**Request for Bids**

**Information Systems**

**(One-Envelope Bidding Process - Without Prequalification)**

**Procurement of:**

**Design, Supply and Installation of the New Single Window (NSW) System in North Macedonia**

**RFB No:** WBTTFP-8929-MK-112C-RFB

**Project:** Western Balkans Trade and Transport Facilitation Project - P162043

**Purchaser:** Ministry of Transport and Communications

**Country:** Republic of North Macedonia

**Issued on:** 22 May 2024

**Specific Procurement Notice**

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Loan No.: IBRD 8929-MK

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Issued on:22 May 2024

1. The Republic of North Macedonia has received financing from the World Bank toward the cost of the Western Balkans Trade and Transport Facilitation Project - P162043, and intends to apply part of the proceeds toward payments under the contract for Design, Supply and Installation of the New Single Window (NSW) System in North Macedonia.

2. The Ministry of Transport and Communications now invites sealed Bids from eligible Bidders for Design, Supply and Installation of the New Single Window (NSW) System in North Macedonia, an integrated IS solution that contains one application with hardware platform.

The brief description of the NSW System includes: The National Single Window (NSW) shall enable a fully electronic submission and processing of all cross-border trade data between the trading community and the concerned government stakeholders. This requires a sound and firm functional and technical architecture that can adapt to the ever-changing environment of global trade.

The NSW shall provide a single facility for traders to electronically submit regulated and harmonized data in order to complete foreign trade transactions. The NSW shall aggregate trade data in a single facility to enable full tracking and monitoring of transactions, for both trade and government institutions. This will lead to simplification of import, export and transit procedures, as well as cost savings, increased efficiency and transparency.

The functional and technical architecture for the NSW shall be aligned with the overall principles defined in the Government of the Republic of North Macedonia and the Macedonian Interoperability Framework (MIF)[[1]](#footnote-2). MIF provides general principles that are relevant to the process of establishing Macedonian public services. They describe the context in which Macedonian public services are decided and implemented. Many of them are closely related and aligned with the principles for the establishment of an NSW. For more info, please kindly refer to the **Section VII - Requirements of the Information System**.

The delivery period for Design, Supply and Installation of the New Single Window (NSW) System is 54 weeks.

Qualification requirements for Bidders stipulated in the RFB - Section III – Evaluation and Qualification Criteria are:

**(i)** Experience

1. Experience implementing similar **Single Window** and **Customs Automated** Information System contracts, in the role of prime supplier, management contractor, JV **Lead** member, or subcontractor for at least the last **five years (2019, 2020, 2021, 2022, 2023)** prior to the applications submission deadline.
2. Participation as a prime supplier, management contractor, JV[[2]](#footnote-3) member, sub-contractor, in at least one (1) contract within the last **five (5) years**, with a value of at least **2.700.000,00 EUR (two million seven hundred thousand EUR),** that have been successfully and substantially completed and that are **similar** to the proposed **NSW** Information System.
3. Similar project will be considered as the project similar in size and with the following scope: (a) design, development and implementation of Single Window and Customs Automated Information System, (b) design, development and implementation of Trader Portal and / or E-customs Management Systems and (c) required hardware to support the NSW software solution - (references as “subcontractors” will be allowed for the bidders or JV partners).
4. The successfully completed similar contracts shall be documented by a copy of an Operational acceptance certificate (or equivalent documentation such as reference letters, satisfactory to the Purchaser) issued by the purchaser(s) of similar contracts.
5. Manufacturer’s authorization - For all powered (active) hardware and/or software components of the Information System which the Bidder does not itself produce, by submission of documentary evidence in its Bid, the Bidder must establish to the Purchaser’s satisfaction that it is not prohibited to supply those components in the Purchaser’s country under the Contract(s) that may result from this procurement.

**(ii)** Financial capacity:

1. Minimum average annual turnover of **3.000.000,00 EUR (three million EUR)**, calculated as total certified payments received for contracts in progress or completed, within the last **three years (2021, 2022,2023).**
2. The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet the following cash-flow requirement: **450,000.00 EUR (Four hundred and fifty thousand EUR)**.
3. If the bidder is a Joint Venture, all partners combined must meet the qualifications requirement and all partners of the Joint Venture shall be liable jointly and severally for the execution of the Contract. For the partner in charge (leader of the Joint Venture) the average annual turnover must not be less than fifty percent (50%) of the total required annual turnover and for each other partners the average annual turnover must not be less than twenty five percent (25%) of the total.

**(iii)** Technical Capacity

The team shall consist of a core team made of key experts with the qualifications and skills defined below and non-key experts, as needed. The Bidder is obliged to ensure adequate staff in terms of expertise and time allocation, as well as needed equipment in order to complete the activities required under the scope of work and to achieve the objectives of this Contract in terms of time, costs, and quality.

The Bidders are encouraged to hire/use local experts for some of the positions below either as individual experts (or from local firms, as sub-consultants or JV members). The Bidders should pay attention to the need to ensure the active participation of local professional skills, and to provide a suitable mix of international and local staff in the team. The team, as a whole, shall include experts familiar with North Macedonia' regulations.

1. One (1) Project Manager - At least a Bachelor’s Degree in Management / Engineering / information technologies / Finance or Trade / Law / Economics / other relevant field with minimum 10 years’ professional experience in project management of ICT for public sector organizations, holding a valid certification of PMP (Project Management Professional, PMI institute or SCRUM Master) or equivalent. ITIL (Information Technology Infrastructure Library) certification will be considered an advantage. Experience as Project Manager/Team Leader of at least two (2) ICT projects for public sector organizations (letter of reference signed by Client is obligatory) and experience in customs system and other trade related agencies. Proven experience in planning and supporting capacity building activities and change management. Experience in Quality assurance/Quality Control (QA/QC) for ICT projects. Proven experience in risk analyses. The Project Manager shall be available during the whole project timeline due to the complexity and number of stakeholders and services to be implemented during the project.
2. One (1) Software Architect / Deputy Project Manager - At least a Bachelor degree in an ICT related discipline (information technologies / electronics / communications / other relevant field), holding a valid certification PMP (PMI institute or SCRUM Master) or equivalent, with at least 10 years of professional experience in developing or implementing strategic information systems plans for public sector organizations and complex enterprise software systems implementation. Extensive knowledge in informatics management and current technology trends would be desirable. The Deputy Project Manager shall be available during the whole project timeline due to the complexity and number of stakeholders and services to be implemented during the project.
3. Two (2) Business Analysts - At least a Bachelor degree in an ICT related discipline (information technologies / other relevant field), with at least 10 years of professional experience in developing or implementing information systems for public sector organizations and complex enterprise software systems implementation. At least one business analyst must have experience with CERTEX technical specifications in EU.
4. One (1) specialist for the implementation of the Storage and Backup solution - at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) holding the architect level of certification with a minimum of 7 years of professional experience.
5. One (1) specialist for the implementation of the Firewall solution - at least a Bachelor degree in an ICT related discipline (information technologies / electronics / communications / other relevant field) holding the highest expert level of certification with a minimum of 7 years of professional experience.
6. Two (2) Database specialists, with at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) and a minimum of 7 years of experience for each specialist. Experience in the solutions with database system, workflow systems, application server and business intelligence. Professional experience in implementing or support of information systems and technology for public sector organizations is required.
7. One (1) certified specialist with professional level for service oriented architecture - at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) with a minimum of 7 years of experience. Prior experience of working with enterprise systems and infrastructure. Experience in the systems and technology for public sector organizations is required.
8. One (1) certified specialists certified (MCPD) or Java developers holding a certification from Microsoft or Oracle or IBM or SQL with a minimum of 7 years of experience. Experience in software and database development, complex enterprise software systems implementation, extensive knowledge in informatics management and current technology trends.
9. One (1) networking specialist in order to support the project team if required - at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) with a minimum of 7 years of experience. Prior experience of working with enterprise systems and infrastructure and conversant on a range of technical issues relevant to the assignment, including servers, networks and communications, software and database development, web services and messaging protocols.
10. One (1) Change Management and Communication specialist - at least Bachelor degree in information technology, informatics management or related area within the public sector, or relevant discipline, with at least 7 years of experience in capacity building, change management implementation and communications.

3. Bidding will be conducted through international competitive procurement using a Request for Bids (RFB) as specified in the World Bank’s “Procurement Regulations for IPF Borrowers” dated July 2016, revised November 2017 and August 2018 (“Procurement Regulations”), and is open to all eligible Bidders as defined in the Procurement Regulations.

4. Interested eligible Bidders may obtain further information from the Project Implementation Unit (PIU) of the Ministry of Transport and Communication, Attn: Mr. Slavko Micevski and/or Ms. Vlasta Ruzinovska and/or Natasha Stojanovska e-mails: [slavko.micevski@piu.mtc.gov.mk](mailto:slavko.micevski@piu.mtc.gov.mk); [vlasta.ruzinovska@piu.mtc.gov.mk](mailto:vlasta.ruzinovska@piu.mtc.gov.mk); [natasha.stojanovska@piu.mtc.gov.mk](mailto:natasha.stojanovska@piu.mtc.gov.mk); [procurement.piu.mtc@gmail.com](mailto:procurement.piu.mtc@gmail.com); and inspect the bidding document during office hours from 09:30 to 15:30at the address given below. **The procedure for obtaining the bidding document is strictly electronically as stated below.**

5. The bidding document in **English language** may be obtained by interested eligible Bidders from the website of the national electronic system for procurement: “ЕСЈН-Заеми/Донации/Грантови-Огласи од меѓународни институции” (<https://www.e-nabavki.gov.mk>) and from the website of the Ministry of Transport and Communications: <http://mtc.gov.mk/javniOglasi>; as well as upon **submission of an written application** to the e-mail addresses stated in the above paragraph No.4. and to the additional e-mail address: [harita.pandovska@piu.mtc.gov.mk](mailto:harita.pandovska@piu.mtc.gov.mk). **All interested eligible Bidders must submit an application via e-mail with contact details for their companies including contact e-mail address immediately after downloading the Bidding Document from the listed websites, to announce that they intend to participate in the bidding process** and to obtain the **Annex 1** - New Single Window (NSW) **Blueprint**, as part of the Bidding Document.Due to the large size of the Annex 1, it will be delivered to Bidders that have submitted applications through WeTransfer: <https://wetransfer.com/>.

6. Bids must be delivered to the **address below** on or before **13:00 o’clock local time on July 05, 2024**. Electronic bidding **will not** be permitted. Late bids **will be rejected**. Bids will be publicly opened in the presence of Bidders’ designated representatives and anyone who choose to attend at the address below on **July 05, 2024,** immediately after the bid submission deadline.

7. **All Bids must be accompanied by a Bid-Securing Declaration**.

8. Attention is drawn to the Procurement Regulations requiring the Borrower to disclose information on the successful bidder’s beneficial ownership, as part of the Contract Award Notice, using the Beneficial Ownership Disclosure Form as included in the bidding document.

9. The address (es) referred to above is:

The address referred to above is:

**Ministry of Transport and Communications**

Project Implementation Unit

Mr. Slavko Micevski and/or Ms. Vlasta Ruzinovska – procurement officers

Street “Crvena Skopska Opstina”, No. 4, 1000 Skopje, Republic of North Macedonia

Tel. + 389 (0)2 3145 531

Mob. + 389 (0)75 494977

**E-mail address:**

[**slavko.micevski@piu.mtc.gov.mk**](mailto:slavko.micevski@piu.mtc.gov.mk)**;**

[**harita.pandovska@piu.mtc.gov.mk**](mailto:harita.pandovska@piu.mtc.gov.mk)**;**

[**vlasta.ruzinovska@piu.mtc.gov.mk**](mailto:vlasta.ruzinovska@piu.mtc.gov.mk)**;**

[**natasha.stojanovska@piu.mtc.gov.mk**](mailto:natasha.stojanovska@piu.mtc.gov.mk)

[**procurement.piu.mtc@gmail.com**](mailto:procurement.piu.mtc@gmail.com)

Web site addresses: <http://mtc.gov.mk/>; and https://www.e-nabavki.gov.mk;

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**Design, Supply and Installation of the New Single Window (NSW) System in North Macedonia**

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Issued on:22 May 2024

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PART 1 – Bidding Procedures

Section I - Instructions to Bidders (ITB)

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**Section I - Instructions to Bidders**

A. General

|  |  |
| --- | --- |
| 1. Scope of Bid | * 1. The Purchaser, as indicated in the BDS, or its duly authorized Purchasing Agent if so specified in the BDS (interchangeably referred to as “the Purchaser” issues this bidding document for the supply and installation of the Information System as specified in Section VII, Purchaser’s Requirements. The name, identification and number of lots (contracts) of this RFB are specified in the BDS. |
|  | * 1. Unless otherwise stated, throughout this bidding document definitions and interpretations shall be as prescribed in the Section VIII, General Conditions of Contract. |
|  | Throughout this bidding document: the term “in writing” means communicated in written form (e.g. by mail, e-mail, fax, including if specified in the BDS, distributed or received through the electronic-procurement system used by the Purchaser) with proof of receipt;if the context so requires, “singular” means “plural” and vice versa; and  1. “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is an official working day of the Borrower. It excludes the Borrower’s official public holidays.  “ES” means environmental and social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH));“Sexual Exploitation and Abuse” “(SEA)” means the following:Sexual Exploitation is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;Sexual Abuse is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.“Sexual Harassment” “(SH)” is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Supplier’s Personnel with other Supplier’s Personnel or Purchaser’s Personnel.“Supplier’s Personnel” is as defined in GCC Sub-Clause 1.1; and“Purchaser’s Personnel” is as defined in GCC Sub-Clause 1.1. A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV |
| 1. Source of Funds | * 1. The Borrower or Recipient (hereinafter called “Borrower”) indicated in the BDS has applied for or received financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount specified in the BDS toward the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.   2. Payments by the Bank will be made only at the request of the Borrower and upon approval by the Bank in accordance with the terms and conditions of the Loan (or other financing) Agreement between the Borrower and the Bank (hereinafter called the Loan Agreement), and will be subject in all respects to the terms and conditions of that Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of equipment, materials or any other goods, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the funds. |
| 1. Fraud and Corruption | * 1. The Bank requires compliance with the Bank’s Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG’s Sanctions Framework, as set forth in Section VI. |
|  | * 1. In further pursuance of this policy, Bidders shall permit and shall cause their agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank. |
| 1. Eligible Bidders | * 1. A Bidder may be a firm that is a private entity, a state-owned enterprise or institution subject to ITB 4.6, or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Bidding process and, in the event the JV is awarded the Contract, during contract execution. Unless specified in the BDS, there is no limit on the number of members in a JV. |
|  | * 1. A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:  directly or indirectly controls, is controlled by or is under common control with another Bidder; orreceives or has received any direct or indirect subsidy from another Bidder; orhas the same legal representative as another Bidder; orhas a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Purchaser regarding this Bidding process; orany of its affiliates participates as a consultant in the preparation of the design or technical specifications of the Information System that are the subject of the Bid; oror any of its affiliates has been hired (or is proposed to be hired) by the Purchaser or Borrower as Project Manager for the Contract implementation; orwould be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; orhas a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the Contract, and/or the Bid evaluation process of such Contract; or (ii) would be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the Bidding process and execution of the Contract. |
|  | * 1. A firm that is a Bidder (either individually or as a JV member) shall not participate as a Bidder or as JV member in more than one Bid except for permitted alternative Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. However, this does not limit the participation of a Bidder as subcontractor in another Bid or of a firm as a subcontractor in more than one Bid. |
|  | * 1. A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed sub-contractors or sub-consultants for any part of the Contract including related Services. |
|  | * 1. A Bidder that has been sanctioned by the Bank, pursuant to the Bank’s Anti-Corruption Guidelines, and in accordance with its prevailing sanctions policies and procedures as set forth in the WBG’s Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be initially selected for, prequalified for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the BDS. |
|  | * 1. Bidders that are state-owned enterprises or institutions in the Purchaser’s Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Purchaser. |
|  | * 1. A Bidder shall not be under suspension from bidding by the Purchaser as the result of the operation of a Bid–Securing Declaration or Proposal-Securing Declaration. |
|  | * 1. Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower’s country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower’s country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. |
|  | * 1. This Bidding is open for all eligible Bidders, unless otherwise specified in ITB 15.2.   2. A Bidder shall provide such documentary evidence of eligibility satisfactory to the Purchaser, as the Purchaser shall reasonably request. |
|  | * 1. A firm that is under a sanction of debarment by the Borrower from being awarded a contract is eligible to participate in this procurement, unless the Bank, at the Borrower’s request, is satisfied that the debarment; (a) relates to fraud or corruption, and (b) followed a judicial or administrative proceeding that afforded the firm adequate due process. |
| 1. Eligible Goods and Services | * 1. The Information Systems to be supplied under the Contract and financed by the Bank may have their origin in any country in accordance with Section V, Eligible Countries. |
|  | * 1. For the purposes of this bidding document, the term “Information System” means all:  the required information technologies, including all information processing and communications-related hardware, software, supplies, and consumable items that the Supplier is required to design, supply and install under the Contract, plus all associated documentation, and all other materials and goods to be designed, supplied, installed, integrated, and made operational; andthe related software development, transportation, insurance, installation, customization, integration, commissioning, training, technical support, maintenance, repair, and other services necessary for proper operation of the Information System to be provided by the selected Bidder and as specified in the Contract. |
|  | * 1. For purposes of ITB 5.1 above, “origin” means the place where the goods and services making the Information System are produced in or supplied from. An Information System is deemed to be produced in a certain country when, in the territory of that country, through software development, manufacturing, or substantial and major assembly or integration of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components. |

B. Contents of Bidding Document

|  |  |
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| 1. Sections of Bidding Document | 6.1 The bidding document consists of Parts 1, 2, and 3, which include all the sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8: |
|  | **PART 1 - Bidding Procedures**  Section I - Instructions to Bidders (ITB)  Section II - Bid Data Sheet (BDS)  Section III - Evaluation and Qualification Criteria  Section IV - Bidding Forms  Section V - Eligible Countries  Section VI - Fraud and Corruption  **PART 2 - Purchaser’s Requirements**  Section VII - Requirements of the IS, including:   * Technical Requirements * Implementation Schedule * System Inventory Tables * Background and Informational Materials   **PART 3 - Contract**  Section VIII - General Conditions of Contract  Section IX -Special Conditions of Contract  Section X - Contract Forms   * 1. The Specific Procurement Notice – Request for Bids (RFB) issued by the Purchaser is not part of this bidding document.   6.3 Unless obtained directly from the Purchaser, the Purchaser is not responsible for the completeness of the document, responses to requests for clarification, the Minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Purchaser shall prevail.  6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information or documentation as is required by the bidding document. |
| 1. Clarification of Bidding Document, Site Visit, Pre-bid Meeting | * 1. A Bidder requiring any clarification of the bidding document shall contact the Purchaser in writing at the Purchaser’s address specified in the BDS or raise its enquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. The Purchaser will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period specified in the BDS. The Purchaser’s shall forward copies of its response to all Bidders who have acquired the bidding document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so specified in the BDS, the Purchaser shall also promptly publish its response at the web page identified in the BDS. Should the Purchaser deem it necessary to amend the bidding document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 23.2. |
|  | * 1. The Bidder may wish to visit and examine the site where the Information System is to be installed and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Bid and entering into a contract. The costs of visiting the site shall be at the Bidder’s own expense.   2. The Bidder and any of its personnel or agents will be granted permission by the Purchaser to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Purchaser and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.   3. The Bidder’s designated representative is invited to attend a pre-Bid meeting and/or a site visit, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.   4. The Bidder is requested, as far as possible, to submit any questions in writing, to reach the Purchaser not later than one week before the meeting.   5. Minutes of the pre-Bid meeting, including the text of the questions raised without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the bidding document in accordance with ITB 6.3. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Purchaser exclusively through the issue of an Addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting.   6. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder. |
| 1. Amendment of Bidding Document | * 1. At any time prior to the deadline for submission of Bids, the Purchaser may amend the bidding document by issuing addenda.   2. Any addendum issued shall be part of the bidding document and shall be communicated in writing to all who have obtained the bidding document from the Purchaser in accordance with ITB 6.3. The Purchaser shall also promptly publish the addendum on the Purchaser’s web page in accordance with ITB 7.1.   3. To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Purchaser may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 23.2 |

C. Preparation of Bids

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| 1. Cost of Bidding | * 1. The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Purchaser shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process. |
| 1. Language of Bid | * 1. The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern. |
| 1. Documents Comprising the Bid | * 1. The Bid submitted by the Bidder shall comprise the following: |
|  | 1. **Letter of Bid** prepared in accordance with ITB 12; |
|  | 1. **Price Schedules** completed in accordance with ITB 12 and ITB 17; |
|  | 1. **Bid Security or Bid-Securing Declaration** in accordance with ITB 20; |
|  | 1. **Alternative Bid:** if permissible, in accordance with ITB 13; |
|  | 1. **Authorization:** written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 21.3; |
|  | 1. **Eligibility of Information System:** documentary evidence established in accordance with ITB 14.1 that the Information System offered by the Bidder in its Bid or in any alternative Bid, if permitted, are eligible; |
|  | 1. **Bidder’s Eligibility:** documentary evidence in accordance with ITB 15 establishing the Bidder’s eligibility and qualifications to perform the contract if its Bid is accepted; |
|  | 1. **Conformity:** documentary evidence established in accordance with ITB 16 that the Information System offered by the Bidder conform to the bidding document; |
|  | 1. **Subcontractors:** list of subcontractors, in accordance with ITB 16.4; |
|  | 1. **Intellectual Property**: a list of: Intellectual Property as defined in GCC Clause 15; 2. all Software included in the Bid, assigning each item to one of the software categories defined in GCC Clause 1.1 (c):    1. System, General Purpose, and Application Software; or    2. Standard and Custom Software; 3. all Custom Materials, as defined in GCC Clause 1.1 (c), included in the Bid; |
|  | All Materials not identified as Custom Materials shall be deemed Standard Materials, as defined in GCC Clause 1.1 (c);  Re-assignments among the Software and Materials categories, if necessary, will be made during the implementation of the Contract according to GCC Clause 39 (Changes to the Information System); and   1. any other document required **in the BDS.** |
|  | * 1. In addition to the requirements under ITB 11.1, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members indicating at least the parts of the Information System to be executed by the respective members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement indicating at least the parts of the Information System to be executed by the respective members. |
|  | * 1. The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid. |
| 1. Letter of Bid and Price Schedules | * 1. The Bidder shall complete the Letter of Bid, including the appropriate Price Schedules, using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITB 21.3. All blank spaces shall be filled in with the information requested. |
| 1. Alternative Bids | * 1. The BDS indicates whether alternative Bids are allowed. If they are allowed, the BDS will also indicate whether they are permitted in accordance with ITB 13.3, or invited in accordance with ITB 13.2 and/or ITB 13.4.   2. When alternatives to the Time Schedule are explicitly invited, a statement to that effect will be included in the BDS, and the method of evaluating different time schedules will be described in Section III, Evaluation and Qualification Criteria.   3. Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the Purchaser’s requirements as described in the bidding document must also provide: (i) a price at which they are prepared to offer an Information System meeting the Purchaser’s requirements; and (ii) all information necessary for a complete evaluation of the alternatives by the Purchaser, including drawings, design calculations, technical specifications, breakdown of prices, and proposed installation methodology and other relevant details. Only the technical alternatives, if any, of the Bidder with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Purchaser.   4. When Bidders are invited in the BDS to submit alternative technical solutions for specified parts of the system, such parts shall be described in Section VII, Purchaser’s Requirements. Technical alternatives that comply with the performance and technical criteria specified for the Information System shall be considered by the Purchaser on their own merits, pursuant to ITB 35. |
| 1. Documents Establishing the Eligibility of the Information System | * 1. To establish the eligibility of the Information System in accordance with ITB 5, Bidders shall complete the country of origin declarations in the Price Schedule Forms, included in Section IV, Bidding Forms. |
| 1. Documents Establishing the Eligibility and Qualifications of the Bidder | * 1. To establish its eligibility and qualifications to perform the Contract in accordance with Section III, Evaluation and Qualification Criteria, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.   2. In the event that prequalification of potential Bidders has been undertaken as stated in the BDS, only Bids from prequalified Bidders shall be considered for award of Contract. These qualified Bidders should submit with their Bids any information updating their original prequalification applications or, alternatively, confirm in their Bids that the originally submitted prequalification information remains essentially correct as of the date of Bid submission. |
| 1. Documents Establishing Conformity of the Information System | * 1. Pursuant to ITB 11.1 (h), the Bidder shall furnish, as part of its Bid, documents establishing the conformity to the bidding documents of the Information System that the Bidder proposes to design, supply and install under the Contract.   2. The documentary evidence of conformity of the Information System to the bidding documents including:   3. Preliminary Project Plan describing, among other things, the methods by which the Bidder will carry out its overall management and coordination responsibilities if awarded the Contract, and the human and other resources the Bidder proposes to use. The Preliminary Project Plan must also address any other topics specified in the BDS. In addition, the Preliminary Project Plan should state the Bidder’s assessment of what it expects the Purchaser and any other party involved in the implementation of the Information System to provide during implementation and how the Bidder proposes to coordinate the activities of all involved parties;   4. written confirmation that the Bidder accepts responsibility for the successful integration and inter-operability of all components of the Information System as required by the bidding documents;   5. an item-by-item commentary on the Purchaser’s Technical Requirements, demonstrating the substantial responsiveness of the Information System offered to those requirements. In demonstrating responsiveness, the Bidder should use the Technical Responsiveness Checklist (or Checklist Format) in the Sample Bidding Forms (Section IV). The commentary shall include explicit cross-references to the relevant pages in the supporting materials included in the bid. Whenever a discrepancy arises between the item-by-item commentary and any catalogs, technical specifications, or other preprinted materials submitted with the bid, the item-by-item commentary shall prevail;   6. support material (e.g., product literature, white papers, narrative descriptions of technologies and/or technical approaches), as required and appropriate; and   7. any separate and enforceable contract(s) for Recurrent Cost items which the BDS ITB 17.2 requires Bidders to bid.   8. References to brand names or model numbers or national or proprietary standards designated by the Purchaser in the bidding documents are intended to be descriptive and not restrictive. Except as specified in the BDS for specific items or standards, the Bidder may substitute alternative brand/model names or standards in its bid, provided that it demonstrates to the Purchaser’s satisfaction that the use of the substitute(s) will result in the Information System being able to perform substantially equivalent to or better than that specified in the Technical Requirements.   9. For major items of the Information System as listed by the Purchaser in Section III, Evaluation and Qualification Criteria, which the Bidder intends to purchase or subcontract, the Bidder shall give details of the name and nationality of the proposed subcontractors, including manufacturers, for each of those items. In addition, the Bidder shall include in its Bid information establishing compliance with the requirements specified by the Purchaser for these items. Quoted rates and prices will be deemed to apply to whichever subcontractor is appointed, and no adjustment of the rates and prices will be permitted.   10. The Bidder shall be responsible for ensuring that any subcontractor proposed complies with the requirements of ITB 4, and that any goods or services to be provided by the subcontractor comply with the requirements of ITB 5 and ITB 16.1. |
| 1. Bid Prices | * 1. All Goods and Services identified in the Supply and Installation Cost Sub-Tables in System Inventory Tables in Section VII, and all other Goods and Services proposed by the Bidder to fulfill the requirements of the Information System, must be priced separately and summarized in the corresponding cost tables in the Sample Bidding Forms (Section IV), in accordance with the instructions provided in the tables and in the manner specified below. |
|  | * 1. Unless otherwise specified in the BDS, the Bidder must also bid Recurrent Cost Items specified in the Technical Requirements, Recurrent Cost Sub-Table of the System Inventory Tables in Section VII (if any). These must be priced separately and summarized in the corresponding cost tables in the Sample Bidding Forms (Section IV), in accordance with the instructions provided in the tables and in the manner specified below:  1. if specified **in the BDS,** the Bidder must also bid separate enforceable contracts for the Recurrent Cost Items not included in the main Contract; 2. prices for Recurrent Costs are all-inclusive of the costs of necessary Goods such as spare parts, software license renewals, labor, etc., needed for the continued and proper operation of the Information System and, if appropriate, of the Bidder’s own allowance for price increases; 3. prices for Recurrent Costs beyond the scope of warranty services to be incurred during the Warranty Period, defined in GCC Clause 29.4 and prices for Recurrent Costs to be incurred during the Post-Warranty Period, defined in SCC Clause 1.1. (e) (xiii), shall be quoted as Service prices on the Recurrent Cost Sub-Table in detail, and on the Recurrent Cost Summary Table in currency totals. |
|  | * 1. Unit prices must be quoted at a level of detail appropriate for calculation of any partial deliveries or partial payments under the contract, in accordance with the Implementation Schedule in Section VII), and with GCC and SCC Clause 12 – Terms of Payment. Bidders may be required to provide a breakdown of any composite or lump-sum items included in the Cost Tables |
|  | * 1. The price of items that the Bidder has left blank in the cost tables provided in the Sample Bid Forms (Section IV) shall be assumed to be included in the price of other items. Items omitted altogether from the cost tables shall be assumed to be omitted from the bid and, provided that the bid is substantially responsive, an adjustment to the bid price will be made during bid evaluation in accordance with ITB 31.3. |
|  | * 1. The prices for Goods components of the Information System are to be expressed and shall be defined and governed in accordance with the rules prescribed in the edition of Incoterms specified in the BDS, as follows:  1. Goods supplied from outside the Purchaser’s country:   Unless otherwise specified **in the BDS**, the prices shall be quoted on a CIP (named place of destination) basis, exclusive of all taxes, stamps, duties, levies, and fees imposed in the Purchaser’s country. The named place of destination and special instructions for the contract of carriage are as specified in the SCC for GCC 1.1 (e) (iii)**.** In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible countries. Similarly, the Bidder may obtain insurance services from any eligible source country;  (b) Locally supplied Goods:  Unit prices of Goods offered from within the Purchaser’s Country, shall be quoted on an EXW (ex factory, ex works, ex warehouse or off-the-shelf, as applicable) basis, including all customs duties, levies, fees, sales and other taxes incurred until delivery of the Goods, but excluding all VAT or sales and other taxes and duties/fees incurred for the Goods at the time of invoicing or sales transaction, if the Contract is awarded;  (c) Inland transportation.   * 1. Unless otherwise stated in the BDS, inland transportation, insurance and related local costs incidental to the delivery of the Goods to the designated Project Sites must be quoted separately as a Service item in accordance with ITB 17.5, whether the Goods are to be supplied locally or from outside the Purchaser’s country, except when these costs are already included in the price of the Goods, as is, e.g., the case, when ITB 17.5 (a) specifies CIP, and the named places of destination are the Project Sites. |
|  | * 1. The price of Services shall be separated into their local and foreign currency components and where appropriate, broken down into unit prices. Prices must include all taxes, duties, levies and fees whatsoever, except only VAT or other indirect taxes, or stamp duties, that may be assessed and/or apply in the Purchaser’s country on/to the price of the Services invoiced to the Purchaser, if the Contract is awarded.   2. Unless otherwise specified in the BDS, the prices must include all costs incidental to the performance of the Services, as incurred by the Supplier, such as travel, subsistence, office support, communications, translation, printing of materials, etc. Costs incidental to the delivery of the Services but incurred by the Purchaser or its staff, or by third parties, must be included in the price only to the extent such obligations are made explicit in these bidding documents (as, e.g., a requirement for the Bidder to include the travel and subsistence costs of trainees). |
|  | * 1. Unless otherwise specified in the BDS, prices quoted by the Bidder shall be fixed during the Bidder’s performance of the Contract and not subject to increases on any account. Bids submitted that are subject to price adjustment will be rejected. |
| 1. Currencies of Bid and Payment | * 1. The currency(ies) of the Bid and currencies of payment shall be the same. The Bidder shall quote in the currency of the Purchaser’s Country the portion of the Bid price that corresponds to expenditures incurred in the currency of the Purchaser’s Country, unless otherwise specified in the BDS.   2. The Bidder may express the Bid price in any currency. If the Bidder wishes to be paid in a combination of amounts in different currencies, it may quote its price accordingly but shall use no more than three foreign currencies in addition to the currency of the Purchaser’s Country. |
| 1. Period of Validity of Bids | * 1. Bids shall remain valid until the date specified in the BDS or any extended date if amended by the Purchaser in accordance with ITB 8. A Bid that is not valid until the date specified in the BDS, or any extended date if amended by the Purchaser in accordance with ITB 8, shall be rejected by the Purchaser as nonresponsive. |
|  | * 1. In exceptional circumstances, prior to the date of expiry of the Bid validity, the Purchaser may request Bidders to extend the date of validity until a specified date. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 20, it shall also be extended for twenty-eight days (28) beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the request shall not be required or permitted to modify its Bid, except as provided in ITB 19.3. |
|  | * 1. If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity specified in accordance with ITB 19.1, the Contract price shall be determined as follows:   (a) in case of fixed price contracts, the contract price shall be the Bid price adjusted by a factor or factors specified **in the BDS**;  (b) in the case of an adjustable price contracts, no adjustments shall be made;  (c) in any case, Bid evaluation shall be based on the Bid Price without taking into consideration the applicable correction from those indicated above. |
| 1. Bid Security | * 1. The Bidder shall furnish as part of its Bid, either a Bid-Securing Declaration or a Bid Security as specified in the BDS, in original form and, in the case of a Bid Security, in the amount and currency specified in the BDS. |
|  | * 1. A Bid-Securing Declaration shall use the form included in Section IV, Bidding Forms. |
|  | * 1. If a Bid Security is specified pursuant to ITB 20.1, the bid security shall be a demand guarantee in any of the following forms at the Bidder’s option: |
|  | * + 1. an unconditional guarantee issued by a non-bank financial institution (such as an insurance, bonding or surety company); |
|  | * + 1. an irrevocable letter of credit; |
|  | * + 1. a cashier’s or certified check; or |
|  | * + 1. another security indicated in the BDS, |
|  | from a reputable source from an eligible country. If an unconditional guarantee is issued by a non-bank financial institution located outside the Purchaser’s Country the issuing non-bank financial institution shall have a correspondent financial institution located in the Purchaser’s Country to make it enforceable unless the Purchaser has agreed in writing, prior to Bid submission, that a correspondent financial institution is not required. In the case of a bank guarantee, the Bid Security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms or in another substantially similar format approved by the Purchaser prior to Bid submission. In either case, the form must include the complete name of the Bidder. The Bid Security shall be valid for twenty-eight (28) days beyond the original date of expiry of the Bid validity, or beyond any extended date if requested under ITB 19.2. |
|  | * 1. If a Bid Security or a Bid-Securing Declaration is specified pursuant to ITB 20.1, any Bid not accompanied by a substantially responsive Bid Security or Bid-Securing Declaration shall be rejected by the Purchaser as non-responsive. |
|  | * 1. If a Bid Security is specified pursuant to ITB 20.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder’s furnishing of the Performance Security pursuant to ITB 48. |
|  | * 1. The Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security. |
|  | * 1. The Bid Security may be forfeited:  1. if a Bidder withdraws its Bid prior to the expiry date of Bid validity specified by the Bidder on the Letter of Bid or any extended date provided by the Bidder; or 2. if the successful Bidder fails to:  sign the Contract in accordance with ITB 47; or  * 1. furnish a performance security in accordance with ITB 48. |
|  | * 1. The Bid Security or the Bid-Securing Declaration of a JV shall be in the name of the JV that submits the bid. If the JV has not been legally constituted into a legally enforceable JV at the time of Bidding, the Bid Security or the Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 11.2. |
|  | * 1. If a Bid Security is not required in the BDS, and;   (a) if a Bidder withdraws its Bid prior to the expiry date of the Bid validity specified by the Bidder on the Letter of Bid, or any extended date provided by the Bidder; or  (b) if the successful Bidder fails to: sign the Contract in accordance with ITB 47; or furnish a Performance Security in accordance with ITB 48;  the Purchaser may, if provided for in the BDS, declare the Bidder disqualified to be awarded a contract by the Purchaser for a period of time as stated in the BDS. |
| 1. Format and Signing of Bid | * 1. The Bidder shall prepare one original of the documents comprising the Bid as described in ITB 11 and clearly mark it “Original.” Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked “Alternative”. In addition, the Bidder shall submit copies of the Bid, in the number specified in the BDS and clearly mark them “Copy.” In the event of any discrepancy between the original and the copies, the original shall prevail.   2. Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information. |
|  | * 1. The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid where entries or amendments have been made shall be signed or initialed by the person signing the Bid. |
|  | * 1. In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.   2. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid. |

D. Submission and Opening of Bids

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| 1. Submission, Sealing and Marking of Bids | * 1. The Bidder shall deliver the Bid in a single, sealed envelope (one (1) envelope process). Within the single envelope the Bidder shall place the following separate, sealed envelopes:      1. in an envelope marked “ORIGINAL”, all documents comprising the Bid, as described in ITB 11; and      2. in an envelope marked “COPIES”, all required copies of the Bid; and,      3. if alternative Bids are permitted in accordance with ITB 13, and if relevant:  1. in an envelope marked “ORIGINAL – ALTERNATIVE BID”, the alternative Bid; and 2. in the envelope marked “COPIES – ALTERNATIVE BID” all required copies of the alternative Bid. | |
|  | * 1. The inner and outer envelopes shall:      1. bear the name and address of the Bidder;      2. be addressed to the Purchaser in accordance with ITB 23.1;   (c) bear the specific identification of this Bidding process indicated in accordance with ITB 1.1; and  (d) bear a warning not to open before the time and date for Bid opening.   * 1. If all envelopes are not sealed and marked as required, the Purchaser will assume no responsibility for the misplacement or premature opening of the Bid. | |
| 1. Deadline for Submission of Bids | * 1. Bids must be received by the Purchaser at the address and no later than the date and time indicated in the BDS. When so specified in the BDS, Bidders shall have the option of submitting their Bids electronically. Bidders submitting Bids electronically shall follow the electronic Bid submission procedures specified in the BDS. | |
|  | * 1. The Purchaser may, at its discretion, extend this deadline for submission of Bids by amending the bidding documents in accordance with ITB 8, in which case all rights and obligations of the Purchaser and Bidders will thereafter be subject to the deadline as extended. | |
| 1. Late Bids | * 1. The Purchaser shall not consider any Bid that arrives after the deadline for submission of Bids, in accordance with ITB 23. Any Bid received by the Purchaser after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder. | |
| 1. Withdrawal, Substitution, and Modification of Bids | * 1. A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 21.3, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be:   (a) prepared and submitted in accordance with ITB 21 and ITB 22 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL,” “SUBSTITUTION,” “MODIFICATION;” and  (b) received by the Purchaser prior to the deadline prescribed for submission of Bids, in accordance with ITB 23. | |
|  | * 1. Bids requested to be withdrawn in accordance with ITB 25.1 shall be returned unopened to the Bidders.   2. No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the date of expiry of the Bid validity specified by the Bidder on the Letter of Bid or any extended date thereof. | |
| 1. Bid Opening | * 1. Except as in the cases specified in ITB 24 and ITB 25.2, the Purchaser shall conduct the Bid opening in public, in the presence of Bidders` designated representatives and anyone who chooses to attend, and at the address, date and time specified in the BDS. Any specific electronic Bid opening procedures required if electronic bidding is permitted in accordance with ITB 23.1, shall be as specified in the BDS. |
|  | * 1. First, envelopes marked “Withdrawal” shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No Bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Bid opening.   2. Next, envelopes marked “Substitution” shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No Bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Bid opening.   3. Envelopes marked “Modification” shall be opened and read out with the corresponding Bid. No Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Bid opening. Only Bids that are opened and read out at Bid opening shall be considered further.   4. Next, all remaining envelopes shall be opened one at a time, reading out: the name of the Bidder and the Bid Price(s), including any discounts and alternative Bids, and indicating whether there is a modification; the presence or absence of a Bid Security or Bid-Securing Declaration; and any other details as the Purchaser may consider appropriate.   5. Only Bids, alternative Bids and discounts that are opened and read out at Bid opening shall be considered further in the evaluation. The Letter of Bid and the Price Schedules are to be initialed by representatives of the Purchaser attending Bid opening in the manner specified in the BDS.   6. The Purchaser shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with ITB 24.1).   7. The Purchaser shall prepare a record of the Bid opening that shall include, as a minimum:  1. the name of the Bidder and whether there is a withdrawal, substitution, or modification; 2. the Bid Price, per lot if applicable, including any discounts; 3. any alternative Bids; and 4. the presence or absence of a Bid Security or a Bid-Securing Declaration.    1. The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders. |
| E. Evaluation and Comparison of Bids | | |
| 1. Confidentiality | * 1. Information relating to the evaluation of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with the Bidding process until the Notification of Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 42. |
|  | * 1. Any effort by a Bidder to influence the Purchaser in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid. |
|  | * 1. Notwithstanding ITB 27.2, from the time of Bid opening to the time of Contract award, if any Bidder wishes to contact the Purchaser on any matter related to the Bidding process, it should do so in writing. |
| 1. Clarification of Bids | * 1. To assist in the examination, evaluation, and comparison of the Bids, and qualification of the Bidders, the Purchaser may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Purchaser shall not be considered. The Purchaser’s request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Purchaser in the evaluation of the Bids, in accordance with ITB 32. |
|  | * 1. If a Bidder does not provide clarifications of its Bid by the date and time set in the Purchaser’s request for clarification, its Bid may be rejected. |
| 1. Deviations, Reservations, and Omissions | * 1. During the evaluation of Bids, the following definitions apply:   (a) “Deviation” is a departure from the requirements specified in the bidding document;  (b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and  (c) “Omission” is the failure to submit part or all of the information or documentation required in the bidding document. |
| 1. Determination of Responsiveness | * 1. The Purchaser’s determination of a Bid’s responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11. |
|  | * 1. A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that;   (a) if accepted, would:  (i) affect in any substantial way the scope, quality, or performance of the Information System specified in the Contract; or  (ii) limit in any substantial way, inconsistent with the bidding document, the Purchaser’s rights or the Bidder’s obligations under the proposed Contract; or  (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids. |
|  | * 1. The Purchaser shall examine the technical aspects of the Bid in particular, to confirm that all requirements of Section VII, Purchaser’s Requirements have been met without any material deviation, reservation, or omission. |
|  | * 1. To be considered for Contract award, Bidders must have submitted Bids: |
|  | (a) for which detailed Bid evaluation using the same standards for compliance determination as listed in ITB 29 and ITB 30.3 confirms that the Bids are commercially and technically responsive, and include the hardware, Software, related equipment, products, Materials, and other Goods and Services components of the Information System in substantially the full required quantities for the entire Information System or, if allowed in the BDS ITB 35.8, the individual Subsystem, lot or slice Bid on; and are deemed by the Purchaser as commercially and technically responsive; and  (b) that offer Information Technologies that are proven to perform up to the standards promised in the bid by having successfully passed the performance, benchmark, and/or functionality tests the Purchaser may require, pursuant to ITB 39.3. |
| 1. Nonmaterial Nonconformities | * 1. Provided that a Bid is substantially responsive, the Purchaser may waive any nonconformity in the Bid that does not constitute a material deviation, reservation or omission. |
|  | * 1. Provided that a Bid is substantially responsive, the Purchaser may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid. |
|  | * 1. Provided that a Bid is substantially responsive, the Purchaser shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component by adding the average price of the item or component quoted by substantially responsive Bidders. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Purchaser shall use its best estimate. |
| 1. Correction of Arithmetical Errors | * 1. Provided that the Bid is substantially responsive, the Purchaser shall correct arithmetical errors on the following basis:  1. where there are errors between the total of the amounts given under the column for the price breakdown and the amount given under the Total Price, the former shall prevail and the latter will be corrected accordingly; 2. where there are errors between the total of the amounts of Schedule Nos. 1 to 5 and the amount given in Schedule No. 6 (Grand Summary), the former shall prevail and the latter will be corrected accordingly; and 3. if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above. |
|  | * 1. A Bidder shall be requested to accept the correction of arithmetical errors. Failure to accept the correction in accordance with ITB 32.1 shall result in the rejection of the Bid. |
| 1. Conversion to Single Currency | * 1. For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified in the BDS. |
| 1. Margin of Preference | * 1. No margin of domestic preference shall apply. |
| 1. Evaluation of Bids | * 1. The Purchaser shall use the criteria and methodologies listed in this ITB and Section III, Evaluation and Qualification criteria. No other evaluation criteria or methodologies shall be permitted. By applying the criteria and methodologies the Purchaser shall determine the Most Advantageous Bid.   Preliminary Examination   * 1. The Purchaser will examine the bids, to determine whether they have been properly signed, whether required sureties have been furnished, whether any computational errors have been made, whether required sureties have been furnished and are substantially complete (e.g., not missing key parts of the bid or silent on excessively large portions of the Technical Requirements). In the case where a pre-qualification process was undertaken for the Contract(s) for which these bidding documents have been issued, the Purchaser will ensure that each bid is from a pre-qualified bidder and, in the case of a Joint Venture, that partners and structure of the Joint Venture are unchanged from those in the pre-qualification   Technical Evaluation   * 1. The Purchaser will examine the information supplied by the Bidders Pursuant to ITB 11 and ITB 16, and in response to other requirements in the Bidding document, taking into account the following factors:   (a) overall completeness and compliance with the Technical Requirements; and deviations from the Technical Requirements;  (b) suitability of the Information System offered in relation to the conditions prevailing at the site; and the suitability of the implementation and other services proposed, as described in the Preliminary Project Plan included in the bid;  (c) achievement of specified performance criteria by the Information System;  (d) compliance with the time schedule called for by the Implementation Schedule and any alternative time schedules offered by Bidders, as evidenced by a milestone schedule provided in the Preliminary Project Plan included in the bid;  (e) type, quantity, quality, and long-term availability of maintenance services and of any critical consumable items necessary for the operation of the Information System;  (f) any other relevant technical factors that the Purchaser deems necessary or prudent to take into consideration;  (g) any proposed deviations in the bid to the contractual and technical provisions stipulated in the bidding documents.   * 1. If specified in the BDS, the Purchaser’s evaluation of responsive Bids will take into account technical factors, in addition to cost factors. The scores to be given to technical factors and sub factors, and the weights to be assigned for the technical factors and cost are specified in the BDS. An Evaluated Bid Score (B) will be calculated for each responsive Bid using the formula, specified in Section III, Evaluation and Qualification Criteria, which permits a comprehensive assessment of the Bid cost and the technical merits of each Bid.   2. Where alternative technical solutions have been allowed in accordance with ITB 13, and offered by the Bidder, the Purchaser will make a similar evaluation of the alternatives. Where alternatives have not been allowed but have been offered, they shall be ignored. |
|  | Economic Evaluation   * 1. To evaluate a Bid, the Purchaser shall consider the following:  1. the Bid price, excluding provisional sums and the provision, if any, for contingencies in the Price Schedules; 2. price adjustment for correction of arithmetic errors in accordance with ITB 32.1; 3. price adjustment due to discounts offered in accordance with ITB 26.8; 4. converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 33; and 5. price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 31.3; 6. the evaluation factors indicated in Section III, Evaluation and Qualification Criteria. |
|  | * 1. If price adjustment is allowed in accordance with ITB 17.9, the estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Bid evaluation. |
|  | * 1. The Purchaser will evaluate and compare the Bids that have been determined to be substantially responsive, pursuant to ITB 30. The evaluation will be performed assuming either that: |
|  | (a) the Contract will be awarded to the Most Advantageous Bid for the entire Information System; or  (b) if specified **in the BDS**, Contracts will be awarded to the Bidders for each individual Subsystem, lot, or slice defined in the Technical Requirements whose Bids result in the Most Advantageous Bid/Bids for the entire System.  In the latter case, discounts that are conditional on the award of more than one Subsystem, lot, or slice may be offered in Bids. Such discounts will be considered in the evaluation of bids as specified **in the BDS**. |
| 1. Comparison of Bids | * 1. The Purchaser shall compare all substantially responsive Bids in accordance with ITB 35.6 to determine the lowest evaluated cost. |
| 1. Abnormally Low Bids | * 1. An Abnormally Low Bid is one where the Bid price in combination with other constituent elements of the Bid appears unreasonably low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid Price. |
|  | * 1. In the event of identification of a potentially Abnormally Low Bid, the Purchaser shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.   2. After evaluation of the price analyses, in the event that the Purchaser determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Purchaser shall reject the Bid. |
| 1. Unbalanced or Front LoadedBids | * 1. If the Bid that is evaluated as the lowest evaluated cost is, in the Purchaser’s opinion, seriously unbalanced or front loaded the Purchaser may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Bid prices with the scope of information systems, installations, proposed methodology, schedule and any other requirements of the bidding document. |
|  | * 1. After the evaluation of the information and detailed price analyses presented by the Bidder, the Purchaser may: |
|  | * + 1. accept the Bid; or     2. if appropriate, require that the total amount of the Performance Security be increased, at the expense of the Bidder, to a level not exceeding twenty percent (20%) of the Contract Price; or     3. reject the Bid. |
| 1. Eligibility and Qualification of the Bidder | * 1. The Purchaser shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive Bid is eligible and meets the qualifying criteria specified in Section III, Evaluation and Qualification Criteria. |
|  | * 1. The determination shall be based upon an examination of the documentary evidence of the Bidder’s qualifications submitted by the Bidder, pursuant to ITB 15, as well as other information the Purchaser deems necessary and appropriate. This determination may include visits or interviews with the Bidder’s clients referenced in its bid and site inspections.   2. Prior to Contract award, the Purchaser will verify that the successful Bidder (including each member of a JV) is not disqualified by the Bank due to noncompliance with contractual SEA/SH prevention and response obligations. The Purchaser will conduct the same verification for each subcontractor proposed by the successful Bidder. If any proposed subcontractor does not meet the requirement, the Purchaser will require the Bidder to propose a replacement subcontractor.   3. Unless otherwise specified in the BDS, the Purchaser will NOT carry out tests at the time of post-qualification, to determine that the performance or functionality of the Information System offered meets those stated in the Technical Requirements. However, if so specified in the BDS the Purchaser may carry out such tests as detailed in the BDS.   4. An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the Purchaser shall proceed to the next lowest evaluated cost or best evaluated Bid, as the case may be, to make a similar determination of that Bidder’s qualifications to perform satisfactorily.   5. The capabilities of the manufacturers and subcontractors proposed by the Bidder that is determined to have offered the Most Advantageous Bid for identified major items of supply or services will also be evaluated for acceptability in accordance with Section III, Evaluation and Qualification Criteria. Their participation should be confirmed with a letter of intent between the parties, as needed. Should a manufacturer or subcontractor be determined to be unacceptable, the Bid will not be rejected, but the Bidder will be required to substitute an acceptable manufacturer or subcontractor without any change to the Bid price. Prior to signing the Contract, the corresponding Appendix to the Contract Agreement shall be completed, listing the approved manufacturers or subcontractors for each item concerned. |
| 1. Purchaser’s Right to Accept Any Bid, and to Reject Any or All Bids | * 1. The Purchaser reserves the right to accept or reject any Bid, and to annul the Bidding process and reject all Bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, bid securities, shall be promptly returned to the Bidders. |
| 1. Standstill Period | * 1. The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be ten (10) Business Days unless extended in accordance with ITB 46. The Standstill Period commences the day after the date the Purchaser has transmitted to each Bidder the Notification of Intention to Award the Contract. Where only one Bid is submitted, or if this contract is in response to an emergency situation recognized by the Bank, the Standstill Period shall not apply. |
| 1. Notification of Intention to Award | * 1. The Purchaser shall send to each Bidder the Notification of Intention to Award the Contract to the successful Bidder. The Notification of Intention to Award shall contain, at a minimum, the following information:  1. the name and address of the Bidder submitting the successful Bid; 2. the Contract price of the successful Bid; 3. the total combined score of the successful Bid; 4. the names of all Bidders who submitted Bids, and their Bid prices as readout and as evaluated prices and technical scores (if applicable); 5. a statement of the reason(s) the Bid (of the unsuccessful Bidder to whom the notification is addressed) was unsuccessful; 6. the expiry date of the Standstill Period; and 7. instructions on how to request a debriefing or submit a complaint during the standstill period; |

F. Award of Contract

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| 1. Award Criteria | * 1. Subject to ITB 40, the Purchaser shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid. The determination of the Most Advantageous Bid will be made in accordance to one of the two options as defined in the BDS. The methodology options are:   (a) when **rated criteria are used**: The Bidder that meets the qualification criteria and whose Bid:  (i) is substantially responsive; and  (ii) is the best evaluated Bid (i.e. the Bid with the highest combined technical/quality/price score); or  (b) when **rated criteria are not used**: The Bidder that meets the qualification criteria and whose Bid has been determined to be:  (i) substantially responsive to the bidding document; and  (ii) the lowest evaluated cost. |
| 1. Purchaser’s Right to Vary Quantities at Time of Award | * 1. The Purchaser reserves the right at the time of Contract award to increase or decrease, by the percentage(s) for items as indicated in the BDS. |
| 1. Notification of Award | * 1. Prior to the date of expiry of the Bid validity and upon expiry of the Standstill Period, specified in ITB 41.1 or any extension thereof, and, upon satisfactorily addressing any complaint that has been filed within the Standstill Period, the Purchaser shall notify the successful Bidder, in writing, that its Bid has been accepted. The notification letter (hereinafter and in the Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Purchaser will pay the Supplier in consideration of the execution of the Contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”). |
|  | * 1. Within ten (10) Business days after the date of transmission of the Letter of Acceptance, the Purchaser shall publish the Contract Award Notice which shall contain, at a minimum, the following information:      + - 1. name and address of the Purchaser;          2. name and reference number of the contract being awarded, and the selection method used;          3. names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;          4. name of Bidders whose Bids were rejected and the reasons for their rejection;          5. the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope; and          6. successful Bidder’s Beneficial Ownership Disclosure Form, if specified in BDS ITB 47.1.   2. The Contract Award Notice shall be published on the Purchaser’s website with free access if available, or in at least one newspaper of national circulation in the Purchaser’s Country, or in the official gazette. The Purchaser shall also publish the Contract Award Notice in UNDB online.   3. Until a formal contract is prepared and executed, the Notification of Award shall constitute a binding Contract. |
| 1. Debriefing by the Purchaser | * 1. On receipt of the Purchaser’s Notification of Intention to Award referred to in ITB 42, an unsuccessful Bidder has three (3) Business Days to make a written request to the Purchaser for a debriefing. The Purchaser shall provide a debriefing to all unsuccessful Bidders whose request is received within this deadline.   2. Where a request for debriefing is received within the deadline, the Purchaser shall provide a debriefing within five (5) Business Days, unless the Purchaser decides, for justifiable reasons, to provide the debriefing outside this timeframe. In that case, the standstill period shall automatically be extended until five (5) Business Days after such debriefing is provided. If more than one debriefing is so delayed, the standstill period shall not end earlier than five (5) Business Days after the last debriefing takes place. The Purchaser shall promptly inform, by the quickest means available, all Bidders of the extended standstill period.   3. Where a request for debriefing is received by the Purchaser later than the three (3) Business Day deadline, the Purchaser should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Public Notice of Award of contract. Requests for debriefing received outside the three (3)-day deadline shall not lead to extension of the standstill period.   4. Debriefings of unsuccessful Bidders may be done in writing or verbally. The Bidder shall bear their own costs of attending such a debriefing meeting. |
| 1. Signing of Contract | * 1. The Purchaser shall send to the successful Bidder the Letter of Acceptance including the Contract Agreement, and, if specified in the BDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request. |
|  | * 1. The successful Bidder shall sign, date and return to the Purchaser, the Contract Agreement within twenty-eight (28) days of its receipt. |
|  | * 1. Notwithstanding ITB 47.2 above, in case signing of the Contract Agreement is prevented by any export restrictions attributable to the Purchaser, to the country of the Purchaser, or to the use of the Information System to be supplied, where such export restrictions arise from trade regulations from a country supplying those Information System, the Bidder shall not be bound by its Bid, always provided, however, that the Bidder can demonstrate to the satisfaction of the Purchaser and of the Bank that signing of the Contract Agreement has not been prevented by any lack of diligence on the part of the Bidder in completing any formalities, including applying for permits, authorizations and licenses necessary for the export of the Information System under the terms of the Contract. |
| 1. Performance Security | * 1. Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Purchaser, the successful Bidder shall furnish the performance security in accordance with the General Conditions, subject to ITB 38.2 (b), using for that purpose the Performance Security Form included in Section X, Contract Forms, or another form acceptable to the Purchaser. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Purchaser. A foreign institution providing a Performance Security shall have a correspondent financial institution located in the Purchaser’s Country. |
|  | * 1. Failure of the successful Bidder to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Purchaser may award the Contract to the Bidder offering the next Most Advantageous Bid. |
| 1. Adjudicator | * 1. Unless the BDS states otherwise, the Purchaser proposes that the person named in the BDS be appointed as Adjudicator under the Contract to assume the role of informal Contract dispute mediator, as described in GCC Clause 43.1. In this case, a résumé of the named person is attached to the BDS. The proposed hourly fee for the Adjudicator is specified in the BDS. The expenses that would be considered reimbursable to the Adjudicator are also specified in the BDS. If a Bidder does not accept the Adjudicator proposed by the Purchaser, it should state its non-acceptance in its Bid Form and make a counterproposal of an Adjudicator and an hourly fee, attaching a résumé of the alternative. If the successful Bidder and the Adjudicator nominated in the BDS happen to be from the same country, and this is not the country of the Purchaser too, the Purchaser reserves the right to cancel the Adjudicator nominated in the BDS and propose a new one. If by the day the Contract is signed, the Purchaser and the successful Bidder have not agreed on the appointment of the Adjudicator, the Adjudicator shall be appointed, at the request of either party, by the Appointing Authority specified in the SCC clause relating to GCC Clause 43.1.4, or if no Appointing Authority is specified there, the Contract will be implemented without an Adjudicator. |
| 1. Procurement Related Complaint | * 1. The procedures for making a Procurement-related Complaint are as specified in the BDS. |

Section II - Bid Data Sheet (BDS)

The following specific data for the Information System to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions in the BDS shall prevail over those in ITB.

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| **ITB Reference** | **A. General** | |
| **ITB 1.1** | The reference number of the Request for Bids (RFB) is:  **WBTTFP-8929-MK-112C-RFB**  The Employer is: **Ministry of Transport and Communications**  The name of the RFB is: **Design, Supply and Installation of the New Single Window (NSW) System in North Macedonia**  The number and identification of lots (contracts) comprising this RFB is: **Not applicable** | |
| **ITB 1.3 (a)** | Electronic Procurement**shall not** be applicable to this procurement. | |
| **ITB 2.1** | The Borrower is **Republic of North Macedonia,** implementing agency is **Ministry of Transport and Communications** listed here as Employer.  The beneficiary is **Customs Administration.**  Loan or Financing Agreement amount: **26,200,000.00 EUR**  The name of the Project is:  **Western Balkans Trade and Transport Facilitation Project - P162043** | |
| **ITB 4.1** | Maximum number of members in the JV shall be: **not limited** | |
| ITB 4.5 | A list of debarred firms and individuals is available on the Bank’s external website: <http://www.worldbank.org/debarr.> |
| **B. Bidding Document** | |
| **ITB 7.1** | For **Clarification of Bid purposes** only, the Purchaser’s address is:  Ministry of Transport and Communications  **Project Implementation Unit**  For the attention: Mr. Slavko Micevski and/or Ms. Vlasta Ruzinovska  Title/position: procurement officers  Address: Street “Crvena Skopska Opstina”, No. 4,  City: Skopje, ZIP Code: 1000  Country: Republic of North Macedonia  Telephone: + 389 (0)2 3145 531; +389 (0)75 494977  **Electronic mail addresses (obligatory)**:  [**slavko.micevski@piu.mtc.gov.mk**](mailto:slavko.micevski@piu.mtc.gov.mk)**;**  [**harita.pandovska@piu.mtc.gov.mk**](mailto:harita.pandovska@piu.mtc.gov.mk)**;**  [**vlasta.ruzinovska@piu.mtc.gov.mk**](mailto:vlasta.ruzinovska@piu.mtc.gov.mk)**;**  [**natasha.stojanovska@piu.mtc.gov.mk**](mailto:natasha.stojanovska@piu.mtc.gov.mk)  [**procurement.piu.mtc@gmail.com**](mailto:procurement.piu.mtc@gmail.com)  **Note to Bidders:**  **The procedure for submission of requests for clarifications by the bidders is strictly electronically through e-mail to the four (4) electronic mail addresses stated above. Other way of submission of requests for clarifications is not acceptable.**  **All interested Bidders must submit an application electronically through e-mail to the four (4) electronic mail addresses stated above with contact information for their companies including contact e-mail address immediately after downloading of the Bidding Document from the listed websites to announce that they intend to participate in the bidding process** and to obtain the **Annex 1** - New Single Window (NSW) **Blueprint**, as part of the Bidding Document.Due to the large size of the Annex 1, it will be delivered to Bidders that have submitted applications through WeTransfer: <https://wetransfer.com/>  Requests for clarification should be received by the Purchaser no later than: **14 (fourteen) days prior to the bid opening date.**  Web pages: [**https://www.e-nabavki.gov.mk**](https://www.e-nabavki.gov.mk)**; and** [**http://mtc.gov.mk/javniOglasi**](http://mtc.gov.mk/javniOglasi)**;** | | |
| **ITB 7.4** | A Pre-Bid meeting **shall not be** organized.  A site visit conducted by the Employer **shall not be** organized. | | |
| **C. Preparation of Bids** | | | |
| **ITB 10.1** | The language of the Bid is: **English**.  All correspondence exchange shall be in **English** language.  Language for translation of supporting documents and printed literature is **English language***.* | | |
| **ITB 11.1 (k)** | The Bidder shall submit with its Bid the following additional documents:  The additional documents shall include the following:Code of Conduct for Supplier’s Personnel (ES)  The Bidder shall submit its Code of Conduct that will apply to the Supplier’s Personnel (as defined in GCC sub-clause 1.1) employed in the execution of the Contract at the Project Site/s to ensure compliance with the Supplier’s Environmental and/or Social obligations under the Contract, as applicable. The Bidder shall use for this purpose the Code of Conduct form provided in Section IV. No substantial modifications shall be made to this form, except that the Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/risks. | | |
| **ITB 13.1** | Alternative Bids **are not** permitted. | | |
| **ITB 13.2** | Alternatives to the Time Schedule **are not**permitted. | | |
| **ITB 13.4** | Alternative technical solutions shall be permitted for the following parts of the Information System: **none.** | | |
| **ITB 15.2** | Prequalification **has not** been undertaken. | | |
| **ITB 16.2 (a)** | In addition to the topics described in ITB Clause 16.2 (a), the Preliminary Project Plan must address the following topics to implement the Requirements of the Information System presented in the Section VII:   1. Project Organization and Management Sub-Plan, including management authorities, responsibilities, and contacts, validation of requirements for hardware purchase and software development, as well as task, time and resource-bound schedules (in GANTT format); 2. Implementation Sub-Plan (including all phases of software design, development and implementation); 3. Delivery and Installation Sub-Plan for hardware; 4. Training Sub-Plan; 5. Testing and Quality Assurance Sub-Plan (for all software and hardware components); 6. Warranty Defect Repair and Technical Support Service Sub-Plan | | |
| **ITB 16.3** | In the interest of effective integration, cost-effective technical support, and reduced re-training and staffing costs, Bidders shall offer the following items:   * **Software license – Relational Database Management System Type 1 (Gov) - QTY 4 for Primary Site** * **Software license – Relational Database Management System Type 2 (Gov) – QTY 2 for DR site**   All provided licenses must be compliant with Custom Administration datacenter where NSW System will be deployed. Version must be compatible with Custom Administration data center already deployed licenses (please see Section 1.3.8.1. Current Hardware architecture in the Customs Administration.) | | |
| **ITB 17.2** | The Bidder **must not** bid Recurrent Cost Items | | |
| **ITB 17.2** | The Bidder **must not** bid for contracts for Recurrent Cost Items not included in the main Contract. | | |
| **ITB 17.5** | The Incoterms edition is: **Incoterms 2020** | | |
| **ITB 17.5 (a)** | Named place of destinationis:Customs Administration of Republic of North Macedonia, str. Lazar Licenoski 13, 1000 Skopje*.* | | |
| **ITB 17.6** | Named place of final destination (or Project site) is: Customs Administration server room. | | |
| **ITB 17.8** | **There are no modifications to ITB 17.8** | | |
| **ITB 17.9** | The prices quoted by the Bidder**shall not**be subject to adjustment during the performance of the Contract. | | |
| **ITB 18.1** | The Bidder **is not** required to quote in the currency of the Purchaser’s Country the portion of the Bid price that corresponds to expenditures incurred in that currency. | | |
| **ITB 19.1** | The Bid shall be valid until: **November 11, 2024** | | |
| **ITB 19.3 (a)** | The Bid price shall be adjusted by the following factor(s): **not applicable.** | | |
| **ITB 20.1** | A Bid Security **shall not be**required.  A **Bid-Securing Declaration** **shall be** required.  If a Bid Security shall be required, the amount and currency of the Bid Security shall be: **not applicable.** | | |
| **ITB 20.3 (d)** | Other types of acceptable securities: **none** | | |
| **ITB 20.9** | If the Bidder performs any of the actions prescribed in ITB 20.9 (a) or (b), the Purchaser will declare the Bidder ineligible to be awarded contracts by the Purchaser for a period of**5 (five) years** starting from the date the Bidder performs any of the actions. | | |
| **ITB 21.1** | In addition to the original of the Bid, the number of copies is: **2 (two)**  **Note:**  The Bidders are strongly encouraged to supply with the original Bid, **one electronic copy of their bid** (including Price schedules and printed materials such as financial statements, brochures etc.) in **readable .pdf format** and Price Schedules in separate **excel format**, for the purposes of easier evaluation of their bids. However, the original hard copy of Bid shall prevail. If an electronic copy (on CD or USB) of the bid is not submitted it shall not be considered as ground for non-compliant bid. | | |
| **ITB 21.3** | The written confirmation of authorization to sign on behalf of the Bidder shall consist of**: Power of Attorney**  The **PoA** issued must precisely refer to this Bidding process in particular.  In the case of Bids submitted by an existing or intended JV, **PoA must be signed by all parties** (i) stating that all parties shall be jointly and severally liable and (ii) nominating a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution. | | |
| **D. Submission and Opening of Bids** | | | |
| **ITB 23.1** | For **Bid submission purposes** only, the Purchaser’s address is:  Ministry of Transport and Communications  **Project Implementation Unit**  For the attention: Mr. Slavko Micevski and/or Ms. Vlasta Ruzinovska and/or Natasha Stojanovska  Title/position: procurement officers  Address: Street “Crvena Skopska Opstina”, No. 4,  Floor/Room number: **Ground Floor - Archive**  City: Skopje, ZIP Code: 1000  Country: Republic of North Macedonia  Telephone: + 389 (0)2 3145 531; +389 (0)75 494977  **The deadline for Bid submission is:**  Date: **July 05, 2024**  Time: **13:00 p.m. local time**  Bidders **shall not** have the option of submitting their Bids electronically. | | |
| **ITB 26.1** | The Bid opening shall take place at:  Ministry of Transport and Communications  **Project Implementation Unit**  Address: Street “Crvena Skopska Opstina”, No. 4,  Floor/Room number: **Fourth floor, Conference hall**  City: Skopje, ZIP Code: 1000  Country: Republic of North Macedonia  Date: **July 05, 2024**  Time: **immediately after the bid submission deadline.** | | |
| **ITB 26.1** | The electronic Bid opening procedures shall be: **not applicable**. | | |
| **ITB 26.6** | The Letter of Bid and Price Schedules shallbe initialed by **2 (two)** representatives of the Purchaser conducting Bid opening*.* | | |
| **E. Evaluation, and Comparison of Bids** | | | |
| **ITB 33.1** | The currency that shall be used for Bid evaluation and comparison purposes to convert at the selling exchange rate all Bid prices expressed in various currencies into a single currency is: **EUR**  The source of exchange rate shall be: **National Bank of the Republic of North Macedonia**  The date for the exchange rate shall be*:* **same as deadline for submission of the Bids.** | | |
| **ITB 35.3** | The Purchaser’s evaluation of responsive ***will take*** into account scored technical factors, in addition to cost factors*.* The technical score is 30% and the financial score is 70%.  The technical factors (sub-factors) andthe corresponding weight out of 100% are:   |  |  | | --- | --- | | **Technical Factor** | **Weight in percentage** | | ***Experience***: Experience of the bidder in successfully implementing a similar NSW Information System (based on official final acceptance certificates issued by the customers/institutions and/or reference letter). 0%–15% - means that the experience is not adequately presented; no relevant information to demonstrate the requirement; 16%–49% - for the required experience being present but showing deficiencies such as insufficient or information that lacks clarity; 50%–79% - for meeting the requirements; sufficient information to demonstrate how the requirement is met; 80%–89% - for marginally exceeding the requirements; sufficient information to demonstrate that the requirement will be marginally exceeded; 90%–100% - for significantly exceeding the requirements; sufficient information that significantly exceed the requirements and/or contributes to significant value addition. | **15%** | | ***Project Planning and Management***: Detailed project planning proposal and structured project management methodology proposed. Will be considered a deviation for no adequate project planning and management methodology score 0%–15%, 16%–49% for not enough details providedto demonstrate how the project plan and project management methodology will be implemented, 50%–79% - for meeting the requirements; sufficient information to demonstrate how the project plan and project management methodology will be implemented; 80%–89% - for a detailed project planning and methodology that marginally exceeds the requirements; 90%–100% - for a detailed project planning and project management methodology that significantly exceeds the requirements.  ***Requirements of the Information System***: Adequacy and quality of the proposed methodology, and work plan in responding to the Requirements of the Information System presented in the Section VII and compliance with functional and non-functional requirements. Score 0%–15% for not adequately presenting how the requirements will be met; 16%–49% for not enough details provided to demonstrate how the requirements will be met, 50%–79% - for meeting the requirements; sufficient information to demonstrate how the requirement is met; 80%–89% - for marginally exceeding the requirements; sufficient information to demonstrate that the requirement will be marginally exceeded; 90%–100% - for significantly exceeding the requirements; sufficient information that significantly exceed the requirements and/or contributes to significant value addition. | **10 %**  **25%** | | ***Software and Hardware Architecture – (Application, Development, Open, Scalable, Extensible):*** How well is the application architecture compared to best industry practices and latest technology and trends? Can the system easily be enhanced with new capabilities without having to make major changes to the system infrastructure? Score 0%–15% for not adequately presenting how the requirements will be met; 16%–49% for not enough details provided to demonstrate how the requirements will be met, 50%–79% - for meeting the requirements; sufficient information to demonstrate how the requirement is met; 80%–89% - for marginally exceeding the requirements; sufficient information to demonstrate that the requirement will be marginally exceeded; 90%–100% - for significantly exceeding the requirements; sufficient information that significantly exceeds the requirements and/or contributes to significant value addition.  ***Transfer of Knowledge & Training***: Transfer of knowledge to the customer. Quality of the End-user training approach. a. Transfer of knowledge to ICT staff:  Score 0%–15% for not adequately presenting how the training activities will be undertaken; 16%–49% for not enough details provided to demonstrate the types of trainings that will be implemented, 50%–79% - for meeting the requirements; sufficient information to demonstrate how the training will be implemented and training courses; 80%–89% - for marginally exceeding the requirements; sufficient information to demonstrate additional training activities that might be required 90%–100% - for significantly exceeding the requirements; sufficient information that demonstrate additional training activities for all end users.  ***Key Experts’ Qualifications and Competence for the Assignment:*** Relevant experience and skills of the proposed key experts’ qualifications (education, training, and experience); adequacy for the assignment (relevant experience in the ICT sector/similar assignments); relevant experience in the region (working level fluency in Macedonian language/knowledge of local culture or administrative system, government organization, etc.); participation of nationals among proposed Key Experts. Score: 0%–15% - means that the experience of key experts is not adequately presented; no relevant information to demonstrate the requirement; 16%–49% - for the required experience being present but showing deficiencies such as insufficient or information that lacks clarity; 50%–79% - for meeting the requirements; sufficient information to demonstrate how the requirement is met; 80%–89% - for marginally exceeding the requirements; sufficient information to demonstrate that the requirement will be marginally exceeded; 90%–100% - for significantly exceeding the requirements; sufficient information that significantly exceed the relevant experience and skills of the proposed key experts.  **TOTAL** | **25%**  **10%**  **15%**  **100%** |   **Calculation of Final Technical Score**  Using a Comparative Scoring Methodology, the final technical score is divided by the highest technical score  *×100 = Total Technical Score × Technical Weighting (****30%****)*  **Financial Cost Evaluation**  ×*100 = Evaluated Bid Price × Financial Weighting (****70%****)*  **Combined Technical Evaluation and Financial Cost Evaluation** by Applying Overall Weightings determine award recommendation.  The technical proposal scoring methodology is specified in Section III- Evaluation and Qualification Criteria. | | |
| **ITB 35.4** | Discount Rate (I) for net present value calculations of recurrent costs: **not applicable.** | | |
| **ITB 35.8** | Bids for Subsystems, lots, or slices of the overall Information System **will not** be accepted. | | |
| **ITB 39.4** | As additional qualification measures, the Information System (or components/parts of it) offered by the Bidder with the Most Advantageous Bid may be subjected to the following tests and performance benchmarks prior to Contract award: **none.** | | |
| F. Award of Contract | | | |
| **ITB 43** | The award will be made on the basis of **rated criteria** (Combined Technical Evaluation and Financial Cost Evaluation) pursuant to ITB 35.7, if applicable, in accordance with Section III, Evaluation and Qualification Criteria. | | |
| **ITB 44** | The maximum percentage by which quantities may be increased is: 10%  The maximum percentage by which quantities may be decreased is: 10% | | |
| **ITB 47.1** | The successful Bidder **shall** be required to submit the Beneficial Ownership Disclosure Form. | | |
| **ITB 49** | The proposed Adjudicator is:  **There will be no Adjudicator under this Contract.** | | |
| **ITB 50.1** | The procedures for making a Procurement-related Complaint are detailed in the “[Procurement Regulations for IPF Borrowers](http://www.worldbank.org/en/projects-operations/products-and-services/brief/procurement-new-framework) (Annex III).” If a Bidder wishes to make a Procurement-related Complaint, the Bidder should submit its complaint following these procedures:  In Writing (scanned copy) as quick as possible, **only electronically by e-mail**, to below stated **four** e-mail addresses:  **Employer**: **Ministry of Transport and Communications**  **Project Implementation Unit**  **For the attention: Mr. Slavko Micevski and/or Ms. Vlasta Ruzinovska**  **Title/position: procurement officers**  **Email address*:***  [**slavko.micevski@piu.mtc.gov.mk**](mailto:slavko.micevski@piu.mtc.gov.mk)**;**  [**harita.pandovska@piu.mtc.gov.mk**](mailto:harita.pandovska@piu.mtc.gov.mk)**;**  [**vlasta.ruzinovska@piu.mtc.gov.mk**](mailto:vlasta.ruzinovska@piu.mtc.gov.mk)**;**  [**natasha.stojanovska@piu.mtc.gov.mk**](mailto:natasha.stojanovska@piu.mtc.gov.mk)  [**procurement.piu.mtc@gmail.com**](mailto:procurement.piu.mtc@gmail.com)  In summary, a Procurement-related Complaint may challenge any of the following:   1. the terms of the Bidding Documents; and 2. the Purchaser’s decision to award the contract.   **Note to Bidders:**  **Scanned copy of submitted Complaint document(s) will be treated as if they are originals.** | | |

Résumé of the proposed Adjudicator: **not applicable.**

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| --- |
| Section III - Evaluation and Qualification Criteria (Without Prequalification) |

This Section contains all the criteria that the Purchaser shall use to evaluate Bids and qualify Bidders. No other factors, methods or criteria shall be used. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.

In addition to the criteria listed in ITB 35.3 (a) to (e), the following factors shall apply:

1. Technical Evaluation **(ITB 35.3 and ITB 35.4)**

If, in addition to the cost factors, the Purchaser has chosen to give weight to important technical factors (i.e., the price weight, X, is less than 1 in the evaluation), the total technical points assigned to each Bid in the Evaluated Bid Formula will be determined by adding and weighting the scores assigned by an evaluation committee to technical features of the Bid **in accordance with the BDS** and the scoring methodology below:

**Technical proposal scoring methodology**

(a) During the evaluation process, the evaluation committee will assign each desirable/preferred feature a whole number score from 0%–100%, where 0%–15% - means that the feature is not adequately presented; no relevant information to demonstrate the requirement; 16%–49% - for the required feature being present but showing deficiencies such as insufficient or information that lacks clarity; 50%–79% - for meeting the requirements; sufficient information to demonstrate how the requirement is met; 80%–89% - for marginally exceeding the requirements; sufficient information to demonstrate that the requirement will be marginally exceeded; 90%–100% - for significantly exceeding the requirements; sufficient information that significantly exceed the requirements and/or contributes to significant value addition.

(b) The score for each feature (i) within a category (j) will be combined with the scores of features in the same category as a weighted sum to form the Category Technical Score using the following formula:



where:

*tji* = the technical score for feature “i” in category “j”

*wji* = the weight of feature “i” in category “j”

*k* = the number of scored features in category “j”

and 

(c) The Category Technical Scores will be combined in a weighted sum to form the total Technical Bid Score using the following formula:



where:

*Sj* = the Category Technical Score of category “j”

*Wj* = the weight of category “j” as specified in the BDS

*n* = the number of categories

and 

1. Economic Evaluation

The following factors and methods will apply:

**(a)** **Time Schedule**: **not applicable**

**(b) Recurrent Costs: not applicable**

**(c) Specific additional criteria: not applicable**

The relevant evaluation method, if any, shall be as follows: **not applicable**

1. Technical alternatives: **not applicable**

If invited in accordance with ITB 13.4, will be evaluated as follows:**none**

1. Combined Evaluation

The Purchaser will evaluate and compare the Bids that have been determined to be substantially responsive, pursuant to ITB 30.

If indicated by the BDS, the Purchaser’s evaluation of responsive Bids will take into account technical factors, in addition to cost factors.

In such a case, an Evaluated Bid Score (B) will be calculated for each responsive Bid using the following formula, which permits a comprehensive assessment of the Bid price and the technical merits of each Bid:

|  |
| --- |
| where  *C* = Evaluated Bid Price  *C low* = the lowest of all Evaluated Bid Prices among responsive Bids  *T* = the total Technical Score awarded to the Bid  *Thigh* = the Technical Score achieved by the Bid that was scored best among all responsive Bids  *X* = weight for the Price as specified in the BDS  The Bid with the best evaluated Bid Score (B) among responsive Bids shall be the Most Advantageous Bid provided the Bidder was prequalified and/or it was found to be qualified to perform the Contract in accordance with ITB 39. |

1. **Qualification**

| **Factor** | 5.1 Eligibility | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Sub-Factor | Criteria | | | | | Documentation Required |
| Requirement | Bidder | | | |
| **Single Entity** | Joint Venture (existing or intended) | | |
| **All members combined** | Each member | **At least one member** |
| 5.1.1 Nationality | Nationality in accordance with ITB 4.4. | Must meet requirement | Must meet requirement | Must meet requirement | N / A | Form ELI –5.1.1 and 5.1.2, with attachments |
| 5.1.2 Conflict of Interest | No- conflicts of interests as described in ITB 4.2. | Must meet requirement | Must meet requirement | Must meet requirement | N / A | Letter of Bid |
| 5.1.3 Bank Ineligibility | Not having been declared ineligible by the Bank as described in ITB 4.5. | Must meet requirement | Must meet requirement | Must meet requirement | N / A | Letter of Bid |
| 5.1.4 State owned Entity of the Borrower country | Compliance with conditions of ITB 4.6 | Must meet requirement | Must meet requirement | Must meet requirement | N / A | Form ELI –5.1.1 and 5.1.2, with attachments |
| 5.1.5 United Nations resolution or Borrower’s country law | Not having been excluded as a result of prohibition in the Borrower’s country laws or official regulations against commercial relations with the Bidder’s country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.8 | Must meet requirement | Must meet requirement | Must meet requirement | N / A | Letter of Bid |

| **Factor** | 5.2 Historical Contract Non-Performance | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| Sub-Factor | Criteria | | | | | **Documentation Required** |
| Requirement | Bidder | | | |
| **Single Entity** | Joint Venture (existing or intended) | | |
| **All members combined** | **Each member** | **At least one member** |

## 

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| History of non-performing contracts | Non-performance of a contract[[3]](#footnote-4) did not occur as a result of Bidder’s default since **1st January 2019**. | Must meet requirement by itself or as member to past or existing JV | N / A | Must meet requirement[[4]](#footnote-5) | N / A | Form CON - 2 |
| Suspension | Not under suspension based on execution of a Bid Securing Declaration or Proposal Securing Declaration pursuant to ITB 4.7 and ITB 20.10 | Must meet requirement | N / A | Must meet requirement | N / A | Letter of Bid |
| Pending Litigation | Bidder’s financial position and prospective long-term profitability still sound according to criteria established in 2.3.1 below and assuming that all pending litigation will be resolved against the Bidder. | Must meet requirement by itself or as member to past or existing JV | N / A | Must meet requirement | N / A | Form CON – 2 |
| Litigation History | No consistent history of court/arbitral award decisions against the Bidder[[5]](#footnote-6)since **1st January 2019** | Must meet requirement | Must meet requirement | Must meet requirement | N/A | Form CON – 2 |
| Bank’s SEA and/or SH Disqualification[[6]](#footnote-7) | At the time of Contract Award, not subject to disqualification by the Bank for non-compliance with SEA/ SH obligations | Must meet requirement  (including each subcontractor proposed by the Bidder) | N/A | Must meet requirement (including each subcontractor proposed by the Bidder) | N/A | Letter of Bid, Form CON-3 |

| **Factor** | 5.3 Financial Situation | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Sub-Factor** | Criteria | | | | | Documentation Required |
| Requirement | Bidder | | | |
| **Single Entity** | Joint Venture (existing or intended) | | |
| **All members combined** | **Each member** | **At least one member** |
| 5.3.1 Historical Financial Performance | Submission of audited balance sheets or if not required by the law of the Bidder’s country, other financial statements acceptable to the Purchaser, for the last **three years (2021, 2022, 2023)** to demonstrate the current soundness of the Bidders financial position and its prospective long-term profitability. | Must meet requirement | N / A | Must meet requirement | N / A | Form FIN – 5.3.1 with attachments |
| 5.3.2 Average Annual Turnover | Minimum average annual turnover of **3.000.000,00 EUR (three million EUR)**, calculated as total certified payments received for contracts in progress or completed, within the last **three years (2021, 2022, 2023)** | Must meet requirement | Must meet requirement | Must meet  **twenty five percent (25%)** of the requirement | **Lead member** must meet  **fifty percent (50%)** of the requirement | Form FIN –5.3.2 |
| 5.3.3 Financial Resources | The Bidder must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real assets, lines of credit, and other financial means, other than any contractual advance payments to meet the following cash-flow requirement:  **450,000.00 EUR (Four hundred and fifty thousand EUR )** | Must meet requirement | Must meet requirement | N/A | N/A | Form FIN –5.3.3 |

| **Factor** | 5.4 Experience | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Sub-Factor** | Criteria | | | | | Documentation Required |
| **Requirement** | Bidder | | | |
| Single Entity | **Joint Venture (existing or intended)** | | |
| **All members combined** | **Each member** | **At least one member** |
| 5.4.1 General Experience | Experience implementing similar **Single window** and **Customs Automated** Information System contracts in the role of prime supplier, management contractor, JV member, or subcontractor for at least the last **five years (2019, 2020, 2021, 2022, 2023)** prior to the applications submission deadline. | Must meet requirement | N/A | N/A | **Lead member of the JV**  **Must meet requirement** | Form EXP-5.4.1 |
| 5.4.2 Specific Experience | Participation as a prime supplier, management contractor, JV[[7]](#footnote-8) member, sub-contractor, in at least one (1) contract within the last **five (5) years (2019, 2020, 2021, 2022, 2023)**, each with a value of at least **2.700.000,00 EUR (two million seven hundred thousand EUR)**, that have been successfully and substantially completed and that is **similar** to the proposed **NSW** Information System**.**  Similar project will be considered as the project similar in size and with the following scope: (a) design, development and implementation of Single Window and Customs Automated Information System, (b) design, development and implementation of Trader Portal and / or E-customs Management Systems and (c) required hardware to support the NSW software solution.  The successfully completed similar contracts shall be documented by a copy of an Operational acceptance certificate (or equivalent documentation as Reference letter, satisfactory to the Purchaser) issued by the employer(s)/purchaser(s).  Substantial completion shall be based on **70%** or more works completed under the contract and documented by a copy of an Operational acceptance certificate (or equivalent documentation as Reference letter, satisfactory to the Purchaser) issued by the employer(s)/purchaser(s). | Must meet requirement | Must meet requirement | N / A | Must meet requirement | Form EXP 5.4.2 |

**5.5 Key Personnel**

The Bidder must demonstrate that it will have suitably qualified key personnel. The Bidder shall complete the relevant Forms in Section IV, Bidding Forms.

The team shall consist of a core team made of key experts with the qualifications and skills defined below and non-key experts, as needed. The Bidder is obliged to ensure adequate staff in terms of expertise and time allocation, as well as needed equipment in order to complete the activities required under the scope of work and to achieve the objectives of this Contract in terms of time, costs, and quality.

The Bidders are encouraged to hire/use local experts for some of the positions below either as individual experts (or from local firms, as sub-consultants or JV members). The Bidders should pay attention to the need to ensure the active participation of local professional skills, and to provide a suitable mix of international and local staff in the team. The team, as a whole, shall include experts familiar with North Macedonia' regulations.

1. One (1) Project Manager - At least a Bachelor Degree in Management / Engineering / information technologies / Finance or Trade / Law / Economics / other relevant field with minimum 10 years’ professional experience in project management of ICT for public sector organizations, holding a valid certification of PMP (Project Management Professional, PMI institute or SCRUM Master) or equivalent. ITIL (Information Technology Infrastructure Library) certification will be considered an advantage. Experience as Project Manager/Team Leader of at least two (2) ICT projects for public sector organizations (letter of reference signed by Client is obligatory) and experience in customs system and other trade related agencies. Proven experience in planning and supporting capacity building activities and change management. Experience in Quality assurance/Quality Control (QA/QC) for ICT projects. Proven experience in risk analyses. The Project Manager shall be available during the whole project timeline due to the complexity and number of stakeholders and services to be implemented during the project.
2. One (1) Software Architect / Deputy Project Manager - At least a Bachelor degree in an ICT related discipline (information technologies / electronics / communications / other relevant field), holding a valid certification PMP (PMI institute or SCRUM Master) or equivalent, with at least 10 years of professional experience in developing or implementing strategic information systems plans for public sector organizations and complex enterprise software systems implementation. Extensive knowledge in informatics management and current technology trends would be desirable. The Deputy Project Manager shall be available during the whole project timeline due to the complexity and number of stakeholders and services to be implemented during the project.
3. Two (2) Business Analysts At least a Bachelor degree in an ICT related discipline (information technologies / other relevant field), with at least 10 years of professional experience in developing or implementing information systems for public sector organizations and complex enterprise software systems implementation. At least one business analyst must have experience with CERTEX technical specifications in EU.
4. One (1) specialist for the implementation of the Storage and Backup solution - at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) holding the architect level of certification with a minimum of 7 years of professional experience.
5. One (1) specialist for the implementation of the Firewall solution - at least a Bachelor degree in an ICT related discipline (information technologies / electronics / communications / other relevant field) holding the highest expert level of certification with a minimum of 7 years of professional experience.
6. Two (2) Database specialists, with at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) and a minimum of 7 years of experience for each specialist. Experience in the solutions with database system, workflow systems, application server and business intelligence. Professional experience in implementing or support of information systems and technology for public sector organizations is required.
7. One (1) certified specialist with professional level for service oriented architecture - at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) with a minimum of 7 years of experience. Prior experience of working with enterprise systems and infrastructure. Experience in the systems and technology for public sector organizations is required.
8. One (1) certified specialists certified (MCPD) or Java developers holding a certification from Microsoft or Oracle or IBM or SQL with a minimum of 7 years of experience. Experience in software and database development, complex enterprise software systems implementation, extensive knowledge in informatics management and current technology trends.
9. One (1) networking specialist in order to support the project team if required - at least a Bachelor degree in an ICT related discipline (information technologies / other relevant field) with a minimum of 7 years of experience. Prior experience of working with enterprise systems and infrastructure and conversant on a range of technical issues relevant to the assignment, including servers, networks and communications, software and database development, web services and messaging protocols.
10. One (1) Change Management and Communication specialist - at least Bachelor degree in information technology, informatics management or related area within the public sector, or relevant discipline, with at least 7 years of experience in capacity building, change management implementation and communications.

**5.6** **Subcontractors/vendors/manufacturers**

Subcontractors/vendors/manufacturers for major items of supply or services identified in the prequalification document must meet or continue to meet the minimum criteria specified therein for each item.

Subcontractors for the following major items of supply or services must meet the following minimum criteria, herein listed for that item:

|  |  |  |
| --- | --- | --- |
| Item No. | Description of Item | Minimum Criteria to be met |
| 1 | Software | Quality: The supplied items or services must meet the established quality standards and specifications defined by the NSW. The criteria should outline functional and non-functional requirements that summarized required quality parameters, such as durability, reliability, performance, and any specific industry standards applicable.  Supplier Experience and Track Record: Suppliers should provide evidence of their relevant experience and a successful track record in delivering similar items or services. This criterion assesses the supplier's expertise, capabilities, and past performance in the relevant industry or field. |
| 2 | Hardware | Pricing: The proposed pricing should be competitive, fair, and reasonable. Suppliers should provide a clear breakdown of costs, including any applicable taxes, duties, shipping charges, and other fees. Pricing should align with the prevailing market rates and be in line with the project's budgetary constraints.  Support and Maintenance: Suppliers should outline the scope and terms of post-delivery support and maintenance services. This criterion should cover aspects such as warranty periods, technical support availability, response times, and any associated costs.  Scalability and Flexibility: The items or services should demonstrate scalability and adaptability to accommodate future expansion or changes in project requirements. This criterion ensures that the supplier's offerings can grow alongside the project's evolving needs. |

Failure to comply with this requirement will result in the rejection of the subcontractor.

**5.7 Manufacturer’s authorization**

For all powered (active) hardware and/or software components of the Information System which the Bidder does not itself produce, by submission of documentary evidence in its Bid, the Bidder must establish to the Purchaser’s satisfaction that it is not prohibited to supply those components in the Purchaser’s country under the Contract(s) that may result from this procurement.

(i) In the case of powered (active) hardware and other powered equipment, this must be documented by including Manufacturer’s Authorizations in the Bid (based on the form in Section IV);

(ii) In the case of proprietary commercial software (i.e., excluding open source or “freeware” software) that the Bidder does not manufacture itself and for which the Bidder has or will establish an Original Equipment Manufacturer (OEM) relationship with the manufacture, the Bidder must provide Manufacture’s Authorizations;

(iii) In the case of proprietary commercial software (i.e., excluding open source or “freeware” software) that the Bidder does not manufacture itself and for which the Bidder does not or will not establish an OEM relationship with the manufacture, the Bidder must document to the Purchaser’s satisfaction that the Bidder is not excluded from sourcing these items from the manufacturer’s distribution channels and offering these items for supply in the Borrower’s Country.

(iv) In the case of open-source software, the Bidder must identify the software item as open source and provide copies of the relevant open source license(s).

The Bidder is responsible for ensuring that the manufacturer or producer complies with the requirements of ITB 4 and ITB 5 and meets the minimum criteria listed above for that item.

**5.8 Local Representation**

In the case of a Bidder not doing business within the Purchaser’s country, the Bidder shall submit documentary evidence in its Bid to establish to the Purchaser’s satisfaction that it is or will be (if awarded the Contract) represented by an agent in that country who is equipped and able to carry out / manage the Bidder’s maintenance, technical support, training, and warranty repair obligations specified in the Purchaser’s Requirements (including any response time, problem-resolution norms or other aspects that may be specified in the Contract).

Bidders must have a valid partnership for supply and service delivery with a hardware vendor company and authorized for Republic of North Macedonia.

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| --- |
| Section IV - Bidding Forms |

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[Form ELI 5.1.2- Bidder’s JV Members Information Form 84](#_Toc163506160)

[Form CON – 2- Historical Contract Non-Performance, Pending Litigation and Litigation History 86](#_Toc163506161)

[Form CON – 3 88](#_Toc163506162)

[Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment Performance Declaration 88](#_Toc163506163)

[Form EXP 5.4.1- General Experience 89](#_Toc163506164)

[Form EXP – 5.4.2- Specific Experience 90](#_Toc163506165)

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[Form CCC- Summary Sheet: Current Contract Commitments / Work in Progress 92](#_Toc163506167)

[Form FIN – 5.3.1- Financial Situation: Historical Financial Performance 93](#_Toc163506168)

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[Intellectual Property Forms 107](#_Toc163506176)

[Conformance of Information System Materials 110](#_Toc163506177)

[Form of Bid Security (Bank Guarantee) 227](#_Toc163506178)

[Form of Bid Security (Bid Bond) 229](#_Toc163506179)

[Form of Bid-Securing Declaration 231](#_Toc163506180)

Letter of Bid

|  |
| --- |
| *INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT*  *The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder’s complete name and business address.*  *Note: All italicized text is to help Bidders in preparing this form.* |

Date of this Bid submission: *[insert* ***date (as day, month and year) of Bid submission****]*

RFB No.: *[insert* ***number of RFB process****]*

Alternative No.: *[insert* ***identification No if this is a Bid for an alternative,*** *otherwise state* ***“not applicable”****]*

We, the undersigned, declare that:

To: *[insert* ***complete name of Purchaser****]*

1. **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with Instructions to Bidders (ITB 8);
2. **Eligibility**: We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
3. **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Purchaser based on execution of a Bid-Securing Declaration or Proposal-Securing Declaration in the Purchaser’s Country in accordance with ITB 4.7;
4. **Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH):** [*select the appropriate option from (i) to (v) below and delete the others. In case of JV members and/or subcontractors, indicate the* *status of disqualification by the Bank of each JV member and/or subcontractor]*.

We, including any of our subcontractors:

1. [have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]
2. [are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.]
3. [had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations, and were removed from the disqualification list. An arbitral award on the disqualification case has been made in our favor.]
4. **Conformity:** We offer to provide design, supply and installation services in conformity with the bidding document of the following: [*insert a brief description of the IS Design, Supply and Installation Services*];
5. **Bid Price:** The total price of our Bid, excluding any discounts offered in item (g) below is:

**Bid Price:**

**VAT:**

**Total Bid Price:**

Total price is: *[insert* ***the total price of the Bid in words and figures****]*;

1. **Discounts:** The discounts offered and the methodology for their application are:

(i) The discounts offered are: [*Specify* ***in detail each discount offered****.*]

(ii) The exact method of calculations to determine the net price after application of discounts is shown below: [*Specify* ***in detail the method that shall be used to apply the discounts***];

1. **Bid Validity:** Our Bid shall be valid until *[insert day, month and year in accordance with ITB 19.1],* and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
2. **Performance Security:** If our Bid is accepted, we commit to obtain a Performance Security in accordance with the bidding document;
3. **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;
4. **Suspension and Debarment**: We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Purchaser’s Country laws or official regulations or pursuant to a decision of the United Nations Security Council;
5. **State-owned enterprise or institution**: [*select the appropriate option and delete the other*: ***We are not a state-owned enterprise or institution*** / ***We are a state-owned enterprise or institution but meet the requirements of ITB 4.6***];
6. **Commissions, gratuities and fees**: We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert* ***complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity****]*

|  |  |  |  |
| --- | --- | --- | --- |
| Name of Recipient | Address | Reason | Amount |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

*[If none has been paid or is to be paid, indicate “****none****.”]*

1. **Binding Contract**: We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
2. **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive; and
3. **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption.

Name of the Bidder: \**[insert* ***complete name of the Bidder****]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder: \*\**[insert* ***complete name of person duly authorized to sign the Bid****]*

Title of the person signing the Bid: *[insert* ***complete title of the person signing the Bid****]*

Signature of the person named above: *[insert* ***signature of person whose name and capacity are shown above****]*

Date signed *[insert* ***number****]* day of *[insert* ***month****]*, *[insert* ***year****]*

**\***: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\*: Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid

Price Schedule Forms

## Notes to Bidders on working with the Price Schedules

**General**

1. The Price Schedules are divided into separate Schedules as follows:

3.1 Grand Summary Cost Table

3.2 Supply and Installation Cost Summary Table

3.3 Recurrent Cost Summary Table

3.4 Supply and Installation Cost Sub-Table(s)

3.5 Recurrent Cost Sub-Tables(s)

3.6 Country of Origin Code Table

*[insert:* ***any other Schedules as appropriate****]*

2. The Schedules do not generally give a full description of the information technologies to be supplied, installed, and operationally accepted, or the Services to be performed under each item. However, it is assumed that Bidders shall have read the Technical Requirements and other sections of these bidding documents to ascertain the full scope of the requirements associated with each item prior to filling in the rates and prices. The quoted rates and prices shall be deemed to cover the full scope of these Technical Requirements, as well as overhead and profit.

3. If Bidders are unclear or uncertain as to the scope of any item, they shall seek clarification in accordance with the Instructions to Bidders in the bidding documents prior to submitting their bid.

**Pricing**

4. Prices shall be filled in indelible ink, and any alterations necessary due to errors, etc., shall be initialed by the Bidder. As specified in the Bid Data Sheet, prices shall be fixed and firm for the duration of the Contract.

5. Bid prices shall be quoted in the manner indicated and, in the currencies specified in ITB 18.1 and ITB 18.2. Prices must correspond to items of the scope and quality defined in the Technical Requirements or elsewhere in these bidding documents.

6. The Bidder must exercise great care in preparing its calculations, since there is no opportunity to correct errors once the deadline for submission of bids has passed. A single error in specifying a unit price can therefore change a Bidder’s overall total bid price substantially, make the bid noncompetitive, or subject the Bidder to possible loss. The Purchaser will correct any arithmetic error in accordance with the provisions of ITB 32.

7. Payments will be made to the Supplier in the currency or currencies indicated under each respective item. As specified in ITB 18.2, no more than three foreign currencies may be used.

3.1  Grand Summary Cost Table

|  |  | *[ insert****: Local Currency****]* ***Price*** | *[**insert****: Foreign Currency A****]* ***Price*** | *[**insert****: Foreign Currency B******]  Price*** | *[ insert****: Foreign Currency C******]  Price*** |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| 1. | Supply and Installation Costs (from Supply and Installation Cost Summary Table) |  |  |  |  |
| 2. | VAT |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| 4. | Grand Totals (to Bid Submission Form) |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Name of Bidder: |  |  |
|  |  |  |
| Authorized Signature of Bidder: |  |  |

3.2  Supply and Installation Cost Summary Table

Costs MUST reflect prices and rates quoted in accordance with ITB 17 and 18.

|  |  |  | **Supply & Installation Prices** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Locally supplied items** | **Items supplied from outside the Purchaser’s Country** | | | |
| **Line Item No.** | **Subsystem / Item** | **Supply and Installation Cost Sub-Table No.** | *[**insert****: Local Currency****]*Price | *[ insert****: Local Currency****]*Price | *[**insert****: Foreign Currency A****]*Price | *[ insert****: Foreign Currency B****]*Price | *[ insert****: Foreign Currency C****]*Price |
|  |  |  |  |  |  |  |  |
| **0** | **Inception Phase** | 0 |  |  |  |  |  |
| **1** | **Define, validate the objectives and scope** | 1 |  |  |  |  |  |
| **2** | **Specification Phase 1** | 2 |  |  |  |  |  |
| **3** | **Development** | 3 |  |  |  |  |  |
| **4.** | **Testing** | 4 |  |  |  |  |  |
| **5** | **Integration and Testing** | 5 |  |  |  |  |  |
| **6.** | **Hardware Environment Readiness** | 6 |  |  |  |  |  |
| **7.** | **Software Environment Readiness** | 7 |  |  |  |  |  |
| **8.** | **Pilot Deployment** | 8 |  |  |  |  |  |
| **9.** | **Specification Phase 2** | 9 |  |  |  |  |  |
| **10.** | **Capacity Building** | 10 |  |  |  |  |  |
| **11.** | **Test Pilot Stage SAT** | 11 |  |  |  |  |  |
| **12.** | **Rollout Hardware Environment Readiness** | 12 |  |  |  |  |  |
| **13.** | **Rollout Software Environment Readiness** | 13 |  |  |  |  |  |
| **14.** | **Rollout Deployment** | 14 |  |  |  |  |  |
| **15.** | **Rollout Stage** | 15 |  |  |  |  |  |
| SUBTOTALS | | | |  |  |  |  |
| TOTAL (To Grand Summary Table) | | | |  |  |  |  |

**Note:** - - indicates not applicable. “Indicates repetition of table entry above. Refer to the relevant Supply and Installation Cost Sub-Table for the specific components that constitute each Subsystem or line item in this summary table

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Name of Bidder: |  |  |
|  |  |  |
| Authorized Signature of Bidder: |  |  |
|  |  |  |

3.3  Recurrent Cost Summary Table

NOT APPLICABLE

Costs MUST reflect prices and rates quoted in accordance with ITB 17 and ITB 18.

| **Line Item No.** | **Subsystem / Item** | **Recurrent Cost Sub-Table No.** | *[**insert****: Local Currency****]* ***Price*** | *[**insert****: Foreign Currency A****]* ***Price*** | *[**insert****: Foreign Currency B****]* ***Price*** | *[**insert****: Foreign Currency C******] Price*** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| y | Recurrent Cost Items |  |  |  |  |  |
| y.1 | \_\_\_\_ | y.1 |  |  |  |  |
|  |  |  |  |  |  |  |
|  | Subtotals (to Grand Summary Table) | |  |  |  |  |

**Note:** Refer to the relevant Recurrent Cost Sub-Tables for the specific components that constitute the Subsystem or line item in this summary table.

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Name of Bidder: |  |  |
|  |  |  |
| Authorized Signature of Bidder: |  |  |

3.4  Supply and Installation Cost Sub-Table *[insert: identifying number]*

Line item number: *[specify:* ***relevant line item number from the Supply and Installation Cost Summary Table*** *(e.g., 1.1)]*

Prices, rates, and subtotals MUST be quoted in accordance with ITB 17 and ITB 18.

|  |  |  |  | **Unit Prices / Rates** | | | | | **Total Prices** | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | **Supplied Locally** | **Supplied from outside the Purchaser’s Country** | | | | **Supplied Locally** | **Supplied from outside the Purchaser’s Country** | | | |
| **Component  No.** | **Component Description** | **Country of Origin Code** | **Quantity** | *[**insert:* ***local currency****]* | *[ insert:* ***local currency****]* | *[**insert:* ***foreign currency A****]* | *[ insert* ***foreign currency B****]* | *[ insert:* ***foreign currency C****]* | *[ insert:* ***local currency****]* | *[ insert:* ***local currency****]* | *[ insert:* ***foreign currency A****]* | *[ insert:* ***foreign currency B****]* | *[**insert:* ***foreign currency C****]* |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **0.** | **Inception Phase** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 0.1 Project Plan |  |  |  |  |  |  |  |  |  |  |  |  |
| **1.** | **Define, validate the objectives and scope** |  | **1** |  |  |  |  |  |  |  |  |  |  |
| **2.** | **Specification Phase 1** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 2.1 High Level Architecture Models  2.2 Test Strategy  2.3 Master Test Plan  2.4 Test Design Specification  2.5 Detailed Architecture Models  2.6 Functional Specification |  |  |  |  |  |  |  |  |  |  |  |  |
| **3.** | **Development** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 3.1 NSW Trader Portal  3.2 NSW Help Desk  3.3 Registration of Traders and Competent Authority Service  3.4 LPCO Application  3.5 LPCO Management  3.6 Payment Management  3.7 Payment Processing  3.8 Notification Management  3.9 LPCO Designer  3.10 Inspection Control Results  3.11 Document Management  3.12 LPCO Workflow Management  3.13 NSW Risk Management  3.14 Referent Tables  3.15 Reporting Service  3.16 Data Converter |  |  |  |  |  |  |  |  |  |  |  |  |
| **4.** | **Testing** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 4.1 NSW Trader Portal  4.2 NSW Help Desk  4.3 Registration of Traders and Competent Authority  4.4 LPCO Application  4.5 LPCO Management  4.6 Payment Management  4.7 Payment Processing  4.8 Notification Management  4.9 LPCO Designer  4.10 Inspection Control Results  4.11 Document Management  4.12 LPCO Workflow  4.13 NSW Risk Management  4.14 Referents Tables  4.15 Reporting Service  4.16 Data Converter |  |  |  |  |  |  |  |  |  |  |  |  |
| **5.** | **Integration and Testing** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 5.1 Readiness of Environment  5.2 Acceptance Test Plan for FAT  5.3 FAT Automated Test Cases (Scripts) for Integration  5.4 FAT Test Data  5.5 FAT Report |  |  |  |  |  |  |  |  |  |  |  |  |
| **6.** | **Hardware Environment Readiness** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 6.1 Hardware Environment Readiness  6.2 Software license – Relational Database Management System   * Type 1 (Gov) 4 for Primary Site * Type 2 (Gov) for DR site |  | 4 2 |  |  |  |  |  |  |  |  |  |  |
| **7.** | **Software Environment Readiness** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 7.1 Software Environment Readiness |  |  |  |  |  |  |  |  |  |  |  |  |
| **8.** | **Pilot Deployment** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 8.1 NSW Trader Portal  8.2 NSW Help Desk  8.3 Registration of Traders and Competent Authority  8.4 LPCO Application  8.5 LPCO Management  8.6 Payment Management  8.7 Payment Processing  8.8 Notification Management  8.9 LPCO Designer  8.10 Inspection Control Results  8.11 Document Management  8.12 LPCO Workflow Management  8.13 NSW Risk Management Module  8.14 Referents Tables  8.15 Reporting Service  8.16 Data Converter |  |  |  |  |  |  |  |  |  |  |  |  |
| **9.** | **Specification Phase 2** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 9.1 NSW Trader Portal  9.2 NSW Help Desk  9.3 Registration of Traders and Competent Authority  9.4 LPCO Application  9.5 LPCO Management  9.6 Payment Management  9.7 Payment Processing  9.8 Notification Management  9.9 LPCO Designer  9.10 Inspection Control Results  9.11 Document Management  9.12 LPCO Workflow Management  9.13 NSW Risk Management Module  9.14 Referents Tables  9.15 Reporting Service  9.16 Data Converter |  |  |  |  |  |  |  |  |  |  |  |  |
| **10.** | **Capacity Building** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 10.1 Training Needs Assessment  10.2 Trainings and Workshops |  |  |  |  |  |  |  |  |  |  |  |  |
| **11.** | **Test Pilot Stage SAT** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 11.1 Readiness of Environment  11.2 Acceptance Test Plan for SAT  11.3 SAT Automated Test Cases (Scripts) for Integration  11.4 SAT Test Data  11.5 SAT Report |  |  |  |  |  |  |  |  |  |  |  |  |
| **12.** | **Rollout Hardware Environment Readiness** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 12.1 Rollout Hardware Environment Readiness |  |  |  |  |  |  |  |  |  |  |  |  |
| **13.** | **Rollout Software Environment Readiness** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 13.1 Rollout Software Environment Readiness |  |  |  |  |  |  |  |  |  |  |  |  |
| **14.** | **Rollout Deployment** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 14.1 NSW Trader Portal  14.2 NSW Help Desk  14.3 Registration of Traders and Competent Authority  14.4 LPCO Application  14.5 LPCO Management  14.6 Payment Management  14.7 Payment Processing  14.8 Notification Management  14.9 LPCO Designer  14.10 Inspection Control Results  14.11 Document Management  14.12 LPCO Workflow Management  14.13 NSW Risk Management Module  14.14 Referents Tables  14.15 Reporting Service  14.16 Data Converter |  |  |  |  |  |  |  |  |  |  |  |  |
| **15.** | **Rollout Stage** |  | **1** |  |  |  |  |  |  |  |  |  |  |
|  | 15.1 NSW Trader Portal  15.2 NSW Help Desk  15.3 Registration of Traders and Competent Authority  15.4 LPCO Application  15.5 LPCO Management  15.6 Payment Management  15.7 Payment Processing  15.8 Notification Management  15.9 LPCO Designer  15.10 Inspection Control Results  15.11 Document Management  15.12 LPCO Workflow Management  15.13 NSW Risk Management Module  15.14 Referents Tables  15.15 Reporting Service  15.16 Data Converter |  |  |  |  |  |  |  |  |  |  |  |  |
| Subtotals (to *[ insert:* ***line item***] of Supply and Installation Cost Summary Table) | | | | | | | | |  |  |  |  |  |

**Note:** - - indicates not applicable.

|  |  |  |
| --- | --- | --- |
|  |  |  |
| Name of Bidder: |  |  |
|  |  |  |
| Authorized Signature of Bidder: |  |  |

3.5 Recurrent Cost Sub-Table *[insert: identifying number] -- Warranty Period*

NOT APPLICABLE

Lot number: [if a multi-lot procurement, insert: lot number, otherwise state “single lot procurement”]

Line item number**:** *[specify:* ***relevant line item number from the Recurrent Cost Summary Table******–*** *(e.g., y.1)]*

Currency: *[specify:* ***the currency of the Recurrent Costs in which the costs expressed in this Sub-Table are expressed****]*

[As necessary for operation of the System, specify: the detailed components and quantities in the Sub-Table below for the line item specified above, modifying the sample components and sample table entries as needed. Repeat the Sub-Table as needed to cover each and every line item in the Recurrent Cost Summary Table that requires elaboration.]

Costs MUST reflect prices and rates quoted in accordance with ITB 17 and ITB 18.

|  |  | Maximum all-inclusive costs (for costs in *[ insert:* ***currency****]*) | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Component  No. | Component | Y1 | Y2 | Y3 | Y4 | ... | Yn | Sub-total for *[ insert:* ***currency****]* |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | - - |
| Cumulative Subtotal (to *[ insert:* ***currency***] entry for *[ insert:* ***line item*** *]* in the Recurrent Cost Summary Table) | | | | | | | |  |

|  |  |  |
| --- | --- | --- |
| Name of Bidder: |  |  |
|  |  |  |
| Authorized Signature of Bidder: |  |  |
|  |  |  |

3.6 Country of Origin Code Table

| Country of Origin | Country Code |  | Country of Origin | Country Code |  | Country of Origin | Country Code |
| --- | --- | --- | --- | --- | --- | --- | --- |
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Form ELI 5.1.1- Bidder Information Form

*[****Note****: The Bidder shall fill in this Form in accordance with the instructions indicated below. No alterations to its format shall be permitted and no substitutions shall be accepted.]*

Date: *[insert* ***date (as day, month and year) of Bid submission***]

RFB No.: *[insert* ***number of Bidding process****]*

Alternative No.: *[insert* ***identification No if this is a Bid for an alternative]*** *otherwise state* ***“not applicable”***

Page \_\_\_\_\_\_\_\_ of\_ \_\_\_\_\_\_ pages

|  |
| --- |
| 1. Bidder’s Name *[insert* ***Bidder’s legal name****]* |
| 2. In case of JV, legal name of each member : *[insert* ***legal name of each member in JV****]* |
| 3. Bidder’s actual or intended country of registration: *[insert* ***actual or intended country of registration****]* |
| 4. Bidder’s year of registration: *[insert* ***Bidder’s year of registration****]* |
| 5. Bidder’s Address in country of registration: *[insert* ***Bidder’s legal address in country of registration****]* |
| 6. Bidder’s Authorized Representative Information  Name: *[insert* ***Authorized Representative’s name****]*  Address: *[insert* ***Authorized Representative’s Address****]*  Telephone/Fax numbers: *[insert* ***Authorized Representative’s telephone/fax numbers****]*  Email Address: *[insert* ***Authorized Representative’s email address****]* |
| 7. Attached are copies of original documents of *[check the box(es) of the attached original documents]*   Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.4.   In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1.   In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing:   * Legal and financial autonomy * Operation under commercial law * Establishing that the Bidder is not under the supervision of the Purchaser   8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. *[If required under BDS ITB 47.1, the successful Bidder shall provide additional information on beneficial ownership, using the Beneficial Ownership Disclosure Form.]* |

Form ELI 5.1.2- Bidder’s JV Members Information Form

*[The Bidder shall fill in this Form in accordance with the instructions indicated below. The following table shall be filled in for the Bidder and for each member of a Joint Venture].*

Date: *[insert* ***date (as day, month and year) of Bid submission***]

RFB No.: *[insert* ***number of Bidding process****]*

Alternative No.: *[insert* ***identification No if this is a Bid for an alternative,*** *otherwise state* ***“not applicable”****]*

Page \_\_\_\_\_\_\_\_ of\_ \_\_\_\_\_\_ pages

|  |
| --- |
| 1. Bidder’s Name: *[insert* ***Bidder’s legal name****]* |
| 2. Bidder’s JV Member’s name: *[insert* ***JV’s Member legal name****]* |
| 3. Bidder’s JV Member’s country of registration: *[insert* ***JV’s Member country of registration****]* |
| 4. Bidder’s JV Member’s year of registration: *[insert* ***JV’s Member year of registration****]* |
| 5. Bidder’s JV Member’s legal address in country of registration: *[insert* ***JV’s Member legal address in country of registration****]* |
| 6. Bidder’s JV Member’s authorized representative information  Name: *[insert* ***name of JV’s Member authorized representative****]*  Address: *[insert* ***address of JV’s Member authorized representative****]*  Telephone/Fax numbers: *[insert* ***telephone/fax numbers of JV’s Member authorized representative****]*  Email Address: *[insert* ***email address of JV’s Member authorized representative****]* |
| 7. Attached are copies of original documents of *[check the box(es) of the attached original documents]*   Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.4.   In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and they are not under the supervision of the Purchaser in accordance with ITB 4.6.  8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. *[If required under BDS ITB 47.1, the successful Bidder shall provide additional information on beneficial ownership for each JV member using the Beneficial Ownership Disclosure Form.]* |

Form CON – 2- Historical Contract Non-Performance, Pending Litigation and Litigation History

In case a prequalification process was conducted this form should be used only if the information submitted at the time of prequalification requires updating

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***date****]*

JV member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

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|  |  |  |  |
| --- | --- | --- | --- |
| Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria | | | |
|  Contract non-performance did not occur since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 5.2.1.   Contract(s) not performed since 1st January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 5.2.1 | | | |
| **Year** | **Non- performed portion of contract** | **Contract Identification** | **Total Contract Amount (current value, currency, exchange rate and US$ equivalent)** |
| *[insert* ***year****]* | *[insert* ***amount and percentage****]* | Contract Identification: *[indicate* ***complete contract name/ number, and any other identification****]*  Name of Employer: *[insert* ***full name****]*  Address of Employer: *[insert* ***street/city/country****]*  Reason(s) for nonperformance: *[indicate* ***main reason(s****)]* | *[insert* ***amount****]* |
| Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria | | | |
|  No pending litigation in accordance with Sub-Factor 5.2.3. | | | |
|  Pending litigation in accordance with Sub-Factor 5.2.3 as indicated below. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Year of dispute** | **Amount in dispute (currency)** | **Contract Identification** | **Total Contract Amount (currency), USD Equivalent (exchange rate)** |
| *[specify* ***year****]* | *[specify* ***amount and currency****]* | Contract Identification: *[insert* ***Contract ID****]*  Name of Employer: *[insert* ***Name of Employer****]*  Address of Employer: *[insert* ***Address of Employer****]*  Matter in dispute: *[describe* ***Matter of dispute****]*  Party who initiated the dispute: *[specify* ***Initiator of dispute****]*  Status of dispute: *[specify* ***Status of dispute****]* | *[specify* ***total contract amount and currency, USD equivalent and exchange rate****]* |
| *[specify* ***year****]* | *[specify* ***amount and currency****]* | Contract Identification: *[insert* ***Contract ID****]*  Name of Employer: *[insert* ***Name of Employer****]*  Address of Employer: *[insert* ***Address of Employer****]*  Matter in dispute: *[describe* ***Matter of dispute****]*  Party who initiated the dispute: *[specify* ***Initiator of dispute****]*  Status of dispute: *[specify* ***Status of dispute****]* | *[specify* ***total contract amount and currency, USD equivalent and exchange rate****]* |
| Litigation History in accordance with Section III, Evaluation and Qualification Criteria | | | |
|  No Litigation History in accordance with Sub-Factor 5.2.4.   Litigation History in accordance with Sub-Factor 5.2.4 as indicated below. | | | |
| **Year of award** | **Outcome as percentage of Net Worth** | **Contract Identification** | **Total Contract Amount (currency), USD Equivalent (exchange rate)** |
| *[specify* ***year****]* | *[specify* ***percentage of net worth****]* | Contract Identification: *[insert* ***Contract ID****]*  Name of Employer: *[insert* ***Name of Employer****]*  Address of Employer: *[insert* ***Address of Employer****]* | *[specify* ***total contract amount and currency, USD equivalent and exchange rate****]* |

Form CON – 3

Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment Performance Declaration

*[The following table shall be filled in by the Bidder, each member of a Joint Venture and each subcontractor proposed by the Bidder]*

Bidder’s Name: *[insert full name]*Date: *[insert day, month, year]*Joint Venture Member’s or Subcontractor’s Name: *[insert* *full name]*RFB No. and title: *[insert RFB number and title]*Page *[insert page number]* of *[insert total number]* pages

|  |
| --- |
| **SEA and/or SH Declaration**  **in accordance with Section III, Qualification Criteria, and Requirements** |
| We:   (a) have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations   (b) are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations   (c) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations, and were removed from the disqualification list. An arbitral award on the disqualification case has been made in our favor. |
| **[*If (c) above is applicable*, *attach evidence of an arbitral award reversing the findings on the issues underlying the disqualification.]*** |
|  |
|  |
|  |
|  |

Form EXP 5.4.1- General Experience

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

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| **Starting Month / Year** | **Ending Month / Year** | **Years\*** | **Contract Identification** | **Role of Bidder** |
| --- | --- | --- | --- | --- |
| *[insert* ***month / year****]* | *[insert* ***month / year****]* | *[insert* ***number of years****]* | Contract name: *[insert* ***Name of Contract*** *]*  Brief Description of the Information System performed by the Bidder: *[describe* ***Information System****]*  Name of Purchaser: *[insert* ***Name of Purchaser*** *]*  Address: *[insert* ***Address of Purchaser*** *]* | *[describe* ***role of Bidder under the contract****]* |
| *[insert* ***month / year****]* | *[insert* ***month / year****]* | *[insert* ***number of years****]* | Contract name: *[insert* ***Name of Contract*** *]*  Brief Description of the Information System performed by the Bidder: *[describe* ***Information System****]*  Name of Purchaser: *[insert* ***Name of Purchaser*** *]*  Address: *[insert* ***Address of Purchaser*** *]* | *[describe* ***role of Bidder under the contract****]* |
| *[insert* ***month / year****]* | *[insert* ***month / year****]* | *[insert* ***number of years****]* | Contract name: *[insert* ***Name of Contract*** *]*  Brief Description of the Information System performed by the Bidder: *[describe* ***Information System****]*  Name of Purchaser: *[insert* ***Name of Purchaser*** *]*  Address: *[insert* ***Address of Purchaser*** *]* | *[describe* ***role of Bidder under the contract****]* |
| *[insert* ***month / year****]* | *[insert* ***month / year****]* | *[insert* ***number of years****]* | Contract name: *[insert* ***Name of Contract*** *]*  Brief Description of the Information System performed by the Bidder: *[describe* ***Information System****]*  Name of Purchaser: *[insert* ***Name of Purchaser*** *]*  Address: *[insert* ***Address of Purchaser*** *]* | *[describe* ***role of Bidder under the contract****]* |

\*List calendar year for years with contracts with at least nine (9) months activity per year starting with the earliest year

Form EXP – 5.4.2- Specific Experience

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

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| **Similar Contract Number: \_\_\_ of \_\_\_ required.** | **Information** | | |
| --- | --- | --- | --- |
| Contract Identification | *[insert* ***Contract ID****]* | | |
| Award date  Completion date | *[insert* ***Date of******Award***  *[insert* ***Date of******Completion*** | | |
|  |  | | |
| Role in Contract |   Prime Supplier |   Management Contractor |  Subcontractor |
| Total contract amount |  | |  |
| If member in a JV or subcontractor, specify participation of total contract amount |  |  |  |
| Purchaser’s Name: | *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | | |
| Address:  Telephone/fax number:  E-mail: | *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*  *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_* | | |

Form EXP – 5.4.2 (cont.)- Specific Experience (cont.)

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

Page \_\_\_\_\_\_\_ of \_\_\_\_\_\_\_ pages

| **Similar Contract No.** *[insert* ***specific number****]* **of** *[****insert total number of contracts****]* **required** | **Information** |
| --- | --- |
| Description of the similarity in accordance with Sub-Factor 5.4.2 of Section III: |  |
| Amount | *[insert* ***contract******amount and currency and USD equivalent and exchange rate****]* |
| Geographical Scope | *[describe* ***geographic scope of the users of the information system****]* |
| Functional Scope | *[describe* ***the functionalities provided by the information system****]* |
| Methods/Technology | *[describe* ***methodologies and technologies used to implement the information system****]* |
| Key Activities | *[describe* ***the key activities of the Bidder under the contract****]* |

Form CCC- Summary Sheet: Current Contract Commitments / Work in Progress

*[Bidders and each partner to an Joint Venture bid should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.]*

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

Page \_\_\_\_\_\_\_ of \_\_\_\_\_\_\_ pages

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of contract | Purchaser, contact address/tel./fax | Value of outstanding Information System (current US$ equivalent) | Estimated completion date | Average monthly invoicing over last six months (US$ equivalent/month) |
| 1. *[insert* ***Name of Contract****]* | *[insert* ***Name of Purchaser, contact address, telephone / fax number****]* | *[insert* ***Total Outstanding Contract Value of the information system in USD equivalent and exchange rate]*** | *[insert* ***Estimated completion date****]* | *[insert* ***Average monthly invoices in USD equivalent and exchange rate]*** |
| 2. *[insert* ***Name of Contract****]* | *[insert* ***Name of Purchaser, contact address, telephone / fax number****]* | *[insert* ***Total Outstanding Contract Value of the information system in USD equivalent and exchange rate]*** | *[insert* ***Estimated completion date****]* | *[insert* ***Average monthly invoices in USD equivalent and exchange rate]*** |
| 3. *[insert* ***Name of Contract****]* | *[insert* ***Name of Purchaser, contact address, telephone / fax number****]* | *[insert* ***Total Outstanding Contract Value of the information system in USD equivalent and exchange rate]*** | *[insert* ***Estimated completion date****]* | *[insert* ***Average monthly invoices in USD equivalent and exchange rate]*** |
| ... |  |  |  |  |

Form FIN – 5.3.1- Financial Situation: Historical Financial Performance

To be completed by the Bidder and, if JV, by each member

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

Page \_\_\_\_\_\_\_ of \_\_\_\_\_\_\_ pages

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Financial information in US$ equivalent** | **Historic information for previous** *[insert* ***number****]* **years**  *(US$ equivalent in 000s)* | | | | | | |
|  | Year 1 | Year 2 | Year 3 | Year … | Year n | Avg. | Avg. Ratio |
| Information from Balance Sheet | | | | | | | |
| Total Assets (TA) |  |  |  |  |  |  |  |
| Total Liabilities (TL) |  |  |  |  |  |  |
| Net Worth (NW) |  |  |  |  |  |  |  |
| Current Assets (CA) |  |  |  |  |  |  |  |
| Current Liabilities (CL) |  |  |  |  |  |  |
| Information from Income Statement | | | | | | | |
| Total Revenue (TR) |  |  |  |  |  |  |  |
| Profits Before Taxes (PBT) |  |  |  |  |  |  |
|  | | | | | | | |

Attached are copies of financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following conditions:

1. Must reflect the financial situation of the Bidder or member to a JV, and not sister or parent companies
2. Historic financial statements must be audited by a certified accountant
3. Historic financial statements must be complete, including all notes to the financial statements
4. Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted)

Form FIN – 5.3.2- Average Annual Turnover

***[To be completed by the Bidder and, if JV, by each member]***

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

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|  |  |  |
| --- | --- | --- |
| **Annual turnover data (applicable activities only)** | | |
| Year | Amount and Currency | US$ equivalent |
| *[insert* ***year****]* | *[insert* ***amount and currency****]* | *[insert* ***amount in USD equivalent and exchange rate****]* |
| *[insert* ***year****]* | *[insert* ***amount and currency****]* | *[insert* ***amount in USD equivalent and exchange rate****]* |
| *[insert* ***year****]* | *[insert* ***amount and currency****]* | *[insert* ***amount in USD equivalent and exchange rate****]* |
| *[insert* ***year****]* | *[insert* ***amount and currency****]* | *[insert* ***amount in USD equivalent and exchange rate****]* |
| *[insert* ***year****]* | *[insert* ***amount and currency****]* | *[insert* ***amount in USD equivalent and exchange rate****]* |
| *[insert* ***year****]* | *[insert* ***amount and currency****]* | *[insert* ***amount in USD equivalent and exchange rate****]* |
| \*Average Annual Turnover | *[insert* ***amount and currency****]* | *[insert* ***amount in USD equivalent and exchange rate****]* |

\*Average annual turnover calculated as total certified payments received for work in progress or completed, divided by the number of years specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 5.3.2.

Form FIN 5.3.3- Financial Resources

*To be completed by the Bidder and, if JV, by each member*

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

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Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total cash flow demands of the subject contract or contracts as indicated in Section III, Evaluation and Qualification Criteria

|  |  |
| --- | --- |
| **Source of financing** | **Amount (US$ equivalent)** |
| 1. *[describe* ***type and source of available financing****]* | *[insert* ***amount of available financing in USD equivalent and exchange rate****]* |
| 2. *[describe* ***type and source of available financing****]* | *[insert* ***amount of available financing in USD equivalent and exchange rate****]* |
| 3. *[describe* ***type and source of available financing****]* | *[insert* ***amount of available financing in USD equivalent and exchange rate****]* |
| 4. *[describe* ***type and source of available financing****]* | *[insert* ***amount of available financing in USD equivalent and exchange rate****]* |

Personnel Capabilities- Key Personnel

*To be completed by the Bidder and, if JV, by each member*

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

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Bidders should provide the names and details of the suitably qualified Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

**Key Personnel**

|  |  |  |
| --- | --- | --- |
| 1. | Title of position: *[insert* ***Title of position / role in team****]* | |
|  | Name of candidate:*[insert* ***Name of Candidate****]* | |
|  | Duration of appointment: | [*insert* ***the whole period (start and end dates) for which this position will be engaged***] |
|  | Time commitment: for this position: | [*insert* ***the number of days/week/months/ that has been scheduled for this position***] |
|  | Expected time schedule for this position: | [*insert* ***the expected time schedule for this position (e.g. attach high level Gantt chart***] |
| 2. | Title of position: *[insert* ***Title of position / role in team****]* | |
|  | Name of candidate:*[insert* ***Name of Candidate****]* | |
|  | Duration of appointment: | [*insert* ***the whole period (start and end dates) for which this position will be engaged***] |
|  | Time commitment: for this position: | [*insert* ***the number of days/week/months/ that has been scheduled for this position***] |
|  | Expected time schedule for this position: | [*insert* ***the expected time schedule for this position (e.g. attach high level Gantt chart***] |
| 3. | Title of position: *[insert* ***Title of position / role in team****]* | |
|  | Name of candidate:*[insert* ***Name of Candidate****]* | |
|  | Duration of appointment: | [*insert* ***the whole period (start and end dates) for which this position will be engaged***] |
|  | Time commitment: for this position: | [*insert* ***the number of days/week/months/ that has been scheduled for this position***] |
|  | Expected time schedule for this position: | [*insert* ***the expected time schedule for this position (e.g. attach high level Gantt chart***] |

Candidate Summary

*To be completed by the Bidder and, if JV, by each member*

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

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|  |  |  |
| --- | --- | --- |
| Position; *[insert* ***Title of Position****]* | | Prime  Alternate |
| Candidate information | Name of candidate *[insert* ***Name of Candidate****]* | Date of birth *[insert* ***Date of Birth****]* |
|  | Professional qualifications *[describe* ***Professional qualifications****]* | |
|  |  | |
| Present employment | Name of Employer *[insert* ***Name of Present Employer****]* | |
|  | Address of Employer *[insert* ***Address of Present Employer****]* | |
|  | Telephone *[insert* ***Telephone*** *of* ***Contact****]* | Contact (manager / personnel officer) *[insert* ***Name****]* |
|  | Fax *[insert* ***fax of Contact****]* | email *[insert* ***email*** *of* ***Contact****]* |
|  | Job title of candidate *[insert* ***Job Title of Candidate****]* | Years with present Employer *[insert* ***Job Number of years****]* |

Summarize professional experience over the last twenty years, in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

|  |  |  |
| --- | --- | --- |
| From | To | Company/Project/ Position/Relevant technical and management experience |
| *[insert* ***year****]* | *[insert* ***year****]* | *[describe* ***experience relevant to the proposed Contract under the is RFB****]* |
| *[insert* ***year****]* | *[insert* ***year****]* | *[describe* ***experience relevant to the proposed Contract under the is RFB****]* |
| *[insert* ***year****]* | *[insert* ***year****]* | *[describe* ***experience relevant to the proposed Contract under the is RFB****]* |
| *[insert* ***year****]* | *[insert* ***year****]* | *[describe* ***experience relevant to the proposed Contract under the is RFB****]* |

Code of Conduct for Supplier’s Personnel Form

***Note to the Purchaser****:*

***The following minimum requirements shall not be modified****. The Purchaser may add additional requirements to address identified issues, informed by relevant environmental and social assessment.*

***Delete this Box prior to issuance of the bidding documents.***

**Note to the Bidder**:

**The minimum content of the Code of Conduct form as set out by the Purchaser shall not be substantially modified**. However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.

The Bidder shall initial and submit the Code of Conduct form as part of its bid.

**CODE OF CONDUCT FOR SUPPLIER’S PERSONNEL**

We are the Supplier, [*enter name of Supplier*]. We have signed a contract with [*enter name of Purchaser*] for [*enter description of the Information System*]. The Information System will be supplied to and installed at [*enter the Project Site/s]*. Our contract requires us to implement measures to address environmental and social risks.

This Code of Conduct identifies the behavior that we require from Supplier’s Personnel employed in the execution of the Contract at the Project Site/s.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

**REQUIRED CONDUCT**

Supplier’s Personnel employed in the execution of the Contract at the Project Site/s shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Supplier’s Personnel and any other person;
3. maintain a safe working environment including by:
   1. ensuring that workplaces, machinery, equipment and processes under each person’s control are safe and without risk to health;
   2. wearing required personal protective equipment;
   3. using appropriate measures relating to chemical, physical and biological substances and agents; and
   4. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Supplier’s or Purchaser’s Personnel;
7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation and Abuse, and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and
12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Purchaser, or who makes use of the grievance mechanism for Supplier’s Personnel or the project’s Grievance Redress Mechanism.

**RAISING CONCERNS**

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Supplier’s Social Expert with relevant experience in handling* *sexual exploitation, sexual abuse and sexual harassment cases, or if such person is not required under the Contract, another individual designated by the Supplier to handle these matters*] in writing at this address [ ] or by telephone at [ ] or in person at [ ]; or
2. Call [ ] to reach the Supplier’s hotline *(if any)* and leave a message.

The person’s identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

**CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT**

Any violation of this Code of Conduct by the Supplier’s Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

FOR SUPPLIER’s PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Supplier’s contact person(s) with relevant experience*] requesting an explanation.

Name of Supplier’s Personnel: *[insert* ***name****]*

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: (day month year): *[insert* ***date****]*

Countersignature of authorized representative of the Supplier:

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: (day month year): *[insert* ***date****]*

**ATTACHMENT 1:** Behaviors constituting SEA and behaviors constituting SH

**ATTACHMENT 1 TO THE CODE OF CONDUCT FORM**

**BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE (SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)**

The following non-exhaustive list is intended to illustrate types of prohibited behaviors.

1. **Examples of sexual exploitation and abuse** include, but are not limited to:

* A Supplier’s Personnel tells a member of the community that he/she can get them jobs related to the project site in exchange for sex.
* A Supplier’s Personnel rapes, or otherwise sexually assaults a member of the community.
* A Supplier’s Personnel denies a person access to the Project Site/s unless he/she performs a sexual favor.
* A Supplier’s Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

1. **Examples of sexual harassment** **in a work context**

* A Supplier’s Personnel comment on the appearance of another Supplier’s Personnel (either positive or negative) and sexual desirability.
* When a Supplier’s Personnel complains about comments made by another Supplier’s Personnel on his/her appearance, the other Supplier’s Personnel comment that he/she is “asking for it” because of how he/she dresses.
* Unwelcome touching of a Supplier’s Personnel or Purchaser’s Personnel by another Supplier’s Personnel.
* A Supplier’s Personnel tells another Supplier’s Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

Technical Capabilities

*[****Note****: To be completed by the Bidder and, if JV, by each member]*

Bidder’s Legal Name: *[insert* ***Bidder’s Legal Name****]*

Date: *[insert* ***Date****]*

JV Member Legal Name: *[insert* ***JV Member Legal Name****]*

RFB No.: *[insert* ***RFB number****]*

Page \_\_\_\_\_\_\_ of \_\_\_\_\_\_\_ pages

The Bidder shall provide adequate information to demonstrate clearly that it has the technical capability to meet the requirements for the Information System. The Bidder should summarize important certifications, proprietary methodologies, and/or specialized technologies that the Bidder proposes to utilize in the execution of the Contract or Contracts.

Manufacturer’s Authorization

***[Note****: This authorization should be written on the letterhead of the Manufacturer and be signed by a person with the proper authority to sign documents that are binding on the Manufacturer.]*

Invitation for Bids Title and No.: *[Purchaser insert:* ***RFB Title and Number****]*

To: *[Purchaser insert:* ***Purchaser’s Officer to receive the Manufacture’s Authorization****]*

WHEREAS *[ insert:* ***Name of Manufacturer*** *]* who are official producers of *[ insert:* ***items of supply by Manufacturer*** *]* and having production facilities at *[ insert:* ***address of Manufacturer*** *]* do hereby authorize *[ insert:* ***name of Bidder or Joint Venture*** *]* located at *[ insert:* ***address of Bidder or Joint Venture*** *]* (hereinafter, the “Bidder”) to submit a bid and subsequently negotiate and sign a Contract with you for resale of the following Products produced by us:

We hereby confirm that, in case the bidding results in a Contract between you and the Bidder, the above-listed products will come with our full standard warranty.

Name *[insert:* ***Name of Officer****]* in the capacity of *[insert:* ***Title of Officer]***

Signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Duly authorized to sign the authorization for and on behalf of: *[ insert:* ***Name of Manufacturer*** *]*

Dated this *[ insert:* ***ordinal****]* day of *[ insert:* ***month****]*, *[ insert:* ***year****]*.

*[add Corporate Seal (where appropriate)]*

Subcontractor’s Agreement

***Note****: This agreement should be written on the letterhead of the Subcontractor and be signed by a person with the proper authority to sign documents that are binding on the Subcontractor.*

Invitation for Bids Title and No.: *[Purchaser insert:* ***RFB Title and Number****]*

To: *[Purchaser insert:* ***Purchaser’s Officer to receive the Subcontractor’s Agreement]***

WHEREAS *[ insert:* ***Name of Subcontractor*** *],* having head offices at *[ insert:* ***address of Subcontractor*** *],* have been informed by *[ insert:* ***name of Bidder or Joint Venture*** *]* located at *[ insert:* ***address of Bidder or Joint Venture*** *]* (hereinafter, the “Bidder”) that it will submit a bid in which *[ insert:* ***Name of Subcontractor*** *]* will provide *[ insert:* ***items of supply or services provided by the Subcontractor*** *].*  We hereby commit to provide the above named items, in the instance that the Bidder is awarded the Contract.

Name *[insert:* ***Name of Officer****]* in the capacity of *[insert:* ***Title of Officer]***

Signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Duly authorized to sign the authorization for and on behalf of: *[insert:* ***Name of Subcontractor****]*

Dated this *[ insert:* ***ordinal****]* day of  *[ insert:* ***month****]*, *[ insert:* ***year****]*.

[add Corporate Seal (where appropriate)]

List of Proposed Subcontractors

|  |  |  |  |
| --- | --- | --- | --- |
|  | Item | Proposed Subcontractor | Place of Registration & Qualifications |
|  |  |  |  |
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Intellectual Property Forms

## Notes to Bidders on working with the Intellectual Property Forms

In accordance with ITB 11.1(j), Bidders must submit, as part of their bids, lists of all the Software included in the bid assigned to one of the following categories: (a) System, General-Purpose, or Application Software; (b) Standard or Custom Software; (c) Proprietary or Open Source. Bidders must also submit a list of all Custom Materials. These categorizations are needed to support the Intellectual Property in the GCC and SCC. The Bidder must also include the text of the software licenses for the software titles proposed.

Software List

|  | (select one per title) | | | (select one per title) | | (select one per title) | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Title | System | General-Purpose | Application | Standard | Custom | Proprietary | Open Source |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**Attachments**: Proposed Software Licenses

List of Custom Materials

|  |
| --- |
| Custom Materials |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
|  |

Conformance of Information System Materials

Format of the Technical Bid

***[The Bidders should follow instruction below for preparation of their Technical Bid]***

In accordance with ITB 16.2, the documentary evidence of conformity of the Information System to the bidding documents includes (but is not restricted to):

(a). The Bidder’s Preliminary Project Plan, including, but not restricted, to the topics specified in the BDS ITB 16.2. The Preliminary Project Plan should also state the Bidder’s assessment of the major responsibilities of the Purchaser and any other involved third parties in System supply and installation, as well as the Bidder’s proposed means for coordinating activities by each of the involved parties to avoid delays or interference.

(b). A written confirmation by the Bidder that, if awarded the Contract, it shall accept responsibility for successful integration and interoperability of all the proposed Information Technologies included in the System, as further specified in the Technical Requirements.

(c). Item-by-Item Commentary on the Technical Requirements demonstrating the substantial responsiveness of the overall design of the System and the individual Information Technologies, Goods, and Services offered to those Technical Requirements.

In demonstrating the responsiveness of its bid, the Bidder must use the Technical Responsiveness Checklist (Format). Failure to do so increases significantly the risk that the Bidder’s Technical Bid will be declared technically non-responsive. Among other things, the checklist should contain explicit cross-references to the relevant pages in supporting materials included the Bidder’s Technical Bid.

**Note**: The Technical Requirements are voiced as requirements of the *Supplier* and/or the *System*. The Bidder’s response must provide clear evidence for the evaluation team to assess the credibility of the response. A response of “yes” or “will do” is unlikely to convey the credibility of the response. The Bidder should indicate *that* – and to the greatest extent practical – *how* the Bidder would comply with the requirements if awarded the contract. Whenever the technical requirements relate to feature(s) of existing products (e.g., hardware or software), the features should be described and the relevant product literature referenced. When the technical requirements relate to professional services (e.g., analysis, configuration, integration, training, etc.) some effort should be expended to describe how they would be rendered – not just a commitment to perform the [cut-and-paste] requirement. Whenever a technical requirement is for the Supplier to provide certifications (e.g., ISO 9001), copies of these certifications must be included in the Technical Bid.

**Note**: The Manufacture’s Authorizations (and any Subcontractor Agreements) are to be included in Attachment 2 (Bidder Qualifications), in accordance with and ITB 15.

**Note**: As a matter of practice, the contract cannot be awarded to a Bidder whose Technical Bid deviates (materially) from the Technical Requirements – *on any Technical Requirement*. Such deviations include omissions (e.g., non-responses) and responses that do not meet or exceed the requirement. Extreme care must be exercised in the preparation and presentation of the responses to all the Technical Requirements.

(d). Supporting materials to underpin the Item-by-item Commentary on the Technical Requirements (e.g., product literature, white-papers, narrative descriptions of technical approaches to be employed, etc.). In the interest of timely bid evaluation and contract award, Bidders are encouraged not to overload the supporting materials with documents that do not directly address the Purchaser’s requirements.

(e). Any separate and enforceable contract(s) for Recurrent Cost items which the BDS ITB 17.2 required Bidders to bid.

**Note**: To facilitate bid evaluation and contract award, Bidders encouraged to provide electronic copies of their Technical Bid – preferably in a format that the evaluation team can extract text from to facilitate the bid clarification process and to facilitate the preparation of the Bid Evaluation Report.

Technical Responsiveness Checklist

**NOTE:** Bidder is obliged to fill in the rows:

“Bidder’s technical reasons supporting compliance” and “Bidder’s cross references to supporting information in Technical Bid” for each stated requirement. Empty rows may lead to non-responsiveness of technical bid.

| **Tech. Req. Number** | **Technical Requirement** |
| --- | --- |
| **1.2.2. General Functional Requirements** | |
| FR1 | The NSW is designed to facilitate Business-to-Government (B2G) and Government agency-to-Government agency (G2G) for international trade-related transactions. The NSW should facilitate this and coordinate communication with all the relevant agencies. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR2 | All parties should be able to use a common Trader Registration identification for all transactions. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR7 | The NSW shall have a generic capability to provide links in the NSW UI to other CBRA services offered elsewhere, to preserve the perception of a single window for trade transactions submission/lodgments. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR8 | The NSW shall serve as the primary message repository for LPCO/ reference for data content. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR9 | NSW shall be the authoritative record for all international trade messages it receives. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR10 | The NSW shall provide for a flexible set-up for the NSW system administrator to configure data-driven validation rules and decisions (e.g., where certain information must be entered into the appropriate field.). It shall facilitate the regulatory agencies to enforce data validations and generate requests for more information using notification messages distributed via NSW. The NSW will make data-driven routing decisions after the data has been validated. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR11 | The NSW shall provide for an authenticated and authorized user with the ability to query the status of a lodgment and receive a response from NSW. This may be the submitter of the lodgment, or another interested party. This user may be a person using a NSW Web UI or via messaging. NSW will enforce data access rules controlling which users have access to which lodgments. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR13 | The design of the NSW shall ensure that NSW data recipients will only receive information they are entitled and authorized to. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR14 | The NSW will cater for the NSW Operator to apply adequate security and role-based access control to allow users (where a user could be a system or a person) to perform necessary actions in NSW. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR16 | The NSW shall also cater for the transaction history access and lifecycle control. The NSW will keep records of re-submissions for all transaction types (lodgments and registrations). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR18 | A user (subject to having the appropriate permission to perform the action) can search for all his/her transactions (e.g., LPCO application and payment transaction) and, after finding the required transaction, perform one of the following actions):   * View the transaction history including being able to see previous versions of the transaction; and * Obtain the current status for each regulatory agency against that transaction. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR19 | New Data Sources: As new and modern trade and logistics platforms get developed, the NSW should be able to integrate with the platforms. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR20 | The NSW will provide for comprehensive status management requirements, receive status updates, record and track lodgment status. It will receive lodgment status updates from time to time, from the customs declaration processing system and CBRAs as well as other regulatory authorities. The NSW will record the combined view of lodgment status across all agencies. This view will be available on request (via message or the user interfaces to all authorized parties. It will also be pushed out to known notification parties. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR21 | NSW shall fully support audit of messaging e.g., originator, date/time and original message received through to destination(s), date/time and content of all outgoing messages. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR22 | The NSW shall provide for data loss protection (DLP), and implement comprehensive solution with centralized workflow capabilities, integrated policies, and customized reporting, in order to manage data loss and protect the sensitive data through a modular DLP program that offer capabilities across three main vectors: data at rest, data in motion, and data at endpoints. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR137 | The NSW System must support the CBRA with configurable workflow management for processing of each LPCO type. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR160 | Audit trail for all transactions including access to information, changes to data/information must be maintained in the system such that information can be viewed by applicant and CBRA staff. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR161 | Access to the Audit trail should be restricted to authorized CBRA personnel. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR181 | The NSW shall serve as the “single electronic entry point and a platform for person involved in import, export, transit. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR249 | The system also must be able to offer a user interface where it is possible to search and view notifications after logging in to the NSW portal. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR250 | The NSW shall cater for distribution of notifications and status updates (e.g. via messaging, API, email, SMS, web service updates to the user interfaces, and other applicable interfaces). The NSW will forward status updates and notifications received from regulatory authorities’ systems to the submitter and any other notifiable party via messaging interface. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR251 | The NSW will provide status updates, error messages or requests for information from regulatory authorities to notifiable parties via or web service updates to the respective user interfaces and/or via email. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR252 | The gateway shall ensure reliability, the messaging solution must support “store and forward” messaging and implement when required by recipients. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR253 | Communication protocols supported shall include ebMS (ebXML, Messaging Service), FTP, SMTP, API (RESTful) and other suitable protocols and act as a communication service ~~(web service)~~ client and server. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR254 | The solution must support various messaging formats, including JSON, XML and ebXML. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR255 | Logging shall be supported on both transmission and message levels. Any information within the transmission shall be logged and the log must be searchable. It shall also be possible to search and find related messages. Logging entries shall be stored for a configurable amount of time. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR256 | The gateway forwards a received message to the appropriate backend system for storage and processing. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR257 | Transforming messages from different formats is required by the gateway. The solution shall support any-to-any format transformation. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR258 | Transmission and messages shall be archived and possible to be recreated and read at a later stage. The storage should store messages for at least three years. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR400 | Any communication between customs systems (including EU CERTEX) and the NSW, the data should be transformed, using the transformation rules. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR401 | Messages received from all systems should be technically validated. If technically valid, it should be further processed. If not, generic error should be responded to that system. The error codes should be used from the MS-CERTEX Integration Guide (these are to be used for CERTEX too). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

|  |  |
| --- | --- |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.2.3.1.5. *Publish the Applicable Procedures, Documents, Fees and Charges*** | |
| FR589 | The system must be able to register and process and store information it has received. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR590 | The system must be able to process the details of the information, store the data, compare with existing fields and update the separate data elements. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR514 | The system must be able to limit the time frame during which information is visible. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR515 | The NSW must be able to publish information about the procedures, documents, fees and charges for applications for permits and licenses and for the inspections and any updates to it. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech. Req. Number** | **Technical Requirement** |
| --- | --- |
| **1.2.3.1.7. NSW Portal Functional Requirements** | |
| FR23 | NSW shall provide for an internet-based Web Portal for access to the NSW services for all categories of users that are to be registered on NSW. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR24 | Specific system functions and tools will be accessed utilizing three respective User inter-faces as follows:   1. Registered trade users shall be able to use the trader’s user interface to prepare and submit all necessary applications for (LPCOs) and also prepare and submit supporting documents, view their processing status and receive notifications of issue as well as to access payment and other in-formation services; 2. CBRA user interface will support CBRA users for processing LPCOs; 3. Information Services users of the UI of the NSW system will be provided with a set of tools to view and extract relevant and authorized information on trade transactions. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR25 | The NSW Portal will be a single access points for all users of the NSW. Only registered stakeholders and their authorized staff shall be provided the authenticated and authorized access to the respective UI. Based on their registered role and functions, the users will be provided different access to the NSW features/functionalities. The system should provide functionality of multifactor authentication and possibility to integrate with the government's authentication framework (if any available). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR26 | The NSW Portal shall be segregated into three separate zones – Traders’ Zone, CBRA Zone and Information Zone. Each of the zones must be supported by above-mentioned user interfaces (UI), accessed by authorized users, perform specific functions related to their roles. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR28 | All these features shall allow NSW to be available and accessible anywhere, anytime to all concerned stakeholders as required. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR29 | The Portal and Trader Zone / UI shall have a counter to track the number of visits by external stakeholders / Traders. While the Regulatory Authority Zone / UI shall be supported by a comprehensive audit trail to capture every activity performed by the concerned User, like login sessions, values changed, documents uploaded etc. User wise activity report shall be generated through the system as required. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **General Portal/UI Requirements** | |
| FR30 | The NSW Portal must display both static and dynamic content via the web and mobile browser in different form factors. The content and information to be displayed on the Portal should be managed and administered via the “NSW Portal Administration” functionality. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR31 | The portal must contain a centralized content management. Further, the NSW Portal should provide a secure access to authorized access for users into the NSW system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR32 | The Portal should be able to display content in two languages – English and Macedonian (flexibility needed with regard to character-set – roman and Cyrillic Support for UTF-8 encoding). (Support for the Macedonian and English Language and regional settings (date, time, currency and number format, and other regional and cultural conventions at national level) |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR33 | The Portal must allow the User to update his/her profile; and if he/she is the entity administrator, shall be able to manage the entity’s registered employee accounts. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR34 | The content and information to be displayed on the Portal should be managed and administered via the “NSW Portal Administration” functionality, which must contain a centralized content management. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR35 | The NSW Portal must provide a secure access to authorized users into the NSW system, with strictly controlled access and privileges based on Role Based Access Control (RBAC) mechanism defined through the “NSW Portal Administration”. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR36 | The type of content that NSW Portal shall display shall include (but not limited) to:   * Static Content and Dynamic Content – The various types of static and dynamic content / information, static web pages, animation, videos etc.; Information about the stakeholders, their roles, functions, policies and guide-lines, contacts information, etc.; * Information about Services available, criteria, applicable fees, process and compliance requirements etc.; * News and Events; * Frequently Asked Questions (FAQ) / integration with Chabot / Knowledge repository; * Key initiatives on Trade facilitation; * Photo Gallery / Video gallery; * News / Communications from CBRAs; * Site Map and navigation directions; * Information Desk / Helpdesk and other contact details; and * Quick links to external applications / sites, as applicable. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR37 | The NSW Portal must allow for regular publication reports/information/statistics for viewing, and selected download of reports and statistics. These contents can be configured to be automatically updated on the portal as defined by the authorized content publisher in the Portal “Content Management” functionality. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR38 | On the UI, the NSW Portal shall cater for configurable and customizable dashboard. The UI should allow the User personalization features to configure the dashboard display for his purposes. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR39 | The following key features are required to be implemented for the personal dashboard facility:   * Summary of all activities, service requests, status etc. as first landing page; * Quick Links – Links within the application as well as external links to access any application functionality or website other than NSW; * Pending or Outstanding Activities/Tasks List – arranged sequentially, based on type of tasks. The standard sequence of completing the tasks should be on First-in-First-out (FIFO) basis, with override feature; * Completed Activities / Tasks – All the completed activities / tasks should be dis-played to the concerned user, in case the user wants to refer to it in future; * To display MIS reports retrieved from the NSW MIS functionality; and * Escalations/ Red Flags – Related to any notifications, alerts etc. as per pre-defined logic or escalation matrix. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR40 | The NSW Portal must provide an audit trail function should capture any such input in the system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR41 | The NSW Portal must provide three separate UI functional sets - Trader UI, Government Agency UI and Information Services UI. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Trader UI Requirements** | |
| FR42 | The Trade user must be able to log in and access the homepage of the Trader UI, which shall display a menu of functions applicable to the user, alert of any new notification messages and status of applications. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR43 | The UI shall display the lodgment screens of the other NSW functionality – LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR44 | The User must use the UI to access into the NSW services – for application of LPCOs and to upload required particulars and scanned/ digital copies/ images of supporting documents (as attachments) to facilitate paperless processing. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR45 | The UI must provide lodgment status updates, approvals, rejections, and tracking information on transactions conducted in the NSW. This includes a feature to view historical transactions. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR46 | The UI must provide alerts and messaging notification service to the User for all messages / communication issued by the Customs, CBRAs and other regulatory authorities. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR47 | The UI must provide the User to access the payment facility of the NSW Payment Functionality, to conduct payment according to the payment notification/advice. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR48 | The UI must provide a calendar feature for the User to keep track of expiry date of LPCOs or any other documents or trade transactions and allow the User to set reminders in advance for renewals. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR106 | The System must establish a database of LPCO applications. For each LPCO application form, the list of Tariff codes and that can be selected by Applicant will be linked to the form. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR117 | The Applicant must be able to change or update the information submitted for an application earlier as well as the associated supporting documentation. There should be no limitations regarding adding new, updating existing or deletion of associated documentation prior to submission. The NSW System must ensure that only the originating applicant (or his authorized representative) can change/update the application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **CBRA UI Requirements** | |
| FR49 | The Customs UI must provide the functions for the Customs officers to conduct the necessary oversight pertaining to the trade transaction at the following stage:   * LPCO application, processing, and approvals. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR51 | The Customs UI must ensure that authorized Customs officers have access to data pertinent to them as assigned based on roles and workflow management configuration. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR52 | The Customs UI must provide the Customs officer, the online ‘in-tray’ to examine the submissions / lodgments in process, including all the supporting documentation attached to the lodgment by the Trader. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR53 | The Customs UI must allow communicating/enquiry facilities from the Customs and display in the Trader UI, concerning the lodgments or submissions. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR54 | The Customs UI must allow verification of the LPCO via the NSW System. e.g., to verify authenticity and validity of all required Certificates, Licenses, Permits, etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR55 | The CBRA UI provides for the staff of CBRAs to view all lodgment of the LPCOs, and to access the NSW System to process LPCO process applications. The UI shall be configurable for the respective CBRA, based on configuration of workflow and rules appropriate for the CBRA. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR58 | The CBRA UI shall have provision for personalized dashboard showing all pending, in progress and completed tasks for each User logging into the system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR59 | The NSW must allow the CBRA staff and officers to log into portal and perform validation, processing and approval / rejection of the LPCO applications. The system shall automatically provide updates on the status to the concerned stakeholders including the Trader. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR60 | The CBRA UI must provide event triggers when a Trader submits a LPCO request in the form of a message in a workflow ‘In-tray’ of an officer (or group of officers having the same role). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR62 | The CBRA UI must display all the LPCO lodgments for the CBRAs to pursue and verify. The system should send automatic alerts to concerned officials of the CBRA as required. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR63 | The UI should track the activities performed by each User in the entire process chain for escalation and reporting purposes. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Information User UI Requirements** | |
| FR64 | The Information UI must provide detailed information about the services and processes related to NSW and Customs regarding Trade i.e., both imports and exports. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR65 | The UI must provide a “Personalized Dashboard” for each User category, with information and workflow customized specifically with respect to Trade rules and regulations in the country. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR66 | The UI must provide a wizard-like functionality to assist the traders through a sequence of dialogue boxes / responses that would lead the trader to a series to well defined steps on how to avail any trade related service. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR67 | The UI must provide access to all required forms and detailed checklist of all documentary evidence or information that may be required to avail any service as required. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR68 | The UI must provide updated information about the CBRAs and LPCOs along with policies and procedures highlighting changes if any, that may require changes in the required process or data requirements. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR69 | The UI should also provide a knowledge base and help manual with key word search capability to allow users to refer to any specific information about services or processes as required. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR70 | All the related information, and step wise key steps should be dynamically updated as and when the services or processes or related requirements are amended by respective stakeholders. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR71 | The UI should provide an audit trail/history of all changes in any specific service/process related to trade facilitation in the country. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

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| **Tech. Req. Number** | **Technical Requirement** | | |
| **1.2.4.3. Administration** | | | |
| FR460 | The system must support the concept of distributed administration. With distributed administration means, an administrator has the authority to only manage users that belongs to a specific organization, CBRAs etc.  The system shall support the following principles:   * The main administrator can authorize administrator privileges to sub-administrator of users belonging to a specific organization. * A sub-administrator can be authorized to manage users in one organization. | | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | **Technical Requirement** | |
| **1.2.4.4. Register Economic Operator** | | | |
| FR5 | | The NSW Operator/ administrator should be able to add a new CBRA to use NSW services and extend services similar to those of other agencies. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR6 | | Adding a new regulatory authority (and associated system interfaces), should be straightforward at the NSW side, involving mainly configuration and data, not programming. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR72 | | The system must provide for migration of existing registration from CDEPS and EXIM. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR73 | | The system must allow for amendments, updates, renewal and cancellation of the registration. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR74 | | The system must provide a step-by-step guide for the potential users to complete the registration. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR75 | | The system must allow a user (trader, CBRA, information user) to complete the registration formalities without having to visit a government office. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR76 | | The system must provide the registrant to attach supporting documents in various formats (doc, pdf, jpeg, etc.) as required for registration under the respective category. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR77 | | The system must carry out simple validation, e.g., missing attachment for mandatory supporting document. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR78 | | The system must validate the necessary data for different data fields as defined. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR79 | | The system must not allow the registrant to proceed to the next step if the validation rules fail, with a display of appropriate error messages. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR81 | | The NSW system must cater for configurable data validation via validation rules form. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR82 | | The NSW System Administrator can add and update validation rules to the grid, column, row, or cell. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR83 | | When rules are processed, the affected fields can change the color of cells, and provide validation messages to users during data entry, and can change the promotional path for approval. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR84 | | NSW must save validation rules with the versioning controls. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR85 | | The NSW must have interfaces with other ICT systems of Government Agencies for data validation (e.g., other customs systems, Business Identification Number and civil identity registers). | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR86 | | NSW System must provide the NSW System Administrator to define and create access for all CBRA agencies. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR87 | | The initial set up for the Regulatory Authorities Stakeholders shall provide for migration of existing Customs/CBRA user registration from existing systems. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR88 | | In case of CBRA user registration data found in other existing systems, the Stakeholders Registration functionality shall also cater for migration from these systems. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR89 | | For each CBRA registrant, the NSW system must provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR92 | | The NSW System functionality must provide the NSW System Administrator to define and create categories of Information Services Consumers/users. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR93 | | The NSW System must provide these as new Information Services Consumers registrants to apply via an online registration. The system shall allow for amendments, updates, renewal and cancellation of the registration. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR94 | | The NSW System must provide an email/ text messages to the Information Services Consumers registrant notifying regarding their data migration in NSW along with a temporary login access for verifying and updating their details. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR95 | | For each Information Services Consumers registrant, the NSW System shall provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR96 | | The NSW system functionality must cater for above-mentioned functions required of registration of regulatory authorities’ users as similarly required for registration of Information Services consumers/users, as appropriate. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR97 | | The NSW system must cater for the NSW Operator to manage and administrate all registrants, including providing configurable rules to set, for e.g., time validity, cancellation or blocking of any registered user, person, employee, stakeholder administrator and CBRA user. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR98 | | The NSW system must support the grouping of users into named groups. A user’s group can contain either a list of users or groups or a combination of these two. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR99 | | The NSW system must support distributed administration meaning that a NSW system administrator has the authority to manage only users that belongs to a specific grouping or organization, etc. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR100 | | The principal NSW system administrator can authorize administrator privileges to sub administrators of users belonging to a specific grouping or organization. An NSW sub administrator can be authorized to manage users in more than one group or organization. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR101 | | The NSW System must provide a configurable notification service to be set up by the NSW system administrator, to provide notification message to the registrant. Upon approval, the successful stakeholder shall be provided a registration number as well as the associated QR code for each registered stakeholder, person, employee, and stakeholder administrator, for subsequent login purposes. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR102 | | For each registered user the NSW system shall provide the system administrator to define the maximum number of employees authorized as NSW users under the entity. The defined number shall be configurable by the NSW System Administrator. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR103 | | The NSW System must provide for a configurable workflow to facilitate processing of the registration by the NSW Operator, with the final approval to be provided by an appropriate competent authority. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR104 | | The NSW system must support grouping privileges into named privilege groups. A privilege group can contain either a list of privileges or privilege groups. The system must enable a user’s privileges to be expressed either as a list of individual privileges and/or as a list of privileges groups. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR175 | | The online registration is web based and will include validations of references. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR491 | | The User Administrator must be able to fill in information regarding Competent Authority. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR492 | | The system must be able to Perform Technical Validation of the Request to Check EO and/or CA Registration. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR493 | | The system must be able to send request to UMS and Commercial Register to validate EO and/or CA. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR494 | | The NSW must be able to Validate Information on EO and/or CA. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR495 | | The NSW system must be able to take decision to grant user permission. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR496 | | The system must be able to Notify EO of Check Registration Error. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR497 | | The system must be able to Grant User Permission for use of NSW. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR498 | | The system must be able to Notify EO and/or UMS for granted Permission and Credentials. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR526 | | The system must be able to export all EO and CA in order to be migrated to EORI (when the system is developed). | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| **1.2.4.5. Check Economic Operator** | | | |
| FR78 | | | The system must validate the necessary data for different data fields as defined. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR79 | | | The system must not allow the registrant to proceed to the next step if the validation rules fail, with a display of appropriate error messages. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR81 | | | The NSW system must cater for configurable data validation via validation rules form. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR82 | | | The NSW System Administrator can add and update validation rules to the grid, column, row, or cell. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR83 | | | When rules are processed, the affected fields can change the color of cells, and provide validation messages to users during data entry, and can change the promotional path for approval. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | NSW must save validation rules with the versioning controls. |
| FR85 | | | The NSW must have interfaces with other ICT systems of Government Agencies for data validation (e.g., other customs systems, Business Identification Number and civil identity registers). |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR86 | | | NSW System must provide the NSW System Administrator to define and create access for all CBRA agencies. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR87 | | | The initial set up for the Regulatory Authorities Stakeholders shall provide for migration of existing Customs/CBRA user registration from existing systems. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR88 | | | In case of CBRA user registration data found in other existing systems, the Stakeholders Registration functionality shall also cater for migration from these systems. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR89 | | | For each CBRA registrant, the NSW system must provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR92 | | | The NSW System functionality must provide the NSW System Administrator to define and create categories of Information Services Consumers/users. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR93 | | | The NSW System must provide these as new Information Services Consumers registrants to apply via an online registration. The system shall allow for amendments, updates, renewal and cancellation of the registration. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR94 | | | The NSW System must provide an email/ text messages to the Information Services Consumers registrant notifying regarding their data migration in NSW along with a temporary login access for verifying and updating their details. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR95 | | | For each Information Services Consumers registrant, the NSW System shall provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR96 | | | The NSW system functionality must cater for above-mentioned functions required of registration of regulatory authorities’ users as similarly required for registration of Information Services consumers/users, as appropriate. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR97 | | | The NSW system must cater for the NSW Operator to manage and administrate all registrants, including providing configurable rules to set, for e.g., time validity, cancellation or blocking of any registered user, person, employee, stakeholder administrator and CBRA user. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR98 | | | The NSW system must support the grouping of users into named groups. A user’s group can contain either a list of users or groups or a combination of these two. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR99 | | | The NSW system must support distributed administration meaning that a NSW system administrator has the authority to manage only users that belongs to a specific grouping or organization, etc. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR100 | | | The principal NSW system administrator can authorize administrator privileges to sub administrators of users belonging to a specific grouping or organization. An NSW sub administrator can be authorized to manage users in more than one group or organization. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR101 | | | The NSW System must provide a configurable notification service to be set up by the NSW system administrator, to provide notification message to the registrant. Upon approval, the successful stakeholder shall be provided a registration number as well as the associated QR code for each registered stakeholder, person, employee, and stakeholder administrator, for subsequent login purposes. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid | | | |
| FR102 | | | For each registered user the NSW system shall provide the system administrator to define the maximum number of employees authorized as NSW users under the entity. The defined number shall be configurable by the NSW System Administrator. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR103 | | | The NSW System must provide for a configurable workflow to facilitate processing of the registration by the NSW Operator, with the final approval to be provided by an appropriate competent authority. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR104 | | | The NSW system must support grouping privileges into named privilege groups. A privilege group can contain either a list of privileges or privilege groups. The system must enable a user’s privileges to be expressed either as a list of individual privileges and/or as a list of privileges groups. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR135 | | | The CBRA staff can check the trader information by viewing the profile of a registered user via the Registration functionality. CBRA staff can also view the related cargo information for selected application or the issued LPCO. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR156 | | | NSW Portal must provide for the NSW Operator to assign a CBRA administrator as per request from the CBRA. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR157 | | | The CBRA administrator must be able to create CBRA user access with specific roles of verifiers, supervisors, inspectors, approvers as required by the CBRA. The CBRA administrator can assign multiple roles to a user. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR175 | | | The online registration is web based and will include validations of references such as LPCO document number/code, for example country codes, currency etc. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR491 | | | The User Administrator must be able to fill in information regarding Competent Authority. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR492 | | | The system must be able to Perform Technical Validation of the Request to Check EO and/or CA Registration. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR496 | | | The system must be able to send request to UMS and EORI to validate EO and/or CA. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR494 | | | The NSW must be able to Validate Information on EO and/or CA. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR495 | | | The NSW system must be able to take decision to grant user permission. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR496 | | | The system must be able to Notify EO of Check Registration Error. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR497 | | | The system must be able to Grant User Permission for use of NSW. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR498 | | | The system must be able to Notify EO and/or UMS for granted Permission and Credentials. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |

| **Tech. Req. Number** | **Technical Requirement** |
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| **1.2.5.1. Submit Application for Issuing a Certificate** | |
| FR15 | The NSW shall provide for the NSW Operator, the configurable means to enforce control over which users can list/browse/view/edit/resubmit application and submission or lodgments - where a user could be a system or a person. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR108 | The system must support the capture and configuration of supporting documentation (scanning, crop, resize, etc.) at the time of application creation. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR110 | The System must support varied application forms and data sets for different CBRAs. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR111 | The applicant must be able to:   * Create new online LPCO applications by copying from previous applications; * Check status of LPCO applications; and * Receive and reply queries from and to the relevant CBRA in relation to applications. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR112 | The trader must be able to select type of LPCO, based on HS code, and apply using a form. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR113 | The system must be capable to handle different application forms for different LPCO and for different issuing agencies. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR114 | The Applicant (being a registered user) may submit his application via his registered employee or an agent subject to the online submission of a letter of authorization signed by the registered user. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR115 | The Applicant must be able to pay any requisite LPCO fee online including the first-time application fee or any other fee specified to be payable, via the NSW System facilitated by the Payment functionality. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR116 | The Applicant must be able to submit his retrospective application of LPCO. Under normal condition, the LPCO should be applied before the goods have arrived in the country. However, for some types of LPCO, the trader can apply for the LPCO after the goods have arrived in the country but before cargo clearance according to the practices of the concerned CBRAs. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR118 | The NSW system shall provide functionality to submit LPCO applications with associated documentation. There should be no restriction regarding the format of the supporting documentation; it shall be possible to associate text documents, films, sound recordings, pictures, etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR119 | The NSW System shall allow CBRAs to configure a list of pre-qualified prerequisite supporting document reference number (e.g., Import / Export Registration Number, etc.) to be checked by the NSW System automatically to facilitate the Applicant’s application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR120 | The System must provide functionality to view an application form with all associated documentation. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR122 | The Applicant may submit the same set of application details for application of multiple number of the same type of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR123 | The Applicant may submit the same application for different types of LPCOs. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR124 | The Applicant may submit application details for another LPCO in support of his application of the current LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR125 | The System must conduct data validation and ensure valid and completeness of application, and then route the LPCO application with supporting documents uploaded by the applicant to the CBRA’s system, which shall respond with acknowledgment of receipt message. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR127 | Upon approval, the system must compute the LPCO fees and charges (if any) and send a payment advice to the applicant, with a copy to update in the CBRA system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR138 | Based on pre-defined conditions for application approval, the NSW System must enable the CBRA workflow to assign different ranks of CBRAs to verify, process and approve the application accordingly. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR167 | The NSW must give the user the possibility to find correct and valid certificate information for given HS codes. The output shall be result page containing one or more records of certificate types. A record shall consist of following attributes:   * Name; * Validity period; and * Description. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR227 | The system must be able to compute all taxes, fees, fines, penalties, and charges based on computable parameters. It should also compute late payment fees, payable interest etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR239 | The system must provide functionality to create a payment advice that contains all necessary information to conduct a payment and produce a receipt of the actual payment. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR402 | The system must be able to perform technical validation of the application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR403 | The system must be able to check where the LPCO need to be registered. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR404 | The system must be able to Reject Application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR405 | The system must be able to notify the Economic Operator that the request for application for LPCO is rejected. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR406 | The system must be able to register, notify and share the application for LPCO and allocate unique number for application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR407 | The system must be able to send application for LPCO to Competent Authority. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR408 | The system must be able to Transform Data Using Transformation Tables. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR409 | The system must be able to notify EO of the registration of the application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR537 | The NSW system must be able to send the Application for the LPCO to ITE (TARIC) for receiving the measures for the goods for which the LPCO should be issued. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR538 | The system must be able to send Economic Operator data to EORI for checks. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR539 | The system must be able to check the list of authorized EO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR560 | The system must be able to notify Payment Service about expected payment of fees/charges. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

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| **Tech. Req. Number** | **Technical Requirement** |
| **1.2.5.2. Submit declaration/application using the integrated data set for customs and non-customs formalities** | |
| FR183 | The declaration submission functionality must serve to provide for declaration with integrated set of data and transmit the completed declaration to the Customs declaration processing system that shall continue with declaration processing function. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR474 | The system must be able to receive and process integrated data set. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR475 | The system must be able to extract information which are relevant to the request for LPCO and to send it to the appropriate CBRA. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR476 | The system must be able to update the customs data set with the information about the LPCO, and to send it to the Customs system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** | |
| **1.2.6.1.5. Provide Information about the Availability and Quantity Reservation to Customs** | | |
| FR459 | The system must be able to perform validation of the request for LPCO for availability and/or quantity reservation. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR433 | The system must be able to retrieve information of LPCO. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR434 | The system must be able to identify the availability of the LPCO. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR464 | The system must be able to request (send message) to other Competent Authority License Systems, where the LPCO was issued and availability and quantity reservation will be managed in those systems. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR465 | The system must be able to send Message to SEED+ to check the LPCO Availability and Quantity reservation. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR466 | The system must be able to send Message to EU CERTEX to check the LPCO Availability and Quantity reservation. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR467 | The system must be able to identify if the request for LPCO availability and quantity reservation is for amended declaration. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR468 | The system when declaration is amended, must release the existing quantity reservation. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR469 | The NSW must be able to record the quantity for Use of LPCO. For amended declaration, new quantity is entered. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR470 | The system must be able to identify quantity from request for LPCO availability and quantity reservation, if the quantities are sufficient and a reservation can be made. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR471 | The system must be able to reserve quantity for request for LPCO availability and quantity reservation. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR472 | The system must be able to notify Customs Declaration Processing Systems (CDEPS and NCTS) for information for LPCO | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR473 | The system must be able to notify Customs Declaration Processing Systems (CDEPS and NCTS) for errors. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.2.6.1.6. Register the Use of LPCO** | |
| FR106 | The NSW System shall establish a database of LPCO applications. For each LPCO application form, the list of Tariff codes that can be selected by Applicant will be linked to the form. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR120 | The NSW System shall provide functionality to view an application form with all associated documentation. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR153 | For those LPCO that will only be issued by paper, a notification shall be issued to the Applicant upon successful application and payment. The LPCO shall be obtained at the counter of the CBRA. A QR code shall also be included in LPCO issued on paper. The requirement of the QR code is the same as that included in LPCO issued electronically. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR155 | The trader shall be able to upload LPCOs issued abroad into the NSW. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR158 | The CBRA administrator shall be able to record the following SLAs:   * Duration to process will be measured as from time when complete application has been submitted until CBRA has issued rejection or approval for application; * No. of hours or days to complete processing of inspection; * Time to complete will be measured as from time when Customs submits request to CBRA for cargo inspection and time when inspection results are entered on NSW; and * SLAs shall be entered for each LPCO for which CBRA is responsible. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR169 | Provide the user with information from the goods nomenclature so classification of the goods to import/export can be done correctly. This functionality shall be accessible through a web-based interface where the user can browse the goods nomenclature tree.  The output of this operation shall be a result page containing a tree structure of nomenclature data that reflects the relationship between codes in the goods nomenclature.  Following data shall be presented on all levels in the tree structure:   * Goods nomenclature code; and * Goods nomenclature code description. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR170 | The NSW must provide the user with classification notes so the classification of goods to import / export will be correct. This functionality shall be accessible through a web-based interface where the user can execute queries in the system. This means that not only the nomenclature but also the section, head notes and the Commentary Notes should be available in NSW.  The output shall be text with instruction how to classify the goods on different level of granularity. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR173 | Provide the user with the possibility to validate a customs declaration sub item so that all required documents, measurement units etc. are known before submitting a declaration.  The output shall be a result page containing following information:   * Fault codes indication usage of non-valid data; * List of missing document codes; and * List of missing measurement units. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR442 | The system must be able to perform technical validation on the message received for goods clearance from customs systems. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR443 | The system must be able to perform technical validation on the message received for intervention from customs systems. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR444 | The system must be able to notify customs system for technically not valid message. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR433 | The system must be able to retrieve information of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR434 | The system must be able to identify the availability of the LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR435 | The system must be able to identify the status for a given LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR449 | The system must be able to process intervention:  01-Force write-off (if the goods have been released without previous reservation (positive outcome)),  02 – Amend write-off (if the data in the declaration have been amended after the release of the goods)  03 – Delete write-off (if the declaration was invalidated after the release of the goods). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR450 | The system must be able to cancel quantity reservation for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR451 | The system must be able to write-off quantity reservation for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR452 | The system must be able to send message to EU CERTEX message for the goods clearance. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR453 | The system must be able to send message to EU CERTEX message for the intervention. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR454 | The system must be able to send message to other Competent Authorities Licensing systems message for the goods clearance. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR455 | The system must be able to send message to other Competent Authorities Licensing systems message to record the intervention. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR456 | The system must be able to send message to SEED+ message for the goods clearance. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR457 | The system must be able to send message to SEED+ message for the intervention. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR458 | The system must be able to notify the customs systems data warehouse for the outcome of the quantity management outcome for the clearance of the goods or intervention. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech. Req. Number** | | **Technical Requirement** |
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| **1.2.7.2. Process Payment Request** | | |
| FR115 | | The Applicant shall be able to pay any requisite LPCO fee online including any other fee specified to be payable, via the NSW System facilitated by the Payment functionality. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR128 | | Upon payment by the applicant, the NSW system must receive the payment confirmation from the bank via the NSW Payment functionality, and update this status to the CBRA system. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR147 | | The NSW System must provide functionality to collect, compile and send all necessary information needed to process a payment through a payment gateway. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR149 | | After successful LPCO processing, the NSW System shall prompt the applicant to pay the relevant fee for this LPCO prior to issuance. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR150 | | The applicant pays the fees and gets an acknowledgement from the NSW System. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR159 | | The CBRA must be able to indicate the following for each LPCO: amount of processing fee if applicable, amount of permit fee if applicable. In case any of these fees is to be determined on a case-by-case basis, CBRA administrator will mark this requirement and CBRA will compute fee based on specific content of LPCO application. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR226 | | The Payment functionality of NSW must be the single interface for all types of payments relating to the clearance of the consignment. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR227 | | The NSW system must be able to compute all taxes, fees, fines, penalties, and charges based on computable parameters. It should also compute late payment fees, payable interest etc, related to LPCO. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR228 | | On the Traders interface, the system must display all pending payment invoices/notices and allow the payments for each presented invoice/notice or as a lump sum amount. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR229 | | The NSW system must provide for the payer make the online payment using online banking modes. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR230 | | The NSW system must be able to connect to various interfaces, including payment gateway. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR231 | | The NSW system must have the facility to allow the trader to make periodic payments against pending payment notices/invoices. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR232 | | The NSW system must allow the trader to deposit lump sum amounts against which payment payable amounts can be debited. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR234 | | The NSW system must allow the trader view both paid and unpaid amounts. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR236 | | The NSW System must capture granular details with regard to each payable amount. Details may include which transaction the payment pertains to. The amounts collected of duties taxes, fees and charges may be maintained according to the accounting heads defined by the government. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR238 | | The NSW system must be able to carry out payment reconciliation with banks. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR239 | | The system must provide functionality to create a payment advice that contains all necessary information to conduct a payment and produce a receipt of the actual payment |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR240 | | The system must ensure that only the trader and the payee is associated to the created advice. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR584 | | The payment system must be able to register payments. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR585 | | The system must be able to store information about received payments. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR586 | | The payment system must be able to send payment details to the data store. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR587 | | The payment system must be able to receive payment details - amount and type of payment from the data store. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR588 | | The system must have the possibility to administrate the payments, matching, un-matching and refunds. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR591 | The system must be able to allow payment advice to be cancelled. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR592 | The system must be able to generate a request for refund by the CBRA’s and send the request information to the treasury. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR593 | The system should allow generation of predefined rules, based on which the payment will be automatically accepted or rejected. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR594 | The NSW payment component should be a configurable module which would have the possibility to compute the operational costs of the NSW (taking in account all customs declarations for all customs procedures) and the fees (including administrative tax) for issuing of LPCOs. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR595 | The system must be able to allow the stakeholders to have access to all of its own payment advices, and to check the status of each advice, i.e. whether it is marked as paid, unpaid, pending, exceeded, canceled or other relevant information. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR596 | The system must be able to allow possibility for exchange of files/information for payments and returns with treasury MF. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |

| **Tech. Req. Number** | **Technical Requirement** | |
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| **1.2.7.3. Check Payment Availability** | | |
| FR522 | The system must be able to register the request to check the payment availability | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR523 | The system must be able to retrieve payment information. If the payment is found, the information is retrieved, if not, means the payment is not made. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR524 | The system must be able to send notification with the payment information to the requestor. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| **Tech. Req. Number** | **Technical Requirement** | |
| **1.2.8.1. Notification Gateway** | | |
| FR561 | The system must be able to handle notifications to NSW users for relevant changes. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR562 | The system must be able to configure the notifications for users and roles. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR563 | The system must be able to send notification via mail based on the user settings. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR564 | | The system shall be able to send notifications via other channels in future. |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| **Tech. Req. Number** | **Technical Requirement** | |
| **1.2.9. NSW LPCO Designer** | | |
| FR565 | The system must be able to efficiently create, customize, and manage digital certificates forms. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR566 | The system must be able to configure notification alerts to address any anomalies or potential delays encountered during the LPCO design process. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR567 | The system must be able to incorporate custom field definitions across an array of data types, including Integer, String, Data etc. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR568 | The system must be able to have the ability to establish data exchange mechanisms with reference data interfaces from other CBRAs. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR569 | The system must be able to define and exchange data from various registers in CBRAs. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR570 | The system must be able to enable the designation of mandatory documents for upload, tailored specifically to each LPCO. | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |
| FR571 | The system shall be able to allow future changes for updates (adding or modifying) applications for LPCO (in configuration, not programing). | |
| Bidder’s technical reasons supporting compliance: | | |
| Bidder’s cross references to supporting information in Technical Bid: | | |

| **Tech.Req.Number** | **Technical Requirement** |
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| **1.2.10.1. Register Inspection Protocol Results** | |
| FR597 | The ICR must be able to receive notification generated by the Risk management component about the recommended inspection control. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR189 | The ICR must allow the Inspector manager to draft inspection schedules and notify the inspectors. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR597 | The ICR must send the notification via the mobile app and/or email. The schedule must be captured in the calendar as well. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR191 | The ICR must allow the inspectors to provide data inputs in structured form, but in detailed textual form as well, and to upload any relevant information to support their findings, including X-Ray scans, photos and documents directly through their smart phone, tablet or laptop/computer from the shed/examination yard. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR192 | There should be no restrictions regarding the format of the associated documentation provided with an inspection order or inspection report; it shall be possible to associate text documents, videos, sound recordings, picture, etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR521 | The system must be able to register the control results |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR525 | The system must be able to transmit control results to the DWH and/or other IT systems. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech.Req.Number** | **Technical Requirement** |
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| **1.2.11.1. NSW Document and Content Management Functional Requirements** | |
| FR193 | The CDWMS shall provide functionality to publish different types of content that includes eForms, documents, media and other rich web content. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR194 | The CDWMS must be capable to store both structured and unstructured documents and associate metadata to the stored document. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR195 | There should no restriction regarding the format of the document to be stored; it must be possible to store text documents, films, sound recordings, pictures, etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR196 | The CDWMS must be able to store and manage several versions of the same document and provide traceability of versions. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR197 | The CDWMS must be capable to handle multiple user requests of the same document and optimistic locking must be supported to ensure efficiency. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR198 | The CDWMS must support designing and processing of e-forms. The e-forms shall be possible to link to a workflow for processing. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR199 | It shall be possible to define a workflow for different document types enabling a pre-defined process to be executed when certain types of documents are stored, updated or deleted. A graphical user interface used when managing workflows should be provided. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR200 | It shall be possible to define rules for the execution of the workflows. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR201 | It shall be possible to perform free-text searches and searches based on metadata tags attached to the information stored in the repository. The search shall be supported using API or a user interface |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR202 | The CDWMS must support metadata (document attributes) to enable structured searches of documents. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR203 | There should be no restriction in number of, size of and types of metadata to be associated to the stored documents. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech. Req. Number** | **Technical Requirement** |
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| **1.2.12.2. Process the Application by the CBRA and Issuance of a Certificate** | |
| FR3 | NSW must allow the flexibility to add or change the  workflow and routing behavior for a transaction. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR4 | The NSW Operator / administrator must be able to change the routing behavior and workflow/events associated for particular submission/lodgment types based on business rules. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR119 | The System must allow CBRAs to configure a list of pre-qualified prerequisite supporting document reference number (e.g., Import / Export Registration Number, etc.) to be checked by the NSW System automatically to facilitate the Applicant’s application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR126 | The CBRA shall perform the processing of the LPCO application. The NSW shall receive status updates from the CBRA system and display to the trader UI. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR127 | Upon approval, the system must compute the LPCO fees and charges (if any) and send a payment advice to the applicant, with a copy to update in the CBRA system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR128 | Upon payment by the applicant, the system must receive the payment confirmation from the bank via the NSW Payment functionality and update this status to the CBRA system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR129 | When the CBRA issues the electronic LPCO with the associated UCR, and send to the NSW System, which shall notify and relay to the applicant via the Trader UI. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR131 | The CBRA staff shall receive an alert on pending LPCO application to be processed. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR132 | The system must provide functionality for the appropriate staff of the CBRA to access the LPCO processing functionality to process, reject or approve an application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR133 | CBRA staff shall be able to provide comments/rationale for rejection of LPCO application. This information shall be made available to the applicant. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR134 | When an application is approved, the system must provide the ability to archive the application so that it can be retrieved as required. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR135 | The CBRA staff can check the trader information by viewing the profile of a registered user via the Registration functionality.. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR136 | The system must include all necessary workflow to support the acceptance, review, and authorization of LPCO applications. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR138 | Based on pre-defined conditions for application approval, the system shall enable the CBRA workflow to assign different ranks of CBRAs to verify, process and approve the application accordingly. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR139 | The system must enable to transfer of applications between CBRAs, dependent upon the associated business rules. The NSW System must provide the applicant with current information regarding the process status. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR140 | The NSW system must provide functionality for one CBRA to participate in the approval process. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR141 | The system must provide functionality for viewing an approved application, an LPCO, with all associated documentation. The NSW System must ensure that only authorized users can access the documentation. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR142 | The CBRA staff must be able to approve or reject applications by validating the supporting documents and checking the content of the application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR143 | The system must provide for the CBRA staff to view and download the processing history of specified LPCO application. The sequence of actions taken by the applicant and the CBRA can be viewed and downloaded. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR145 | The system must provide the function for the CBRA to notify the Applicant of the status and result of the application. The CBRA can input the applicable terms and conditions as part of the approval. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR146 | The CBRA may view and download all outgoing correspondence related to LPCO application from the NSW System to the applicant. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR147 | The system must provide functionality to collect, compile and send all necessary information needed to process a payment through a payment gateway. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR148 | The system must provide functionality for an issuing CBRA to review an application and make comments and provide messages to the applicant. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR149 | After successful LPCO processing, the system must prompt the applicant to pay the relevant fee for this LPCO prior to issuance. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR152 | An electronic and digitally signed copy of the LPCO will be issued upon successful payment. The electronic copy of the LPCO in PDF format may be downloaded and printed by the Applicant if required. A QR code shall be included in the LPCO to allow both Applicant and Customs and border agency officers to use mobile phones, tablets and barcode scanner to scan the QR code and access the LPCO (in PDF format) stored in the LPCO functionality. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR158 | The CBRA administrator shall be able to record the following SLAs:   * Duration to process will be measured as from time when complete application has been submitted until CBRA has issued rejection or approval for application; * No. of hours or days to complete processing of inspection; * Time to complete will be measured as from time when Customs submits request to CBRA for cargo inspection and time when inspection results are entered on NSW; and * Service Level Agreements (SLAs) shall be entered for each LPCO for which CBRA is responsible. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR162 | The NSW must provide a feature where alerts can be sent to CBRA designated staff when (a) SLA for processing an application is exceeded or (b) SLA for inspection is exceeded. The NSW LPCO Portal shall enable CBRA supervisors to query performance of CBRAs in processing of LPCOs. Reports on CBRA performance of SLAs shall also be available. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR188 | The Inspection/Examination functionality shall provide CBRA user interfaces for scheduling joint examination and drawing of samples, if warranted by the RMS for goods targeted by both Customs and the CBRA. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR190 | It will also help Customs to schedule joint inspection with the concerned CBRA agreeing on a mutually agreed date/time and location, and notify relevant parties (via Traders UI, CBRA user interfaces) so that the consignment can be presented as scheduled. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR227 | The system must be able to compute all taxes, fees, fines, penalties, and charges based on computable parameters. It should also compute late payment fees, payable interest etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR239 | The system must provide functionality to create a payment advice that contains all necessary information to conduct a payment and produce a receipt of the actual payment. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR240 | The system must ensure that only the trader and the payee is associated to the created advice. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR410 | The system must be able to send the Application for the LPCO to consultation module in TARIM for receiving the appropriate measure by tariff code ITE (TARIC). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR411 | The system must be able to send Economic Operator data to EORI for checks. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR412 | The system must be able to perform business validation of the application for LPCO with verifying the data of the fields if they comply with the rules and conditions, and that all documents are available for the LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR413 | The system must be able to verify ITE measures for the application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR414 | The system must be able to validate the EORI data response for Economic Operator for application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR415 | The system must be able to notify EO of rejection of application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR416 | The system must be able to allocate Unique Number to the LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR417 | The system must be able to change status of the application for LPCO to accepted. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR418 | The system must be able to send application for LPCO to risk analysis. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR419 | The system must be able to check if additional controls are recommended from the results of the risk analysis. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR420 | The system must be able to notify EO for time and place of control. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR421 | The system must be able to send application for LPCO for controls to inspection control results. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR422 | The system must allow to the NSW Officer to accept or reject the application for LPCO (issuing LPCO). The NSW Officer, should be presented with:   * Application for LPCO * Risk Analysis Results * Measures from ITE * Control Results (if any) * Fees are paid. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR423 | The system must be able to Notify EO of Rejection of Application for LPCO. |
| FR424 | The system must be able to change the Status of the LPCO to “accepted”. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR425 | The system must be able to Issue Certificate with:   * unique LPCO number, * validity period * an official signature of the Competent Authority. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR426 | The system must be able to Notify EO of Acceptance of Application for LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR427 | The system must be able to send LPCO data to repository. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR428 | The system must be able to send the new issued LPCO to SEED+. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech. Req. Number** | **Technical Requirement** |
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| **1.2.12.3. Annulment of License, Permit, Certificate, and Other (LPCO)** | |
| FR154 | The CBRA may also initiate the action to amend or cancel an issued LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR430 | The system must be able to perform technical validation of the application for LPCO annulment. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR431 | The system must be able to record the request for annulment of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR433 | The system must be able to retrieve information of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR434 | The system must be able to identify the availability of the LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR435 | The system must be able to identify the status for a given LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR436 | The system must be able to check status of LPCO for annulment. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR437 | The system must be able to notify for rejection of request for annulment of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR438 | The Inspection Officer must be able to take decision for annulment of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR439 | The system must be able to notify of decision for rejection of annulment of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR440 | The system must be able to annul LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR441 | The system must be able to notify both EO and Customs for annulment of LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

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| **Tech. Req. Number** | **Technical Requirements** |
| **1.2.12.4. Withdrawal of Application** | |
| FR121 | The Applicant must be able to withdraw his application submitted earlier. The NSW System shall provide functionality to withdraw / cancel an application with all associated documentation prior to submission. The NSW System must ensure that only the originating applicant (or his representative) can withdraw/cancel the application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR144 | The system must provide functionality for CBRA to process any change or withdrawal requests from applicant before an application is approved. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR477 | The system must record the request of withdrawal of application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR478 | The system must identify the state before the state "Withdrawn". |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR479 | The system must identify if the state of the application has ever been "Accepted". |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR480 | The system must send a request for LPCO withdrawal to the other licensing system. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR481 | The system must perform validation of withdrawal acceptance. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR482 | The system must be able to notify the EI of rejection of withdrawal of application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR483 | The system must record data as it is registered or processed automatically. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR484 | The system must notify the applicant with an IE of acceptance of withdrawal. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

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| **Tech. Req. Number** | **Technical Requirements** |
| **1.2.12.5. Right to be Heard** | |
| FR485 | The system must notify the EO with an IE about grounds of intended decision. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR486 | The system must calculate the date upon which the time limit to express point of view expires. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR487 | The system must be able to notify EO about the extension of time limit to take decision. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR488 | The system must be able to identify if the applicant intends to further express his point of view. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR489 | The system must identify the attached documents in expressed point of view. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR490 | The system must record the results of the RTBH. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR541 | The system must be able to extend the time limit to take decision. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR542 | The system must be able to record the expiry time limit to express point of view. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

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| **Tech. Req. Number** | **Technical Requirements** |
| **1.2.12.6. Register information for the issued LPCO by other countries through SEED + or Traces NT** | |
| FR109 | The module shall be able to integrate electronically issued certificates from abroad through the SEED+ connectivity. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR429 | The system must be able to send LPCO received from SEED+ and to manage the quantity in NSW). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR529 | The system must be able to perform technical validation on information on issued LPCO from other CEFTA countries. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR530 | The system must be able to Notify SEED + of validation errors in LPCO information. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR531 | The system must be able to check the responsible authority that issued the LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR532 | The system must be able to perform business validation on information of issued LPCO in other CEFTA Countries. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR533 | The system must be able to notify SEED+ about the acceptance or non-acceptance of the LPCO. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR534 | The system must be able to send LPCO data to repository. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR535 | The system must be able to notify other CBRA about LPCO issued in CEFTA countries. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR536 | The system must be able to review the notification message received from other CBRA. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

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| **Tech. Req. Number** | **Technical Requirement** |
| **1.2.13.1. Process: Perform Risk Assessment** | |
| FR260 | The RMC must accept and validated different datasets, based on the economic operator LPCO application, through mappings for XML LPCO elements. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR261 | The risk management component must be fully configurable in order to define different types of parameters, e.g., risk indicators, criteria, profile, percentage random selection, profile owner, timeout, etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR262 | The Risk Management Component must assess ONLY LPCO Applications of the requesting agency, based on the Risk profiles, which are maintained by the same agency. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR263 | The RMC must assess LPCO applications of the requesting agency, based on the Risk profiles, which are provided by other institutions like the DG TAXUD, CEFTA, etc. and provide feedback to those institutions. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR264 | The RMC must assess other than the LPCO Application documents. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR265 | The RMC must be able to accept assessment results, provided by external systems and specify the needed actions automatically based on the scoring model. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR527 | The Solution must support storage of internal data in a database in the Solution to be used in connection with the Risk assessment process. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR274 | The RMC must provide an alert / notification system including sending e-mail alerts and SMS to inform all intervention instructions (i.e. the reason for selection) to the risk analyst reviewing the transaction; in the case where more than one risk criteria applies, all intervention instructions will be displayed. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR528 | The system should operate as hybrid, both as integrated service and an independent entity. Other Cross Border Regulatory Agencies (CBRAs) should utilize the interfaces to submit LPCO forms for Risk Assessment and retrieve corresponding results. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR276 | To support configurability, the RMC must provide an administration tool designed to facilitate the continuous updating, keeping records and defining of risk criteria, weightings, trader/import profiles and random sampling. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR281 | The RMC must provide for prohibitions and restrictions (blacklists) to be defined criteria to ensure any shipment meeting the specific parameters will be selected for inspection. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR282 | The RMC must automatically adjust the relevance of the profiles and their respective weighting based upon the performance and the parameters of that criteria application. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR284 | The user will have the option to enter the frequency including counting mechanism under which specific CBRA should be executed (example, 3% inspection rate for shipments coming from country X and containing goods under classification Y, or first 10-20 shipments with same conditions). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR285 | The RMC must recommend the control actions that must be taken based on the risk level. In addition to recommending specific control actions, the RMS will also provide instructions to be carried out during control procedures. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR286 | The Solution must ensure that Control Recommendations are derived from a combined assessment of the Agency Risk Criteria(‘s), Risk Profiles, Random Selection and Risk Models. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR287 | The RMS must provide for a configurable control treatments and options for specifying the consignments based on the risk results: green, red, yellow, blue lane etc. Colours must be defined for each level in the scoring model. Each CBRA should have options to define colour for each level based on agency policy and rules. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR289 | The RMC must allow entering the frequency and time periods under which specific control treatments and options should be executed |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR290 | The RMC must allow the Risk Rules to be designed based on variously approaches: ‘Rules based Approach’, ‘Statistical Approach’, ‘Nul Factors’ and ‘Random Approach’. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR291 | The risk rules engine will set control action required, when specific defined criteria are met. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR293 | Random selections must be automatically adjusted to match resource levels. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR294 | The RMC must allow entering the frequency and time periods under which specific control treatments and options should be executed. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR296 | The RMC must provide a random LPCO selection facility that will direct those LPCO's that would normally pass for no intervention to both documentary and physical examination channels. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR298 | RMC must provide reports for each CBRAs in according with certain criteria and requirements. |
| FR300 | The RMC must make available the intervention data e.g., findings such as misclassification, etc., to the Risk analysis and Profiling, Intelligence and Post Audit offices and any other interested parties through the Data Warehouse. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR301 | The RMC must provide a secure communication platform to support information sharing and data exchange between risk analysts, profilers, inspectors and managers within the CBRAs. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR302 | The RMC must provide reports on effectiveness of all risk objectives and treatment methods to support and maintain compliance. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR305 | A full history of risk assessment results must be maintained in the RMC. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR306 | The RMC must be able to generate different types of reports about the performance of the risk management process, including:   * The measurement of the effectiveness of risk management and mitigation activities/controls taken based on the levels of the risk of transactions; and * Measurement of the compliance of traders, declarant, origins, etc. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| FR307 | The RMC should able to calculate and enable analysis of:   * Risk management effectiveness by risk rule; * Risk profile effectiveness; * Risk profile detection simultaneously with other risk profiles; and * Measure compliance history by individual trader and by different parameters such as commodities, origin, declarant, and any other parameters. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech. Req. Number** | **Technical Requirement** | | |
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| ***1.2.13.3.* Risk profile recommendation service** | | | |
| FR516 | The RMC must be able to apply Machine Learning algorithms for the discovery of the risk patterns from unstructured text. | | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR517 | The RMC must be able to match the discovered information with the risk indicators managed in the Risk assessment functional block. | | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR518 | The RMC must provide functionality for the user manually to adapt the proposed risk profiles before registering them into the system. | | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR543 | The RMC must be able to discover risk indicators from the historical data (internal and external sources). | | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| ***1.2.13.4.* Intelligent Insight service** | | | |
| FR544 | | | The RMC must provide information about the Risk profiles hitting map (the number of hit per risk profile / risk indicator). |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR545 | | | The RMC must provide information about the rate of random selected inspections towards all inspection by agency. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR546 | | | The RMC must provide information about the rate of fraud detected during the inspections and the total number of inspections, based on the risk profile hits. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR547 | | | The RMC must provide information about the fraud detected per country, transport means, goods, company. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR548 | | | The RMC must provide mirror statistics analysis about the discrepancies of the declared import and export data. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR549 | | | The system should provide functionality for conducting statistical analysis on the current information, offering various methods and measures for data analysis |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| ***1.2.13.5.* Market surveillance service** | | | |
| FR550 | | | The system should be capable of gathering data from a wide range of online sources, including websites and online stores, to capture pricing information and related data relevant to market surveillance. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR551 | | | The service should perform price comparisons across different online platforms, identifying potential instances of price dumping by analyzing pricing trends, deviations, and historical data. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR552 | | | The system should utilize rule-based algorithms to detect price dumping practices based on predefined criteria, thresholds, and market regulations. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR553 | | | When potential instances of price dumping are detected, the service should generate real-time alerts, notifying relevant stakeholders, such as market regulators or competition authorities, about the identified irregularities. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR554 | | | The system should provide comprehensive reports and visualizations that present the findings and analysis of market surveillance activities, enabling stakeholders to interpret and act upon the information effectively. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| ***1.2.13.6. Process: Maintain Risk Profile*** | | | |
| FR500 | | | The system must allow manual entry of a risk profile: Risk profile settings should include added and setup: Risk category; Profile owner; Document Type; Risk profile schedule; White list; Rule and add score; Risk indicator that can be able conditional or required and Recommendation. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR501 | | | The system must allow a test risk profile to be created. And through the test risk profile to make a report of historical data. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR502 | | | The system must be able to automatically input data from the additional information received |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR503 | | | The RMS must provide a user-friendly interface for defining various types of parameters, including risk indicators, criteria, profiles, and other relevant factors. Users must be able to create, modify, and delete these parameters as needed. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR504 | | | The system must allow users to define risk indicators that are relevant to their specific domain or industry. These indicators could include factors such as transaction value, country of origin, product type, compliance history, weight of goods, mathematical calculations among available data or any other variables that contribute to risk assessment. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR505 | | | The RMC must enable users to configure criteria that determine the risk levels. Users should be able to set thresholds, weights, or scoring rules for each criterion |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR506 | | | The system must support the creation of risk profiles that represent different risk categories or levels. Users should be able to define the characteristics, risk thresholds, and associated actions or controls for each profile. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR507 | | | The RMC must support the obsolescence of the Risk profiles without being deleted and keeping the history for those profiles. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR508 | | | The RMC must allow search of the risk profiles based on different criteria, including tagging. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR509 | | The Solution must keep an audit trail of all data changes, such as, but not limited to:   * What data was affected? * The kind of change (creation, update or deletion) * Who applied the change? * When was the change applied? | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR510 | | The Solution must support configuration of roles and user rights to all functionality in the Solution based on a CRUD approach, i.e. one user can read Risk Profile but not update them, whereas another user can do both. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR511 | | The RMC must provide functionality to copy risk profiles and paste them, allowing changes afterwards. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR512 | | The RMC must allow generation of report about the risk profiles, whereas the similarities could be easily identified. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR513 | | The Solution must ensure that the status of the Risk profile can be changed from closed to open and vice versa. | |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| ***1.2.13.7.Process: Maintain Risk Scoring model*** | | | |
| FR269 | | | The RMC must provide for a risk-rating tool (scoring model). For each criterion, the RMS shall provide for a user definable risk rating (e.g., high, medium and low) shall be determined and a weight coefficient assigned to differentiate each profile according to the priority of each profile. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR270 | | | The RMC scoring model must provide a risk-rating algorithm / method will be applied. This score is one element within the risk assessment toolset. It can be used to rank risk criteria, profiles to assist with direct attention to areas of greatest risk. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR271 | | | The RMC must provide functionality to reassess the risk scoring model at particular time intervals and when the risk rating criteria changes. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR272 | | | The RMC risk rating must be able to assess the risk of an entity as well as the transaction pre-, post- or at the border, because these risks may be different. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR273 | | | Where the risk rating for an entity / transaction exceeds a predetermined threshold, the RMC shall generate an alert will be created automatically, identifying that entity / transaction to be of concern. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| **1.2.14. Referent Tables** | | | |
| FR572 | | | The system must be able to have module for reference tables from where the common data will be shared within other modules/services. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR573 | | | The system must have user interface to define and manage the reference tables |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR574 | | | The system must have API to provide the data from the referent tables |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| **1.2.15. Reporting Service** | | | |
| FR163 | | | The NSW must allow generation of reports to facilitate effective monitoring of performance and SLAs. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR575 | | | The system must be able to provide reporting functionality for the business, services and system. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR576 | | | The system must be able to integrate with the current environment referring to data infrastructure (data warehouse and authentication systems). |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR577 | | | The system must have option to tailor data analysis by creating customizable dashboards to present specific business and service’s needs. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR578 | | | The system shall have the drag and drop functionality for widgets, graphs and charts in order to visualize the data. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR579 | | | The system must be able to use real-time data synchronization. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR580 | | | The system must be able to transform complex data sets into actionable insights with advanced data visualization tools. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR581 | | | The system shall have possibility for cross-module analytics and should identify correlations and trends between seemingly unrelated data sets. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR582 | | | The system must employ robust encryption protocols and access controls, ensuring accessibility to authorized personnel. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR583 | | | The system must be able to produce different reports for each CBRA. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| **Tech. Req. Number** | | | **Technical Requirement** |
| **1.2.16 Help Desk** | | | |
| FR555 | | | NSW users shall be able to submit questions or issues through the NSW Portal. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR556 | | | It shall be possible to send messages and notifications to users  whenever there is any information (newsletter) regarding the NSW services or if there are any issues with the delivery of the services. Notifications shall also be sent out whenever the status of a trouble ticket is changed. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR557 | | | It shall be possible for NSW users to call the NSW Helpdesk for  assistance and questions. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR558 | | | NSW users shall also have the possibility to use online chat with  NSW Helpdesk. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |
| FR559 | | | The NSW Helpdesk shall be responsible for proactive and continuous monitoring of NSW services and the underlying ICT infrastructure. |
| Bidder’s technical reasons supporting compliance: | | | |
| Bidder’s cross references to supporting information in Technical Bid: | | | |

| **Tech. Req. Number** | **Technical Requirement** |
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| **1.3 Architectural Requirements to be met by the Information System** | |
| 1.3.1.1. | The Supplier must define baseline architecture implementation. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.2. | Target Business Architecture |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.2.1.5. | Business Requirements per stakeholder |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.3.1. | New Data Sources |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.3.2. | Reporting and Business Intelligence |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.4. | Application Architecture |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.4.1. | Interfaces between NSW and other systems |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.4.2. | User Management |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.4.4. | EUCDM 5 to EUCDM 6.2 Converter |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.5. | Technology Architecture |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.5.1. | Security Architecture |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.7. | Network and Infrastructure Architecture |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.8. | Hardware Architecture |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 1.3.8.3. | Other Architecture Information |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech. Req. Number** | **Technical Requirement** |
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| **1.4 Systems Administration and Management Functions Required to be met by the Information System** | |
| 1.4.1 | The Supplier must make sure that all components have (archiving procedures, configuration management, version control, data management, fallback procedures, problem tracking, and audit trail). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

| **Tech. Req. Number** | **Technical Requirement** |
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| **1.5.1.1 Availability of Non-Functional Requirements** | |
| NSW\_AVA\_0001 | Periodic Maintenance Downtime |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0002 | **Trade Availability Requirement** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0003 | **Hot Deployment Support** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0004 | **Minimal Manual Intervention in Recovery** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0005 | **Failure Containment** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0006 | **Application Deployment Rollback** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0007 | Downtime during Deployment |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0008 | Failure of Database |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0009 | Presentation Layer |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0010 | Asynchronous Layer |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0011 | Ability to Recover by Resubmitting Failed Request |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0012 | Failure of Asynchronous Communication Component |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0013 | Failure of HTTP Communication |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0014 | Failure of a Batch Service |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0015 | Backup and Restore Procedures |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AVA\_0016 | Availability Requirement for Office |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.2 Access Control and Connectivity Non-Functional Requirements** | |
| NSW\_ACC\_0001 | **Control of Access Rights** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0002 | **Access Authentication** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0003 | **Type of Users** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0004 | **External Access** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0005 | **Password** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0006 | **Security Checks** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0007 | **Single Authentication** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0008 | **HTTP Proxy for Outbound HTTP Requests** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0009 | **Identical Behavior** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_ACC\_0010 | **Reverse Proxies** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.3 Performance Requirements for Software** | |
| NSW\_PER\_0001 | Average Response time |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_PER\_0002 | Throughput |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.4 Audit Non-Functional Requirements** | |
| NSW\_AUD\_0001 | Audit Trail of Data Changes |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_AUD\_0002 | Audit Trail Data Exchange Storage |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.5 Data Integrity Non-Functional Requirements** | |
| NSW\_DIN\_0001 | Administrator Inspection |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_DIN\_0002 | Data Consistency |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_DIN\_0003 | Data Protection |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_DIN\_0004 | Duplicate Message Handling |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.6 Implementation Non-Functional Requirements** | |
| NSW\_IMP\_0001 | Automated Build of Delivery Package |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0002 | Automated Installation Procedure |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0003 | Delivery Package of Release |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0004 | Identification of Exact Version |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0005 | Installation Package |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0006 | Smoke Test Scenarios |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0007 | Unit Testing |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0008 | Integration on Test Environment and Automated Test Execution |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_IMP\_0009 | User Interface |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.7 Installation Non-Functional Requirements** | |
| NSW\_INS\_0001 | Continuous Integration Practice |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.8 Logging Non-Functional Requirements** | |
| NSW\_LOG\_0001 | Authentication Log |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_LOG\_0002 | Availability Period of Technical Logs |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_LOG\_0003 | Central Storage of Logs |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_LOG\_0004 | Dump Messages |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.9 Monitoring Non-Functional Requirements** | |
| NSW\_MON\_0001 | Integration with External Monitoring Component |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_MON\_0002 | Metrics |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.10 Ownership of Assets Non-Functional Requirements** | |
| NSW\_OOA\_0001 | Data Masking Strategies |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_OOA\_0002 | Data Ownership |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.11 Scalability Non-Functional Requirements** | |
| NSW\_SCA\_0001 | Maximum Size of Messages Exchanged via CCN |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_SCA\_0002 | Multiple Users |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_SCA\_0003 | Scalable Architecture |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_SCA\_0004 | Split Messages that Exceed Size |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.12 Usability Non-Functional Requirements** | |
| NSW\_USE\_0001 | Multiple Users |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_USE\_0002 | Textual Data |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_USE\_0003 | User Interface Uniformity |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **1.5.1.12 Usability Non-Functional Requirements** | |
| NSW\_USE\_0001 | Multiple Users |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_USE\_0002 | Textual Data |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| NSW\_USE\_0003 | User Interface Uniformity |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **2.1 System Analysis, Design and Customization/Development** | |
| 2.1.1 | The Supplier MUST perform the following Analysis and Design activities using a formal system analysis/development methodology with the following key activities and design deliverables |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.1.2 | The Supplier must review requirements and develop detailed technical specifications |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.1.3 | The Supplier must define the practical High Level Architecture design of NSW based on the proposed High Level Architecture in this document |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.1.4 | The Supplier must prepare the testing documentation (TEST Strategy, FAT design, Implementation of Regression Testing and Release Management) |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.1.5 | Three (3) Groups Processing Models |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **2.2 Software Customization / Development** | |
| 2.2.1 | Software Development Methodology |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.2.2 | The Supplier must design and implement of NSW components and processes |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.2.3 | The Supplier must design and develop Business Monitoring and Reporting |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.2.4 | The Supplier must design and develop Service Monitoring and Reporting |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.2.5 | The Supplier must design and develop System Monitoring and Reporting |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.2.6 | The Supplier must design and develop Alerting systems |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.2.7 | The Supplier must develop the export of the dashboards and reports in PDF and/or CSV formats |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **2.3 System Integration (to other existing systems)** | |
| 2.3.1 | The Supplier MUST perform the following Integration Services |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **2.4 Training and Training Materials** | |
| 2.4.1 | The Supplier MUST provide the following Training Services and Materials for the training that will be delivered to beneficiary agency (training program, materials for trainers, scenarios for exercises, evaluation sheets, data base of questions for knowledge tests, etc.). Trainings should include two levels of evaluations, reflection of the participants regarding training (Level 1) and knowledge tests after completing training (Level 2). |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.1 | **The Supplier must provide training to the NSW system administrators** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.2 | **The Supplier must provide training for developing Help Desk System Administrator skills** |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.3 | The Supplier must provide training for developing Digital Signing and Validation administrator skills |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.4 | The Supplier must provide training for developing payment administrator skills |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.5 | The Supplier must provide training for developing Risk Management administrator skills |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.6 | The Supplier must provide training for developing Business Monitoring and Reporting administrator skills |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.7 | The Supplier must provide training for developing Service Monitoring and Reporting administrator skills |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.8 | The Supplier must provide training for developing System Monitoring and Reporting administrator skills |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.9 | The Supplier must provide training for developing Alerting administrator skills |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.10 | The supplier must provide training for the NSW Trader Interface |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.11 | The supplier must provide training for the NSW CBRA Interface |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.12 | The supplier must provide training for the NSW Module for Border Inspection Staff |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.13 | The supplier must provide, NSW Import Data and Data Sharing Service training |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.14 | The supplier must provide training for the NSW Reporting Service |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.15 | The supplier must provide training for the NSW Risk Management |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.16 | The supplier must provide training for Preparing a Joint Inspection Plan through NSW |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.17 | The supplier must provide training for Understanding and Mapping HS Codes |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.18 | The supplier must provide training for Risk Management (RM) Awareness Training for Staff |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.19 | The supplier must provide training for Practical NSW RM Training, including Risk Profile Development |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 2.4.1.20 | The supplier must provide training for Oracle DBA Database Administration. |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **2.5 Data Conversion and Migration** | |
| 2.5.1 | The Supplier is required to provide Data Conversion and Migration Services according to the following specifications |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **2.6 Documentation Requirements** | |
| 2.6.1 | The Supplier MUST prepare and provide the following Documentation |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **3.0 General Technical Requirements** | |
| 3.0.1 | Power Supply Standard |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 3.0.2 | Environmental Standard |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 3.0.3 | Installation, Configuration and Start-up |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

Technical Responsiveness Checklist – Continue

**3.1.1.** **Minimum Hardware Requirements**

|  |  |  |
| --- | --- | --- |
| **Item No** | **Item** | **Qty** |
| 1.1 | Server Rack with equipment | 1 |
| 1.2 | Top-of-rack (ToR) switches | 2 + 1 |
| 1.3 | Network Out-of-Band Management (OOBM) switch | 2 |
| 1.4 | Database Servers – Virtualized UNIX/Linux hosts | 2 + 1 |
| 1.5 | General Compute Servers – Hypervisor hosts | 4 + 1 |
| 1.6 | Central Storage Infrastructure | 1 + 1 |
| 1.7 | Central FC SAN NVMe Infrastructure | 2 |
| 1.8 | Backup server | 1 |
| 1.9 | Backup storage | 1 |
| 1.10 | Backup software | 1 |
| 1.11 | WAN Security devices | 2 + 1 |
| 1.12 | Server Endpoint Detection and Response (EDR) system | 1 |
| 1.13 | HW and SW Installation and configuration | 1 |
| 1.14 | Software license –Relational Database Management | 4+2 |

| **Item number** | **Minimum required specifications** | **Specifications offered** |
| --- | --- | --- |
| **1.1** | **Server Rack with equipment Qty. 1**   * Rack Size: 19" * Height (Rack Units): 42U * External dimensions (WxDxH): (605 mm) x (1200 mm) x (2000 mm) * Perforated lockable front and rear doors * Quick release doors with simple lift-off design * Lockable Side Panels for easy handling and access to equipment * Adjustable leveling pads. * Rear Cable Channels for toolless mount of up to 8x 0U vertical power distribution units (PDU) rack strips, and vertical cable organizers   **Rack PDUs**   * Quantity: 2 * Vertical, Zero U * Output Connections: (36) x IEC 60320 C13, (6) x IEC 60320 C19 * Input Connections: IEC 60309 32 A 2P + E * Nominal Output Voltage: 230V * Nominal Input Voltage: 200V, 208V, 230V * Load Capacity: 7650VA * Maximum Input Current: 32A * Input frequency: 50 - 60 Hz   **Vertical Cable Organizer**   * Quantity: 2 * Zero U * 8 Cable Rings   **Blanking Panels**   * Quantity: min. 20 * 1U 19" Black Blanking Panel |  |
| **1.2** | **Top-of-rack (ToR) switches Qty. 2 + 1 (cluster for Primary site + single for DR Site)**  **Physical characteristics**   * Type: L3, Datacentre switch * Chassis type: 1U, Rack mountable, including rack mounting kit * Minimum 48x10/25GbE SFP28 downlink ports * Minimum 8x 40/100GbE uplink ports * Console access: mini-USB or RJ-45 copper ports. * Airflow: “**front-to-back**” * Power Supply: Redundant AC power supplies, hot-swappable, dual, * Power Cords: 2m (PDU 10A)   **Layer 3 networking**   * Static routing: hardware based * Routing protocols supppported: min. BGP, VRF, ISIS, VRRP * Multicast support: min. 8.000 route entries   **Performance**   * Switching capacity: min. of 3.800 Gbps * Packet buffer memory capacity: min. of 32MB * Forwarding rate: min. of 3.800 Mpps * Maximum latency: up to 1 µs * On-board drive: SSD, min 32 GB capacity   **Security features**   * FIPS 140-2 compatibility * MAC Sec support (IEEE 802.1ae)   **Cables and Transceivers (for each TOR switch)**   * 1 x 100GbE, QSFP28 to QSFP28, Passive Copper Direct Attach, 1m for Multi-Chassis Link Aggregation (MCLAG) * 2 x Transceiver, 25GbE SFP28 SR, MMF, Duplex LC * 2 x Transceiver, SFP+, 10GbE, SR, 850nm Wavelength, 300m Reach * 2 x Fibre Cable, OM4, MMF, LC/LC, 50 Meter |  |
| **1.3** | **Network Out-of-Band Management (OOBM) switch Qty. 2**  **Physical characteristics**   * Type: L3, Access switch * Chassis type: 1U, Rack mountable, including rack mounting kit * Minimum 48x RJ45 10M/100M/1G/ auto-sensing downlink ports * Minimum 4x SFP+ 10G uplink ports * Console access: mini-USB or RJ-45 copper ports. * Airflow: “**side-to-back**” * Power Supply: Redundant AC power supplies, dual, * Power Cords: 2m (PDU 10A)   **Performance**   * Switching capacity: min. Up to 175 Gbps * Forwarding rate: min. Up to 255 Mpps * Maximum latency: up to 1 µs     **Cables and Transceivers**   * 2 x SFP+ to SFP+, 10GbE, Passive Copper Twinax, Direct Attach Cable, 1 Meter (compatible with TOR switches Item No. 1.2) |  |
| **1.4** | **Database Servers – Virtualized UNIX/Linux hosts Qty. 2 + 1 (cluster for Primary site + single for DR Site)**  **Chassis and Power supply**   * Form factor/height: Rack mount, max. 2U * Chassis Configuration: NVMe Chassis, * Power supply: minimum Dual, Hot-Plug, 1850W, * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: Toolless, Sliding Rails * Ports: minimum 1 x USB-2.0, 1 x USB-3.0, 2 x Ethernet management RJ-45 ports   **Motherboard, CPU and Memory**   * Number of DDR4 DIMM slots: min. 32 * Number of memory channels per CPU: min. 8 * CPU sockets: **minimum 2 processor sockets** supported, each with a min. of 12 cores each, **with NX unit acceleration**. * CPU generation: minimum latest Generation RISC architecture processors. * CPU Clock rate**: min.** **3,9 GHz** * CPU Number of active cores per CPU: **min. 6** * CPU L3 Cache: **min. 8 MB per physical core** * CPU execution threads: **min. 8 hardware based simultaneous threads** for each physical core * Memory type: ECC DDR4, with AES based memory encryption for all data in system memory * Memory speed: min. 3200 Mbps * Memory Capacity: min. 512 GB, (8 x 64 GB)   **Storage configuration**   * PCI SAN controllers: 2 x 32 GB Dual Port Fiber Channel HBA, SW SFP * Boot disks: Boot-From-SAN configuration   **Network Interface Cards**   * PCI NIC’s: 2 x Dual Port 25 Gbe - SFP28, RoCE. * Networking Cables: 4 x SFP28 to SFP28, 25GbE, Passive Copper Twinax Direct Attach Cable, 3 Meter (compatible with TOR switches Item No. 1.2)   **Security features**   * Cryptographic algorithm acceleration, for Advanced EncryptionStandard (AES) and SHA3 * Front Bezel * Cryptographically signed firmware * Secure Boot * Trusted Boot * Single Root I/O Virtualization (SR-IOV)   **Embedded Management**   * Separate, integrated dual 1 Gb Base-T module for monitoring and management of server and its components. Support for local and remote access via Graphic Web Interface (GUI). A remote access license must be included in the offer. * Web-based GUI. * Health Monitoring through sensors. * Power control, Boot control, * Virtual Media, Virtual Folders * Virtual Console, HTML access to Virtual Console * SSH connection to OS * Email Alerting * Temperature monitoring |  |
| **1.5** | **General Compute Servers – Hypervisor hosts - Qty. 4 + 1 (cluster for Primary site + single for DR Site)**  **Chassis and Power supply**   * Form factor/height: Rack mount, max. 2U * Power supply: minimum Dual, Hot -Plug, 1100W, Titanium efficiency class * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: Toolless, Sliding Rails, with cable management arm * Ports: minimum 2 x USB-2.0, 1 x USB-3.0, 1 x VGA, 1 x USB port, minimum optional serial port   **Motherboard, CPU and Memory**   * Number of DDR5 DIMM slots: min. 32 * Number of memory channels per CPU: min. 16 * CPU sockets: minimum 2 processor sockets supported. * CPU generation: minimum latest Generation x64 architecture processors or equivalent. * CPU Required number: **2 Pcs** * CPU Clock rate**: min.** **3.5 GHz** * CPU Number of cores per processor: **min. 16** * CPU L3 Cache: **min. 45 MB** * Memory type. ECC DDR5 * Memory speed: min. 4800 MHz * Memory Capacity: min. 1024 GB, (16 x 64 GB) * Minimum memory upgrade support 8TB   **Storage configuration**   * Boot disks: Two (2) Internal M.2 SSD drives configured in RAID1, minimum capacity 480GB * PCI SAN controllers: 32 GB Dual Port Fiber Channel HBA, SW SFP   **Network Interface Cards**   * PCI NIC’s: 2 x Dual Port 25 Gbe - SFP28, RoCE. * PCI NIC’s: 1 x Dual Port 1 Gbe – RJ-45. * Networking Cables: 4 x SFP28 to SFP28, 25GbE, Passive Copper Twinax Direct Attach Cable, 3 Meter (compatible with TOR switches Item No. 1.2) * Networking Cables: 4 x OM3 LC-LC FC Cable, 10 Meter (compatible with FC switches Item No. 1.7)   **Security features**   * Trusted Platform Module 2, factory enabled with Secure Boot * LCD bezel * Cryptographically signed firmware * Secure Boot * Silicon Root of Trust * System Lockdown * Management of Data at Rest Encryption keys * Secure Erase   **Embedded Management**   * Embedded system management controller with own processing power which is FIPS 140-2 Level 1 certified * Built-in wireless module for wireless diagnostics over BLE / NFC. * The embedded controller should allow proactive for error alerts on network adapters, memory, internal drives (SAS HDDs and SSDs, NVMe), fans, power modules, RAID controllers, Fibre Channel HBAs, ambient server temperature (including graphical displays) on SSD) and other errors. * The controller should allow quality control / bandwidth of remote access to the server. * The controller should include independent 10/100/100 Mbit Ethernet adapter for real time remote management as well as a dedicated USB port for WSMAN management access at the front side. * The controller should provide agent-free hardware, firmware and performance monitoring, including inventory, crash screen / video capture, boot capture, and alerting. * The controller should support the IPMI 2.0 protocol, VNC connectivity with the operating system, include HTML 5 based browser interface, SMASH-CLP, Dynamic DNS, DHCP with Zero Touch functionality, NFS v4 and WSMan support, E-mail alerts, Virtual console (KVM) as well as virtual media attachment. * Front-facing LCD panel for local management and diagnostics. * Unlimited Virtual Console with HTML5 or VNC.   **Virtualization Hypervisor**   * Virtualization software shall provide a virtualization layer that sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability and security. * Central management interface, accessible over secure HTTP Strict Transport Security (HSTS) graphical interface. * Virtualization software shall have the capability to create Virtual machines with up to 256 virtual processors and up to 2 TB virtual RAM in virtual machines for all the guest operating system supported by the hypervisor. * Virtualization software should support live migration of virtual machines with no disruption to users or loss of service, eliminating the need to schedule application downtime for planned server maintenance. * Virtualization software should perform live migration of virtual machines files from one storage array to another without any Virtual Machine downtime. * Virtualization software should support Network File System (NFS), Gluster FS storage, Internet Small Computer System Interface (iSCSI), and Fibre Channel Protocol (FCP) type of storage. * Virtualization software shall have High Availability capabilities for the virtual machines in the sense, if in case one server fails all the Virtual machines running on that server shall be automatically restarted to another physical server running same virtualization software. * The solution should provide secure access and account management through identity federation. * The solution should support for increasing capacity by adding CPU, Memory or any other devices to virtual machines on an as needed basis without any disruption in working or downtime for supported operating systems. * Virtualization software should support automated load balancing of workload across the resources allocated to workloads in a cluster. * Virtualization software should be able to receive server health information and migrate virtual machines from degraded hosts. * Licensing should be based on per-CPU licensing model and offer need to include licenses for at least four hypervisor hosts / **8 CPU’s with unlimited physical cores on each**. * For the offered software license, it is needed to provide technical support directly from the vendor at all levels **for a period of at least 3 years**, and which provide possibility to install latest version of the solution during a support period. |  |
| **1.6** | **Central Storage Infrastructure - Qty. 1 + 1 (for Primary site + for DR Site)**  NVMe-based Unified Block and File Storage System  **Centralized Storage:**   * The storage solution shall include as a minimum end-to-end NVMe all-flash architecture storage platform with appropriate capacity for on-prem data storage. * Minimum of 72 GB direct controller based memory for cache and other functionalities shall be included for each pair of controllers (144 GB in total). * Minimum of two active controllers shall be included, expandable by at least four times. * Minimum of 32-Gbps NVMe over Fibre Channel data access protocol shall be offered, through a minimum of 4 redundant port pairs. * Minimum of 25-Gbps Ethernet data access protocol shall be offered for block and file based access to data, through a minimum of 4 redundant port pairs.   **Storage Capacity:**   * A minimum of 14 x 3.8 TB NVMe data storage drives. * A minimum of 37 TiB usable (no compression/deduplication/thin provisioning) and dual drive failure protected capacity for archive data storage. * Dedicated spare drive or spare drive capacity must be included.   **Data at-rest encryption requirements:**   * Full storage level hardware-based encryption shall be implemented, with private keys controlled by Customs. * The storage solution shall include as a minimum Advanced Encryption Standard (AES) 256-bit.   **Protocols for host access:**   * Supported block protocols: iSCSI, Fibre Channel, NVMe/FC, NVMe/TCP, vVols over NVMe/FC and TCP. * Supported file based protocols: NFS v4.1, SMB 3.1, SFTP, RSVD/SMB, NDMP v4.   **Protection in case of power outage:**  The solution must have a battery that is part of the controller, is not allowed to use a battery in the power supply of the data storage system or standalone batteries.  **Storage efficiency:**  The solution must support in-line compression and in-line deduplication for maximum capacity efficiency (post-process compression and deduplication is not allowed).  The solution must fully support the Virtual Provisioning function. Thin Provisioning functionality must be included for the entire capacity of the data storage system (without license restriction according to the cap).  The solution must support Application Consistency copies with local and remote replications. |  |
| **1.7** | **Central FC SAN NVMe Infrastructure**  **Fiber Channel NVMe SAN infrastructure – Qty. 2 (for Primary site)**  Full hardware-redundant (dual fabric) 32 Gb NVMe over Fibre Channel low latency communication networking infrastructure for block level FC SAN protocols, with no possibility for SCSI protocol interruption in case of a single element failure.  **General FC switching characteristics (per switch)**   * Full support for NVMe over Fibre Channel and Quality of Service (QoS) * Supported port types: F\_Port, E\_Port, B Port TE Port, SD\_Port, ST\_Port * ISL Trunking: up to 16 physical ports * NPV mode and N-Port ID Virtualization (NPIV)   **Performance characteristics (per switch)**   * Min. dedicated bandwidth: 32 Gb/s for every port (32 \* 32 Gbps) * Buffer credits: up to 500 buffer credits for every port, up to 8250 buffer credits for a single port in a port group   **FC SAN Chassis and Power supply**   * Form factor/height: Rack mount, max. 1U per switch * Chassis Configuration: 1U Chassis with up to 32 SFP+ FC ports, * Power supply: minimum Dual, Hot -Plug, * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: 19” Rails, * Management Interfaces: minimum 1 x serial port, 1 x RJ-45 1Gb Ethernet port, FCIP in-band management, SFTP and AES encrypted SSH v2.   **FC ports configuration (per switch)**   * 24 x 32Gb/sec short-wave SFP+ usable ports (with LC connector),   **Security features**   * FC-SP for host-to-switch and switch-to-switch authentication * In-order delivery * Port security * VSANs * Control-plane security |  |
| **1.8** | **Backup Server - Qty. 1**  **Chassis and Power supply**   * Form factor/height: Rack mount, max. 2U * Chassis Configuration: Chassis configuration options for housing up to 10 internal drives * Power supply: minimum dual, Hot -Plug, 1100W, Titanium efficiency class power supply modules * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: Toolless, Sliding Rails, with cable management arm * Ports: minimum 4 x USB, 1 x VGA, 1 x DB-9 COM port   **Motherboard, CPU and Memory**   * Number of DDR5 DIMM slots: min. 12 * Number of memory channels per CPU: min. 12 * CPU sockets: minimum 1 processor socket supported * CPU generation: minimum latest Generation x86 architecture processors or equivalent. * CPU Required number: **1 Pcs** * CPU Clock rate**: min.** **3 GHz** * CPU Number of cores per processor: **min. 16** * CPU Cache: **min. 45 MB** * Memory type. ECC DDR5 * Memory speed: min. 4800 MHz * Memory Capacity: min. 128 GB, (4 x 32 GB)   **Storage configuration**   * Internal hardware SAS/NVMe RAID controllers with min. of 2 x SSDs of min 480GB capacity (configured in RAID 1) * PCI SAN controllers: 1 x 32 GB Dual Port Fiber Channel HBA, SW SFP   **Network Interface Cards**   * PCI NIC’s: 1 x Dual Port 1 Gbe – RJ-45 * PCI NIC’s: 1 x Dual Port 25 Gbe - SFP28, RoCE. * Networking Cables: 2 x SFP28 to SFP28, 25GbE, Passive Copper Twinax Direct Attach Cable, 3 Meter (compatible with TOR switches Item No. 1.2) * Networking Cables: 2 x OM3 LC-LC FC Cable, 10 Meter (compatible with FC switches Item No. 1.7)   **Security features**   * Trusted Platform Module 2, factory enabled with Secure Boot * LCD bezel * Cryptographically signed firmware * Secure Boot * Silicon Root of Trust * System Lockdown * Management of Data at Rest Encryption keys * Secure Erase   **Embedded Management**   * Embedded system management controller with own processing power which is FIPS 140-2 Level 1 certified * Built-in wireless module for wireless diagnostics over BLE / NFC. * The embedded controller should allow proactive for error alerts on network adapters, memory, internal drives (SAS HDDs and SSDs, NVMe), fans, power modules, RAID controllers, Fibre Channel HBAs, ambient server temperature (including graphical displays) on SSD) and other errors. * The controller should allow quality control / bandwidth of remote access to the server. * The controller should include independent 10/100/100 Mbit Ethernet adapter for real time remote management as well as a dedicated USB port for WSMAN management access at the front side. * The controller should provide agent-free hardware, firmware and performance monitoring, including inventory, crash screen / video capture, boot capture, and alerting. * The controller should support the IPMI 2.0 protocol, VNC connectivity with the operating system, include HTML 5 based browser interface, SMASH-CLP, Dynamic DNS, DHCP with Zero Touch functionality, NFS v4 and WSMan support, E-mail alerts, Virtual console (KVM) as well as virtual media attachment. * Front-facing LCD panel for local management and diagnostics. * Unlimited Virtual Console with HTML5 or VNC. |  |
| **1.9** | **Backup Storage - Qty. 1**  Purpose built data backup storage with built-in data deduplication functionality.   * Up to 2U rack-mount deduplication storage device for backup data, including rails and other mounting equipment for standard cabinets. * Minimum usable capacity of 16 TB with SAS/NL-SAS disks, protected by RAID technology that enables data availability even in the event of simultaneous failure of at least two disks. * Includes at least 64 GB of global memory, a minimum of 300 GB of metadata cache memory, and a processor with at least eight cores. * Includes inline data deduplication. Deduplication should be performed also at the source of the data. * Supports deduplication of variable blocks and it shall be global. * Enables global data compression. * Supports data transfer over LAN with the following protocols: CIFS, NFS v3, NDMP, FTP.   Simultaneous data transfer over SAN/FC (Storage Area Network/Fibre Channel) and LAN must be available, allowing them to operate simultaneously.  Writes at least 4 TB/h or at least 7 TB/h with client-side deduplication.   * Minimum of 2 redundant power supplies. * Minimum of 4 x 10 GbE Ethernet LAN ports with the possibility of aggregation, usable for NAS, SFTP and SMB client access; * Minimum of 1 x Quad Port 16 Gb Fiber Channel HBA adapter for VTL connectivity and access.   Includes a separate Ethernet LAN port for remote management via HTTPS graphic console.  Includes local LED diagnostics on the front of the device.  Includes direct local management USB port on the front of the device.  All necessary cables for normal system operation should be provided at a minimum speed of 10 Gbps.  Highly available and hot-pluggable power supply modules included, sufficient for full system configuration.  Included power cables from standard PDU – C13/C14 (or equivalent). |  |
| **1.10** | **Backup software Qty. 1**   * Backup software should protect all virtual machines that reside on the Hypervisor Cluster referenced in item 1.5 (total 8 hypervisor sockets) * The offered solution must have a system for monitoring the virtual and backup environment, sending alarms and alerts to system administrators and the ability to generate reports, predefined or created by users. * Support for backup and restores of data from disk, LTO tapes and cloud. * Supported physical platforms refer to the most common underlying operating systems.   Recovery from backup:   * Recovery of full virtual machine, fast recovery only on changed data. Recovery of data’s Active Directory into email’s, Active Directory data’s and SQL tables. * Direct recovery of data from virtual or physical servers into any of powerful cloud computing platforms that offer a wide range of services to support various use cases, from hosting websites and applications to running big data analytics and machine learning workloads. * Minimum protection function of range of applications, databases, and platforms, including cloud with backup to cloud, backup in cloud storage, long term retention and cloud disaster recovery. * Minimum options for consistent data protection across virtual machines, cloud native applications and containers. * NAS backup: Backup of NAS Filers over NDMP protocols * Minimum options for quickly and easy recovery from cyber attacks. * Minimum data protection to the cloud with disaster recovery, long-term retention, and protect cloud native workloads across single or multiple cloud environments. * Deduplication and compression of backups and swap spaces * Minimum designed to support multiple hypervisors that that allow virtualization platforms used to create and manage virtual machines (VMs) on physical hardware. Provide synchronous or asynchronous replication policies. * Minimum function for monitoring, alerting and reporting. * Minimum indication of potential cyber-attacks, proactive analysis and data protection |  |
| **1.11** | **WAN Security Devices**  WAN (internet facing) Firewalls for Zero Trust Network Access Framework– Qty: 2 + 1   * Next Generation IP level protection system against external cyber-attacks for the NSW network and the system management platforms. * The solution must be fully redundant. * The solution must include machine learning (AI) malware detection functionality. * The solution must include a stream-based anti-virus scanning functionality. * The solution must include zero-day attack protection anti-virus engine, which integrates into the regular anti-virus scanning of Windows Portable Executables (PEs) of the system.   All remote access to the NSW platforms must be configured exclusively over dual stack IPv4 and IPv6 SSL VPN connectivity, with Zero Trust Network Access (ZTNA) HTTPS access proxy.  The NSW network platforms must be located in isolated network domains behind the cyber security system.  The cyber security protection system should consist of hardware and appropriate licenses including installation and configuration of the network system.  General protection system requirements:   * The solution must contain two fully independent systems configured in a cluster. * The cluster must include as a minimum a pair of highly available hardware-accelerated appliances, which do not use a standard x86 architecture. * The appliances must contain proprietary and low footprint operating system which is completely locked and secure. * The appliance’s operating system must be validated by NIST according to the FIPS 140-2 Cryptographic Module Validation Program. * The core functionalities of the cyber security products, such as the firewall and the anti-malware engine must be certified as a minimum by the ICSA Labs.   Each of the appliances must include a centralized web-based management graphical interface.  The appliances must include a sniffer, transparent (bridge) and Gateway (NAT) deployment options.  Each system must provide a full Zero Trust Network Access role-based application access for local and remote users.  The system must not include any license limit for security features such as Firewall, VPN, Anti-Virus, IPS, Application Control as well as on number of secured devices or users.  System capacity requirements:   * Standard rack-mountable devices, supporting IPv4 and IPv6.   A secure permanent and highly available connectivity between the two sites must be established, to provide for a centralized security management and monitoring functionality from both sites.  Capacity / performance requirements per each device are as following:   * Standard firewall throughput for 512-byte UDP packets: At least 25 Gbps. * The device must be capable of handling at least 3.3 Gbps of NG firewall throughput, with active IPS, application control and threat protection functionality. * Standard firewall latency for 64-byte UDP packets: less than 5 microseconds. * The device must be capable of handling at least 275.000 new TCP connections per second. * The system must be capable of handling at least 12 Gbps of IPsec VPN throughput for 512-byte packets. * The device must be capable of handling at least 2 Gbps of SSL VPN throughput. * The device must be capable of handling at least 5 Gbps of IPS throughput. * The device must be capable of handling at least 3.35 Gbps throughput with the firewall, IPS and Application Control functionalities and active logging functionality. * The device must include at least 450 GB of onboard internal SSD storage for backing up full logs. * The device must be capable of handling at least 2.950.000 concurrent TCP sessions. * The device must be capable of handling at least 2.75 Gbps of System Application Control throughput for HTTP traffic, with active Threat Protection functionality, IPS and NGFW. * The device must be capable of handling at least 1.900 Gateway-to-Gateway IPsec VPN Tunnels.   System connectivity requirements:   * The system must include at least 2 x Gigabit Ethernet RJ-45 dedicated Management ports. * The system must include at least 16 x Gigabit Ethernet RJ-45 inside (host/switch) ports. * The system must include at least 2 x 10 Gigabit Ethernet SFP+ ports. * The system must include at least 8 x Gigabit Ethernet SFP ports. * The system must include dual power supplies. * The system must include Bluetooth Low Energy (BLE) support. * The system must include at least 1 x console port. * The system must include at least 1 x USB 3.0 port.   Advanced security system requirements:   * The system must be capable of and configured for active/active clustering.   The security profiles in proxy mode must perform SSL inspection on HTTP/2 traffic that is secured by TLS 1.3 using the Application-Layer Protocol Negotiation (ALPN).  The system must allow for SSL VPN hub and spokes topologies to be configured  The system must allow for SAML user authentication for explicit web proxies and transparent web proxies.  The system’s IPS engine must handle DNS filter in flow mode, with support for botnet domain and IP filtering as well as remote category rating.  The system’s IPS engine must handle SIP inspection in a flow-based firewall policy.  The system must allow for DNS over TLS (DoT) and DNS over HTTPS (DoH) for DNS inspection.  Networking: support for DHCP, DNS, VLANs, RIP, OSPF, ISIS, BGP, Multicast, ICAP, QoS and NAT46/64.  The system must include a web proxy (transparent and Explicit) functionality for HTTP and HTTPS traffic.  The system must include Layer 3-4 object-based Firewall, including session helpers and ALGs.  The system must include all standard VPN functionalities, including IPsec, L2TP over IPsec and PPTP.  The system must include SSL VPN access with customizable web portal, bookmarks manager and single sign-on for back-end web apps.  The system must include integrated token server for dual-factor authentication, mandating MFA using 8-digit one-time password (OTP) for remote connectivity, supporting management and provisioning of at least 500 users through the integrated GUI.  The system must include a mobile device perpetual software license and functionality for generation of one-time password tokens for at least 25 users connecting remotely over VPN, as well as for local firewall authentication. This offered mobile OTP generation software must operate under the iOS, Android and Windows Phone platform mobile devices.  The system must include Intrusion Prevention System with signatures rated by category and risk.  The system must include Application Control functionality with all common applications pre-defined (like Botnet, Collaboration, Email, File Sharing, Games, Network Services, P2P, proxy services, Remote access, Social Media, Storage, Video/Audio and VoIP and others); support for special types of apps like SPDY, SSH and custom app signatures.  The system must include Anti-malware protection with IP Reputation, Antivirus for the following protocols: HTTP/HTTPS, SMTP/SMTPS, POP3/POP3S, IMAP/IMAPS, MAPI, FTP, SFTP, SMB, NNTP; Heuristics analysis, file submission and on-premise as well as cloud-based sandbox integration functionality. The included sandbox functionality must be fully compliant with the MITRE ATT&CK reporting.  The system must include web filtering, including URL based filter categories with regular expressions or wildcards pattern matching;  The system must include web content matching, video filtering based on YouTube categories or channel ID, DNS filter with DNS rating service, DNS safe search and category-based DNS domain filter.  The Intrusion Prevention system must include botnet C&C domain blocking functionality.  The system must include DLP engine with support for the HTTP-POST/GET, SMTP, POP3, IMAP, MAPI, FTP protocols.  The system must include user & device-based policies & inventory, including remote device fingerprinting and active scanning of devices on the network.  The system must include real-time updates for Web Categorization & Antispam (cloud database).  The system must include Push updates for IP Reputation, AV, IPS and Application Control.  Virtualization requirements:   * The system must include virtualization support - segregation of physical device into multiple virtual domains (minimum 10 included with no additional cost); each virtual domain must work independent from the others in Gateway/NAT or Transparent/Bridge like a virtual UTM Firewall.   The system must include functionality to reserve physical and logical resources per virtual domain.  The system must include role-based administration & multi-tenancy functionality.  The system must include the following high availability functionality: Active-Passive, Active-Active, virtual clusters), including geographically dispersed HA; The clustering functionality must provide for device failover in case of link failure, loss of power, SSD drive failure or memory utilization exceeding certain threshold.  The system must include integration with Active Directory, LDAP, TACACS+ or RADIUS; The system must include single sign-on with Active Directory and VDI users (Proxy/Firewall authentication).  All network devices should be redundant and with a redundant power supply |  |
| **1.12** | **Server Endpoint Detection and Response (EDR) system Qty. 1**  System for protecting the servers with centralized management solution, for a minimum of 30 virtual servers.  The protection system must have at least the following standard security functionalities:  Protection against malicious threats, including:   * Anti-Ransomware protection, * Next Generation Antivirus Protection, * Anti-Bot Protection, * Anti-Exploit protection, * Anti-viral protection, * Automated generation of forensic reports * Behavioral guard * Zero-phishing * Corporate credential reuse protection * Zero-Day protection founded on sandbox emulation   Protection of access control, including:   * Endpoint Firewall * Application Control   protection from access to malicious web pages and URL links   * Port Protection * Endpoint Compliance * Full disk encryption * Media Encryption * Remote Access VPN   The requested solution must have the ability to adaptively detect and block malware resulting from mutations based on their real-time behaviour.  Next Generation Antiviral Protection must be based on machine learning mechanism.  The requested solution must have an Anti-Exploit protection, with the possibility of detecting suspicious processes in memory.  The built-in under the framework Anti-Exploit must be based on at least the following technologies:   * Import – Export Address Table Parsing * Return Oriented Programming * Stack Pivoting * VB Script God Mode   The requested solution must have a zero-day malware protection based on the principle of sending files to a secure cloud sandbox for detailed verification.  The requested solution must have the possibility to automatically remove active elements of documents such as PDF JavaScript Actions, Macros, and Embedded objects in which there may be malicious content and delivery of filtered documents without waiting for the completion of sandbox file checking.  User must have the option to download the original file after completing the sand-box check  The port protection level must have the opportunity to control content exchanged through USB, WiFi, and Bluetooth ports.  The required solution must have an integrated tool for proactively detecting and removing cyber-attacks (Threat Hunting) based on compromise indicators (IoC).  The requested solution must have the compatibility to be installed on servers with at least the most common underlying versions of operating systems.  The requested solution must have the functionality to control the input/output traffic of the servers using the source/destination IP address and the gate.  A third-party solution must have an automated tool to verify the compliance of endpoint security settings with the centrally defined standards. |  |
| **1.13** | **HW Installation and configuration**   * Required hardware management IP addresses and Operating system management IP addresses must be asked in advanced and provided by the Beneficiary. * Rack, PDU and Horizontal and Vertical Cable Management installation. Connecting PDU’s to Customs power sockets provided by the Beneficiary. * Installing TOR switches and OOBM switches in rack. * Configuring switches according to the Beneficiary instructions. * Server installation in rack. Connecting LAN, and OOBM cables. * Configuring server management IP addresses. * Backup system integration and configuration. * It is the Contractor responsibility to provide LLD (Low Level Design) documentation and deliver to Beneficiary in electronic form and in hard copy.   **Server virtualization software/platform installation and configuration**   * Required IP addresses for all services for Virtualization software/platform must be asked in advanced and provided by the Beneficiary. * It is the Contractor responsibility to install and configure all required and proposed virtualization management components. * Contractor will install and configure virtualization software on servers (item 1.4 and 1.5) and create virtual machines. All configuration parameters such as allocation of virtual CPUs, RAM, virtual disk space, vNiC to each virtual machine are subject of proposed software solution design. |  |

Data Base Management System Specifications

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| --- | --- | --- |
| **1** | **Software license – Relational Database Management System Type 1 (Gov) – Quantity 4** | **Specifications offered** |
| 1.1 | A database management system must be proposed as relational database software (RDBMS - Relational Database Management System) |  |
| 1.2 | The RDBMS shall provide add, delete, edit, search, and sort options for records in the selected databases. |  |
| 1.3 | Proposed RDBMS must be fully compatible and certified by the RDBMS vendor for the operating system of the database servers, installed on the Primary location and the database servers "Database Servers – Virtualized UNIX/Linux hosts" |  |
| 1.4 | Proposed RDBMS must not limit the size of the database to be created. |  |
| 1.5 | Proposed RDBMS must support concurrent multi- user access and must not limit the number of connected users. |  |
| 1.6 | Proposed RDBMS must be 100% compatible with common Internet/intranet platforms and Internet browsers. |  |
| 1.7 | Proposed RDBMS must support Unicode character set, as well as official languages of North Macedonia and English language. |  |
| 1.8 | Proposed RDBMS must support a Web browser based console interface and remote administration utility for administration, maintenance, backup/recovery, monitoring and tuning. |  |
| 1.9 | Proposed RDBMS must have built-in support for developing stored procedures, functions, and packages (collections of procedures and functions). |  |
| 1.10 | Proposed RDBMS must have built-in support for stored procedures, functions, and packages compilation during development and before execution. |  |
| 1.11 | Proposed RDBMS must support permissions assigned to database objects based on privileges, users and roles. |  |
| 1.12 | Proposed RDBMS must provide an audit mechanism. |  |
| 1.13 | Proposed RDBMS must provide network encryption for the data sent between the client and server. |  |
| 1.14 | Proposed RDBMS must support complete and incremental backup/recovery. Backup functionality must support online operations in such way that backup of database can be done while database is up and running. |  |
| 1.15 | Proposed RDBMS must support automatic recovery in case of a transaction or system failure. |  |
| 1.16 | Proposed RDBMS must have support for alphanumeric, unstructured data, XML as well as spatial data. |  |
| 1.17 | Spatial features of RDBMS must support:  Spatial data must support different geometry types such as: points, multi-points, lines, line strings, multi-line strings, polygons, multi- polygons, surfaces, multiple surfaces, 3-D geometry, and point cloud storage.   * Spatial operators for determining geospatial measurements like area, distance, length and perimeter, as well as geospatial set operations like union, difference, and symmetric difference. * Data models such as: topology data model for working with data about nodes, edges, and faces in a topology, network data model to model and analyze link-node graphs to represent physical and logical networks used in transportation, etc. * Raster data to store, index, query, analyze, and deliver data as raster image and its associated metadata. * Graphs such as property and RDF (Resource Description Framework) graphs. |  |
| 1.18 | Proposed RDBMS must have support for Machine Learning (ML) features including but not limited to: development of ML models and ML model scoring, predictive analytics which can use ML algorithms implemented as SQL functions, and built-in integration with open-source R language. |  |
| 1.19 | Proposed RDBMS must have support for table and index partitioning by dividing them into smaller pieces. Table partitioning must support different partitioning methods such as: range partitioning, hash partitioning, list partitioning, and composite partitioning (combination of other methods). |  |
| 1.20 | Proposed RDBMS must have support for high availability in a way that it has cluster of two or more database nodes sharing data in between database nodes, and where all the nodes in a cluster are active and equally process the data. If one database node in cluster fails, traffic intended for the failed node is either passed onto an existing surviving nodes or load balanced across the remaining nodes. |  |
| 1.21 | Proposed RDBMS must be able to add new database nodes into database cluster dynamically without any downtime and without interrupting data access. |  |
| 1.22 | Proposed RDBMS must be able to remove one active database node from database cluster dynamically without any downtime and without interrupting data access |  |
| 1.23 | Proposed RDBMS must be able to apply new patches to active database nodes in database cluster dynamically in rolling manner without any downtime of database cluster and without interrupting data access. |  |
| 1.24 | RDBMS must support online operations such as table redefinition and index rebuild without database restart. |  |
| 1.25 | Proposed RDBMS must have built-in ability to view changes across row versions. |  |
| 1.26 | Proposed RDBMS must have built-in ability to rewind the TABLE to a past point in time. |  |
| 1.27 | Proposed RDBMS must have built-in capability to rewind the database to a prior point without the need to RESTORE the database. |  |
| 1.28 | Proposed RDBMS must have built-in ability to recover dropped objects. |  |
| 1.29 | Proposed RDBMS must be able to monitor SQL statements and analyze SQL statement execution in order to detect and diagnose database performance problems, and help administrators to proactively tune their database environment. |  |
| 1.30 | RDBMS must be proposed with suitable set of licenses to be installed on the Primary Site database servers, |  |
| 1.31 | RDBMS must include technical support including:   * Download of patches, upgrades and new releases. * 24 x 7 x 365 access to hardware and software professionals to report problems if they occur. |  |
| 1.32 | The Bidder is required to provide technical support for at least one year. |  |

|  |  |  |
| --- | --- | --- |
| **2** | **Software license – Relational Database Management System Type 2 (Gov) – Quantity 2 (DR)** | **Specifications offered** |
| 2.1 | A database management system must be proposed as relational database software (RDBMS - Relational Database Management System) |  |
| 2.2 | The RDBMS shall provide add, delete, edit, search, and sort options for records in the selected databases. |  |
| 2.3 | Proposed RDBMS must be fully compatible and certified by the RDBMS vendor for the operating system of the database servers, on the DR location and the database servers "Database Servers – Virtualized UNIX/Linux hosts". |  |
| 2.4 | Proposed RDBMS must not limit the size of the database to be created. |  |
| 2.5 | Proposed RDBMS must support concurrent multi- user access and must not limit the number of connected users. |  |
| 2.6 | Proposed RDBMS must be 100% compatible with common Internet/intranet platforms and Internet browsers. |  |
| 2.7 | Proposed RDBMS must support Unicode character set, as well as official languages of North Macedonia and English language. |  |
| 2.8 | Proposed RDBMS must support a Web browser based console interface and remote administration utility for administration, maintenance, backup/recovery, monitoring and tuning. |  |
| 2.9 | Proposed RDBMS must have built-in support for developing stored procedures, functions, and packages (collections of procedures and functions). |  |
| 2.10 | Proposed RDBMS must have built-in support for stored procedures, functions, and packages compilation during development and before execution. |  |
| 2.11 | Proposed RDBMS must support permissions assigned to database objects based on privileges, users and roles. |  |
| 2.12 | Proposed RDBMS must provide an audit mechanism. |  |
| 2.13 | Proposed RDBMS must provide network encryption for the data sent between the client and server. |  |
| 2.14 | Proposed RDBMS must support complete and incremental backup/recovery. Backup functionality must support online operations in such way that backup of database can be done while database is up and running. |  |
| 2.15 | Proposed RDBMS must support automatic recovery in case of a transaction or system failure. |  |
| 2.16 | Proposed RDBMS must have support for alphanumeric, unstructured data, XML as well as spatial data. |  |
| 2.17 | Spatial features of RDBMS must support:  Spatial data must support different geometry types such as: points, multi-points, lines, line strings, multi-line strings, polygons, multi- polygons, surfaces, multiple surfaces, 3-D geometry, and point cloud storage.   * Spatial operators for determining geospatial measurements like area, distance, length and perimeter, as well as geospatial set operations like union, difference, and symmetric difference. * Data models such as: topology data model for working with data about nodes, edges, and faces in a topology, network data model to model and analyze link-node graphs to represent physical and logical networks used in transportation, etc. * Raster data to store, index, query, analyze, and deliver data as raster image and its associated metadata. * Graphs such as property and RDF (Resource Description Framework) graphs. |  |
| 2.18 | Proposed RDBMS must have support for Machine Learning (ML) features including but not limited to: development of ML models and ML model scoring, predictive analytics which can use ML algorithms implemented as SQL functions, and built-in integration with open-source R language. |  |
| 2.19 | Proposed RDBMS must have support for table and index partitioning by dividing them into smaller pieces. Table partitioning must support different partitioning methods such as: range partitioning, hash partitioning, list partitioning, and composite partitioning (combination of other methods). |  |
| 2.20 | RDBMS must support online operations such as table redefinition and index rebuild without database restart. |  |
| 2.21 | Proposed RDBMS must have built-in ability to view changes across row versions. |  |
| 2.22 | Proposed RDBMS must have built-in ability to rewind the TABLE to a past point in time. |  |
| 2.23 | Proposed RDBMS must have built-in capability to rewind the database to a prior point without the need to RESTORE the database. |  |
| 2.24 | Proposed RDBMS must have built-in ability to recover dropped objects. |  |
| 2.25 | Proposed RDBMS must be able to monitor SQL statements and analyze SQL statement execution in order to detect and diagnose database performance problems, and help administrators to proactively tune their database environment. |  |
| 2.26 | RDBMS must be proposed with suitable set of licenses to be installed on the database servers on DR location. |  |
| 2.27 | RDBMS must include technical support including:   * Download of patches, upgrades and new releases. * 24 x 7 x 365 access to hardware and software professionals to report problems if they occur.   The Bidder is required to provide technical support for at least one year. |  |

Technical Responsiveness Checklist - Continue

| **Tech. Req. Number** | **Technical Requirement** |
| --- | --- |
| **4.1 Testing** | |
| 4.1.1. | The Supplier must organize the testing in two environments at supplier premises and at beneficiary premises |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 4.1.1.1 | The Supplier must perform Unit Testing (UT) for all software modules/services |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 4.1.1.2 | The Supplier must perform Integration Testing (IT) for all software modules/services |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 4.1.1.3 | The Supplier must perform Factory Acceptance Testing (FAT) for all software modules/services |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 4.1.1.4 | The Supplier must perform Site Acceptance Testing (SAT) for all software modules/services |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 4.1.1.5 | The Supplier must perform Qualification Testing (QT) |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 4.1.1.6 | The Supplier must deliver the testing documentation for the testing processes |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| **Tech. Req. Number** | **Technical Requirement** |
| **5.2 Technical Support** | |
| 5.2.1 | The Supplier MUST provide the following services under the Contract for a period of twelve months |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 5.2.1.1 | User Support/hot line |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 5.2.1.2 | Technical Assistance |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |
| 5.2.1.3 | Maintenance Services |
| Bidder’s technical reasons supporting compliance: | |
| Bidder’s cross references to supporting information in Technical Bid: | |

**Note:** For more info about Technical Requirements please refer to the ***Section VII - Requirements of the Information System***. All requirements listed in the ***Section VII - Requirements of the Information System*** should be included in the Technical Responsiveness Checklist.

Form of Bid Security (Bank Guarantee)

*[The bank shall fill in this Bank Guarantee Form in accordance with the instructions indicated.]*

*[Guarantor letterhead or SWIFT identifier code]*

Beneficiary:*[Purchaser to insert its* ***name and address****]*

RFB No.: *[Purchaser to insert reference* ***number for the RFB****]*

Alternative No*.: [Insert identification No if this is a Bid for an alternative]*

**Date:** *[Insert* ***date of issue****]*

**BID GUARANTEE No.:** *[Insert* ***guarantee reference number****]*

We have been informed that *[insert* ***name of the Bidder****, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof]* (hereinafter called “the Applicant”) has submitted or will submit the Beneficiary its bid (hereinafter called “the Bid”) for the execution of *[insert* ***Name of Contract****]* under Request for Bids No. [*insert* ***number****]* (“the RFB”).

Furthermore, we understand that, according to the Beneficiary’s, Bids must be supported by a Bid guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert* ***amount in figures*** *([insert* ***amount in words****)]* upon receipt by us of the Beneficiary’s complying demand supported by the Beneficiary’s statement, whether in the demand itself or a separate signed document accompanying the demand, stating that either the Applicant:

(a) has withdrawn its Bid prior to the Bid validity expiry date set forth in the Applicant’s Letter of Bid, or any extended date provided by the Applicant; or

(b) having been notified of the acceptance of its Bid by the Beneficiary prior to the expiry date of the Bid validity or any extension thereof provided by the Applicant has failed to: (i) execute the Contract Agreement, if required, or (ii) furnish the performance security, in accordance with the Instructions to Bidders (“ITB”) of the Beneficiary’s bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security issued to the Beneficiary in relation to such Contract Agreement; or (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary’s notification to the Applicant of the results of the Bidding process; or (ii) twenty-eight days after the expiry date of the Bid validity.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

*[signature(s)]*

Form of Bid Security (Bid Bond)

BOND NO. *[insert* ***number****]*

BY THIS BOND *[insert* ***Name****]* as Principal (hereinafter called “the Principal”), and *[insert* ***Name****],* **authorized to transact business in** *[insert* ***Jurisdiction****],* as Surety (hereinafter called “the Surety”), are held and firmly bound unto *[insert* ***Purchaser******Name****]* as Obligee (hereinafter called “the Purchaser”) in the sum of *[insert* ***amount in figures****]* [[8]](#footnote-9) (*[insert* ***amount in words]***), for the payment of which sum, well and truly to be made, we, the said Principal and Surety, bind ourselves, our successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal has submitted or will submit a written Bid to the Purchaser dated the *[insert* ***ordinal******number*** day of *[insert* ***month****] [****insert year****],* for *[insert* ***name of Contract****]* (hereinafter called the “Bid”).

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal:

1. withdraws its Bid prior to the Bid validity expiry date set forth in the Principal’s Letter of Bid, or any extended date provided by the Principal; or
2. having been notified of the acceptance of its Bid by the Purchaser prior to the expiry date of the Bid validity or any extension thereto provided by the Applicant has failed to; (i) execute the Contract Agreement, or (ii) furnish the Performance Security in accordance with the Instructions to Bidders (“ITB”) of the Purchaser’s bidding document.

then the Surety undertakes to immediately pay to the Purchaser up to the above amount upon receipt of the Purchaser’s first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser shall state that the demand arises from the occurrence of any of the above events, specifying which event(s) has occurred.

The Surety hereby agrees that its obligation will remain in full force and effect up to and including the date 28 days after the date of expiry of the Bid validity set forth in the Principal’s Letter of Bid or extended thereto provided by the Principal.

IN TESTIMONY WHEREOF, the Principal and the Surety have caused these presents to be executed in their respective names this *[insert* ***number*** day of *[insert* ***month****] [insert* ***year****]*.

Principal: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Surety: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 Corporate Seal (where appropriate)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
*(Signature) (Signature)*

*(Printed name and title) (Printed name and title)*

Form of Bid-Securing Declaration

*[The Bidder shall fill in this Form in accordance with the instructions indicated.]*

Date: *[insert* ***date*** *(as day, month and year)]*

Bid No.: *[insert* ***number of bidding process****]*

Alternative No.: *[insert* ***identification No if this is a Bid for an alternative****]*

To: *[insert* ***complete name of Purchaser****]*

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding or submitting proposals in any contract with the Purchaser for the period of time specified in Section II – Bid Data Sheet, if we are in breach of our obligation(s) under the bid conditions, because we:

(a) have withdrawn our Bid prior to the expiry date of the Bid validity specified in the Letter of Bid or any extended date provided by us; or

(b) having been notified of the acceptance of our Bid by the Purchaser prior to the expiry date of the Bid validity in the Letter of Bid or any extended date provided by us, (i) fail to sign the Contract agreement; or (ii) fail or refuse to furnish the Performance Security, if required, in accordance with the ITB.

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiry date of the Bid validity.

Name of the Bidder**\*** *[insert* ***Name of Bidder****]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder**\*\****[insert* ***Name of authorized person****]*

Title of the person signing the Bid*[insert* ***Title of authorized person****]*

Signature of the person named above \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date signed *[insert* ***ordinal******number****]* day of *[insert* ***month****]* , *[insert* ***year****]*

**\***: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\*: Person signing the Bid shall have the power of attorney given by the Bidder attached to the Bid

*[Note: In case of a Joint Venture, the Bid-Securing Declaration must be in the name of all members to the Joint Venture that submits the bid.]*

Section V - Eligible Countries

**Eligibility for the Provision of Information System**

In reference to ITB 4.8 and ITB 5.1, for the information of the Bidders, at the present time firms and information systems from the following countries are excluded from this bidding process:

Under ITB 4.8(a) and ITB 5.1:  *[insert a list of the countries following approval by the Bank to apply the restriction or state “none”].*

Under ITB 4.8(b) and ITB 5.1:  *[insert a list of the countries following approval by the Bank to apply the restriction or state “none”]*

Section VI - Fraud and Corruption

**(Section VI shall not be modified)**

1. **Purpose**
   1. The Bank’s Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.
2. **Requirements**
3. The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.
4. To this end, the Bank:
5. Defines, for the purposes of this provision, the terms set forth below as follows:
6. “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
7. “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
8. “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
9. “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
10. “obstructive practice” is:
11. deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
12. acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 2.2 e. below.
13. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
14. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
15. Pursuant to the Bank’s Anti-Corruption Guidelines, and in accordance with the Bank’s prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;[[9]](#footnote-10) (ii) to be a nominated[[10]](#footnote-11) sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
16. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect[[11]](#footnote-12) all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

PART 2 – Purchaser’s Requirements

Section VII - Requirements of the Information System

**(including Technical Requirements, Implementation Schedule, System Inventory Tables, Background and Informational Materials)**

**Technical Requirements**

**Technical Requirements**

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A. Acronyms Used in The Technical Requirements

0.1 Acronym Table

**Note**: Compile a table of organizational and technical acronyms used in the Requirements. This can be done, for example, by extending the following table.

|  | Term | Explanation |
| --- | --- | --- |
|  |  |  |
|  | API | Application Programming Interface |
|  | ABB | Application Building Blocks |
|  | ATP | Acceptance Test Plan |
|  | BI | Business Intelligence |
|  | BTI | Binding Tariff Information |
|  | BPM | Business Process Modelling |
|  | B2G | Business-to-Government |
|  | G2G | Government agency-to-Government agency |
|  | CA | Competent Authority |
|  | CASE | Computer-Aided Software Engineering |
|  | COTS | Commercial-of-the-Shelf |
|  | CBRA | Cross Border Regulatory Agency |
|  | CDWMS | Content and Document and Workflow Management System |
|  | CDEPS | Customs Declarations and Excise Documents Processing System |
|  | CEFTA | Central European Free Trade Agreement |
|  | CSV | Comma-Separated Values |
|  | CPU | Central Processing Unit |
|  | DMS | Document Management System |
|  | DMZ | Demilitarized Zone |
|  | DRC | Disaster Recovery Center |
|  | DG TAXUD | Directorate-General Taxation and Customs Union |
|  | DLP | data loss protection |
|  | DW | Data Warehouse |
|  | EA | Enterprise Architecture |
|  | EDI | Electronic Data Interchange |
|  | ETL | Extract, Transform and Load |
|  | ebXML | Electronic Business Extensible Markup Language |
|  | EXIM | Customs one-stop system for permits for import, export and transit of goods |
|  | EORI | Economic Operator Registration and Identification |
|  | EO | Economic Operator |
|  | EU CERTEX | Customs Single Window Certificates Exchange System |
|  | FAT | Factory Acceptance Test |
|  | FAQ | Frequently Asked Questions |
|  | FR | Functional Requirements |
|  | FTP | File Transfer Protocol |
|  | HIPS | Host Intrusion Prevention System |
|  | HTTPS | Hypertext Transfer Protocol Secure |
|  | HS | Harmonized System |
|  | IT | Integration Testing |
|  | ICT | Information and communication technologies |
|  | ISPs | Internet Service Providers |
|  | IoT | Internet of Things |
|  | IE | Information Exchange |
|  | IDE | Integrated Development Environments |
|  | ITE | Integrated Tariff Environment |
|  | JSON | JavaScript Object Notation |
|  | KPI | Key Performance Indicator |
|  | LAN | Local Area Network |
|  | LPCO | License, Permit, Certificate, and Other |
|  | LDAP | Lightweight Directory Access Protocol |
|  | MALMED | The Agency for Medicines and Medical Devices |
|  | MoU | Memorandum of Understanding |
|  | MTP | Master Test Plan |
|  | NCTS | New Computerized Transit System |
|  | OLAP | On-Line Analytical Process |
|  | PCA | Post-Clearance Audit |
|  | PCI DSS | Payment Card Industry Data Security Standard |
|  | PDF | Portable Document Format |
|  | PKI | Public Key Infrastructure |
|  | QR | quick response |
|  | QT | Qualification Testing |
|  | RBAC | Role Based Access Control |
|  | RTBH | Right to be Heard |
|  | RMS | Risk Management System |
|  | SAD | Single Administrative Document |
|  | SAT | Site Acceptance Test |
|  | SBB | Services Building Blocks |
|  | SOA | Service Oriented Architecture |
|  | SSO | Single Sign-On |
|  | SSH | Secure Shell |
|  | SEED | Systematic Electronic Exchange of Data |
|  | SMTP | Simple Mail Transfer Protocol |
|  | SSL | Secure Sockets Layer |
|  | SLA | Service Level Agreement |
|  | TDS | Test Design Specification |
|  | ToR | Top-of-rack |
|  | TLS | Transport Layer Security |
|  | UT | Unit Testing |
|  | UMS | User Management System |
|  | UML | Unified Modeling Language |
|  | UI | User Interface |
|  | UCR | Unique Consignment Reference |
|  | VPN | Virtual Private Network |
|  | WAN | Wide Area Network |
|  | XML | extensible Markup Language |

B. Functional, Architectural and Performance Requirements

1.1 Legal and Regulatory Requirements to be met by the Information System

The Information System MUST comply with the following laws and regulations:

1.1.1.1 The Law on Customs (Official Gazette of the Republic of North Macedonia No. 39/05, 4/08, 48/10, 158/10, 44/11…. 144/18, 105/119, 158/19 and 279/19, 39/2005; 4/2008; 48/2010; 158/2010; 44/2011; 53/2011, 11/2012, 171/12, 187/2013, 15/2015, 129/2015, 154/2015, 192/2015, 23/2016, 144/2018, 110/2021);

1.1.1.2 The Law on Customs Tariff (Official Gazette of the Republic of North Macedonia No. 23/03, 69/04, 10/08, 17/08, 160/08, 35/10, 11/12, 93/13, 44/15, 81/15, 192/15, 124/19, 39/22);

1.1.1.3 The Law on Customs Administration (Official Gazette of the Republic of North Macedonia No. 46/04, 81/05, 107/07, 103/08, 64/09, 105/09, 48/10, 158/10….129/15, 23/16 and 120/18, 122/21);

1.1.1.4 The Law on Excise Duty (Official Gazette of the Republic of North Macedonia No. 108/19, 143/19, 225/19 and 275/19)

1.1.1.5 The Law on Customs Measures for Protection of Intellectual Property Rights (Official Gazette of the Republic of North Macedonia No. 88/15, 154/15, 192/15 and 23/16)

1.1.1.6 The Law on Representation Activities Performed in Customs Procedures (Official Gazette of the Republic of North Macedonia No. 180/14, 154/15, 192/15,23/16, 110/21 and 89/22);

1.1.1.7 The Law on Administrative Fees (Official Gazette of the Republic of North Macedonia No. 17/93, 20/96, 7/98, 13/01, 24/03, 19/04, 61/04, 97/05, 7/06, 70/06, 92/07, 88/08, 130/08, 6/10, 145/10, 75/11, 84/12, 192/15, 23/16);1.1.1.8 The Law on the General Administrative Procedure (Official Gazette of the Republic of North Macedonia No. 124/2015 and No. 65/2018);

1.1.1.8 The Law on Electronic Documents, Electronic Identification, and Confidential Services (Official Gazette of the Republic of North Macedonia No. 101/19 and 275/19);

1.1.1.9 The Law on Electronic Administration and Electronic Services (Official Gazette of the Republic of North Macedonia No. 98/19 and 244/19)

1.1.1.10 The Law on Electronic Trade and Commerce (Official Gazette of the Republic of North Macedonia No. 98/19 and 244/19)

1.1.1.11 The Law on Data Protection (Official Gazette of the Republic of North Macedonia No. 42/20)

1.1.1.12 Decree for setting up and usage of the information system for data processing in e-format and e-signature while import, export and transit (Official Gazette of the Republic of North Macedonia No. 134/08, 13/11, 138/13, 208/15 and 232/19)

1.1.1.13 Rulebook for the costs for issuing of permits and licenses (Official Gazette of the Republic of North Macedonia No. 180/16)

1.1.1.14 Decision on classification of goods for export and import (Official Gazette of the Republic of North Macedonia No. 42/13 and 92/13)

1.1.1.15 Manual for paying of the administrative fees for import, export and transit permits using the EXIM IT system.

1.2 Business Function Requirements to be met by the Information System

**1.2.1 The New Single Window Information System MUST support the following functional requirements**

**1.2.1.1. New Single Window Architecture**

In the scope of the New Single Window are the following modules:

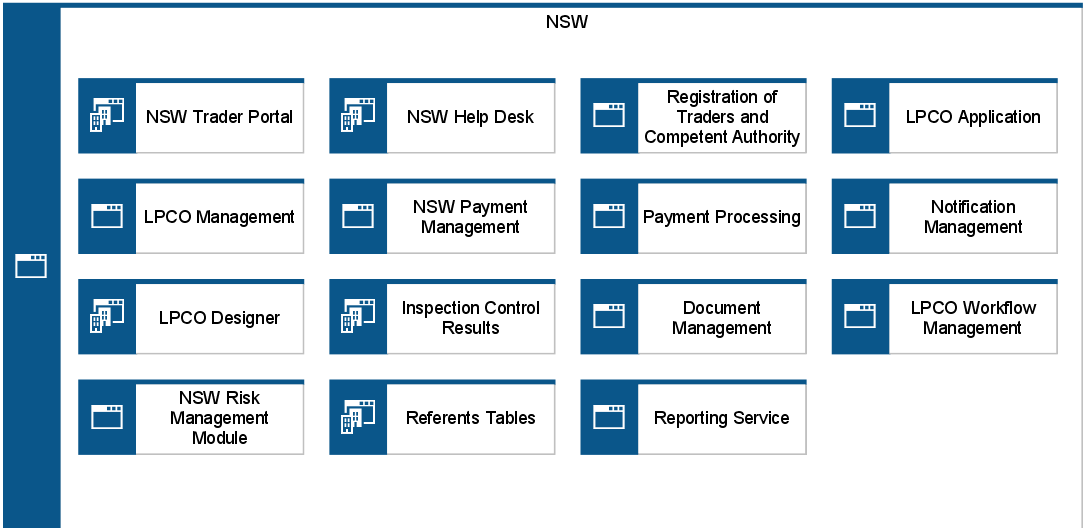


Figure 1: NSW Components

|  |  |
| --- | --- |
| Component | Description |
| NSW Trader Portal | The Trader Portal serves as a redirect platform, guiding traders to their desired services. Traders can use the portal to access the NSW for submitting LPCOs and other border-related documents, as well as interact with the customs processing system (CDEPS and NCTS) seamlessly. |
| NSW Help Desk | The Helpdesk service is where the NSW Helpdesk support the traders and CBRA users on issues related to the usage of the NSW. It uses the issue tracking component and it is recommended that it is provided by a COTS solution.  The NSW Helpdesk will have an issue tracking system as the main contact point towards all users of the NSW system. The issue tracking will be a traditional way of handling issues, questions, and bugs that may arise while using the NSW.  For the NSW user role:   * Register issue; * Update issue; * Search and view status of submitted issues; and * Close issue.   For the NSW Helpdesk role:   * Register issue; * Update issue; * Search and view issues based on users, status, category and date of submission; * Solve issue; and * Close issue |
| Registration of Traders and Competent Authority | The Registration Management provide the means of a central registration, management, and control on all stakeholders and traders as users in the NSW.  • Trade users who make applications or submissions requiring regulatory approvals for trade transaction, and those submitting statutory declarations/ applications/ reports etc.;  • CBRA users comprising regulators of the trade transactions in the country, who review, process, and issue the regulatory approvals of the trade transaction in response to the applications or submissions from the trade users. This category includes staff members (but not limited) and authorized users from CBRAs; and  • Information users comprising individuals and organizations that need to access the trade data for authorized and official purposes. The NSW may provide this category of users a set of tools to view and extract relevant and authorized information on trade transactions available in the NSW. |
| LPCO Application | The LPCO application component enables the trader to browse for the commodity to be traded, country of origin/destination, and to determine the regulatory requirements for the specified scenario. The trader can see all previous LPCO in his account/folder. In case a new LPCO is required, the trader can apply for this using a form with the required data elements. Any previous and reusable data elements available in the NSW will be pre-populated in the form. |
| LPCO Management | CBRA can access the LPCO applications and data through the LPCO Management service. CBRA users can review, update, create, approve/reject LPCO, check and release quantity. |
| Payment Management | In the frontend Payment service, authorized CBRA users can view payment details on performed and outstanding payments for the various transactions, per entity. |
| Payment Processing | The trader must be able to pay LPCO fees and fees for the use of NSW, through the NSW in order to facilitate a smooth process. The payment services are used in all business processes and shall be processed electronically. |
| Notification Management | The NSW shall have technical Notification Gateway capabilities, responsible for handling notification to NSW users. The purpose of this component is to accomplish an effective NSW solution where a user is notified of the relevant changes and does not have to manually check if something has changed.  Given that various users will have varying preferences for how they want to be notified, the Notification Gateway component must be flexible enough to enable many notification methods and allow the user to customize the settings so he or she is notified in the preferred manner.  The application is a web-based system with the following main functionality.  For the NSW user role:  • Administrate notification settings.  For the components generating notifications  • Send notification. |
| LPCO Designer | Allows for the creation and editing of forms/templates used in the system. The forms perform validations of the entered data. |
| Inspection Control Results | Information on any inspections of LPCOs or declarations are stored and managed in the Inspection object. Schedule, inspection order, assignments, time and place, and report of inspection are data that is stored in this object. |
| Document Management | The NSW is providing e-services for trade and regulatory purposes. The NSW is closely dependent on and linked to the DMS and Content Management System, which provides the information, forms, and document management. |
| LPCO Workflow Management | The workflow management is integrated through the integration management with other components such as the document management for storage of documents. |
| NSW Risk Management Module | The Risk Management module enables the authorized CBRA user to access the risk management profiles and perform updates. The user shall also be able to access and view:  • Relevant risk data and intelligence;  • Inspections performed and outcomes;  • Entity based statistics to determine and identify advanced queries on all aspects of the data model in the NSW; and  • Post-Clearance Audit (PCA) analysis using analytical processing. |
| Referents Tables | Data management from the referent tables is conducted via the system by the administrators, who can enter, edit, and erase some data. These changes are reflected all over the system. |
| Reporting Service | The reporting engine for providing statics and dynamic reporting and dashboards for New Single Window. |

**1.2.2. General Functional Requirements**

The general functional specifications defined in this section apply to all NSW components and features.

**The Bidder must consider up to 30 complimentary changes during the Specification Phase 1 (Item Line no. 2 in the Implementation Schedule Table) on requests of the Purchaser. This requirement is based on possible evolutive changes of requirements between the period of RFB publication and the beginning of development activities (Item Line no. 3 in the Implementation Schedule Table). These requests may encompass legislative, technical, business, and other alterations that could affect the technical specifications outlined in the RFB.**

| **ID Number** | **Description** |
| --- | --- |
| FR1 | The NSW is designed to facilitate Business-to-Government (B2G) and Government agency-to-Government agency (G2G) for international trade-related transactions. The NSW should facilitate this and coordinate communication with all the relevant agencies. |
| FR2 | All parties should be able to use a common Trader Registration identification for all transactions. |
| FR7 | The NSW shall have a generic capability to provide links in the NSW UI to other CBRA services offered elsewhere, to preserve the perception of a single window for trade transactions submission/lodgments. |
| FR8 | The NSW shall serve as the primary message repository for LPCO/ reference for data content. |
| FR9 | NSW shall be the authoritative record for all international trade messages it receives. |
| FR10 | The NSW shall provide for a flexible set-up for the NSW system administrator to configure data-driven validation rules and decisions (e.g., where certain information must be entered into the appropriate field.). It shall facilitate the regulatory agencies to enforce data validations and generate requests for more information using notification messages distributed via NSW. The NSW will make data-driven routing decisions after the data has been validated. |
| FR11 | The NSW shall provide for an authenticated and authorized user with the ability to query the status of a lodgment and receive a response from NSW. This may be the submitter of the lodgment, or another interested party. This user may be a person using a NSW Web UI or via messaging. NSW will enforce data access rules controlling which users have access to which lodgments. |
| FR13 | The design of the NSW shall ensure that NSW data recipients will only receive information they are entitled and authorized to. |
| FR14 | The NSW will cater for the NSW Operator to apply adequate security and role-based access control to allow users (where a user could be a system or a person) to perform necessary actions in NSW. |
| FR16 | The NSW shall also cater for the transaction history access and lifecycle control. The NSW will keep records of re-submissions for all transaction types (lodgments and registrations). |
| FR18 | A user (subject to having the appropriate permission to perform the action) can search for all his/her transactions (e.g., LPCO application and payment transaction) and, after finding the required transaction, perform one of the following actions):   * View the transaction history including being able to see previous versions of the transaction; and * Obtain the current status for each regulatory agency against that transaction. |
| FR19 | New Data Sources: As new and modern trade and logistics platforms get developed, the NSW should be able to integrate with the platforms. |
| FR20 | The NSW will provide for comprehensive status management requirements, receive status updates, record and track lodgment status. It will receive lodgment status updates from time to time, from the customs declaration processing system and CBRAs as well as other regulatory authorities. The NSW will record the combined view of lodgment status across all agencies. This view will be available on request (via message or the user interfaces to all authorized parties. It will also be pushed out to known notification parties. |
| FR21 | NSW shall fully support audit of messaging e.g., originator, date/time and original message received through to destination(s), date/time and content of all outgoing messages. |
| FR22 | The NSW shall provide for data loss protection (DLP), and implement comprehensive solution with centralized workflow capabilities, integrated policies, and customized reporting, in order to manage data loss and protect the sensitive data through a modular DLP program that offer capabilities across three main vectors: data at rest, data in motion, and data at endpoints. |
| FR137 | The NSW System must support the CBRA with configurable workflow management for processing of each LPCO type. |
| FR160 | Audit trail for all transactions including access to information, changes to data/information must be maintained in the system such that information can be viewed by applicant and CBRA staff. |
| FR161 | Access to the Audit trail should be restricted to authorized CBRA personnel. |
| FR181 | The NSW shall serve as the “single electronic entry point and a platform for person involved in import, export, transit. |
| FR249 | The system also must be able to offer a user interface where it is possible to search and view notifications after logging in to the NSW portal. |
| FR250 | The NSW shall cater for distribution of notifications and status updates (e.g. via messaging, API, email, SMS, web service updates to the user interfaces and other applicable interfaces). The NSW will forward status updates and notifications received from regulatory authorities’ systems to the submitter and any other notifiable party via messaging interface. |
| FR251 | The NSW will provide status updates, error messages or requests for information from regulatory authorities to notifiable parties via or web service updates to the respective user interfaces and/or via email. |
| FR252 | The gateway shall ensure reliability, the messaging solution must support “store and forward” messaging and implement when required by recipients. |
| FR253 | Communication protocols supported shall include ebMS (ebXML, Messaging Service), FTP, SMTP, API (RESTful) and other suitable protocols and act as a web service client and server. |
| FR254 | The solution must support various messaging formats, including JSON, XML and ebXML. |
| FR255 | Logging shall be supported on both transmission and message levels. Any information within the transmission shall be logged and the log must be searchable. It shall also be possible to search and find related messages. Logging entries shall be stored for a configurable amount of time. |
| FR256 | The gateway forwards a received message to the appropriate backend system for storage and processing. |
| FR257 | Transforming messages from different formats is required by the gateway. The solution shall support any-to-any format transformation. |
| FR258 | Transmission and messages shall be archived and possible to be recreated and read at a later stage. The storage should store messages for at least three years. |
| FR400 | Any communication between customs systems (including EU CERTEX) and the NSW, the data should be transformed, using the transformation rules. |
| FR401 | Messages received from all systems should be technically validated. If technically valid, it should be further processed. If not, generic error should be responded to that system. The error codes should be used from the MS-CERTEX Integration Guide (these are to be used for CERTEX too). |

**1.2.3. NSW Functional Requirements and services**

Below is a detailed presentation of the Functional Requirements and services of the components of the NSW.

**1.2.3.1 NSW Trader Portal**

**1.2.3.1.1. NSW Frontend Services**

The frontend services illustrate the functions and UI that the NSW users can use to perform their specific tasks in the NSW. On the left side are the forms that the trading community can use to submit LPCO applications, different types of declarations, and request for inspections and also track the current status of applications and documents submitted to the NSW. On the right side are the frontend services for government departments. These include user management services for registering users, approval forms for approving and managing the LPCO applications, forms for scheduling, reporting the outcomes of inspections, and the release of goods. Access to the services will be over the Internet and mobile access shall be provided for applicable services, for example, inspecting departments shall be able to access inspection information and report outcomes of inspections through a mobile device. Frontend services will be deployed on web servers and shall support mobile access.

**1.2.3.1.2. Portal**

NSW will provide a public portal (e.g., available to persons interested in registering for NSW) and separate web portals for the four distinct user-groups:

* Traders
* Government Agency Officers CBRA’s
* Information Consumers
* System Administrators

Each portal will provide a separate login/welcome page with explanatory notes on the NSW services, specific online help facility for all system functions, terms and conditions of use, FAQ, helpdesk contact information together with standard login, lost username retrieval / password reset functions (including protocol for establishing the identity of the person losing those details) etc.

The NSW supports the following services:

**1.2.3.1.3 Trader Frontend Services**

**1.2.3.1.3.1. Public Website**

The public website of the NSW provides basic information and services such as:

1. General information about the NSW;
2. News section;
3. Information about trade procedures;
4. General statistics from the NSW BI component;
5. Login for registered users;
6. Access to registration service;
7. Forgotten username/password service;
8. Submitting enquiries to the NSW Helpdesk
9. Access End User Agreements.

**Web LPCO Application for Traders Service**

The LPCO application component enables the trader to browse for the commodity to be traded, country of origin/destination, and to determine the regulatory requirements for the specified scenario. The trader can see all previous LPCO in his account/folder. In case a new LPCO is required, the trader can apply for this using a form with the required data elements. Any previous and reusable data elements available in the NSW will be pre-populated in the form.

Selection of the LPCO type shall be possible by:

(1) Selecting the LPCO type by name and/or code,

(2) Starting with a commodity code and finding applicable LPCOs,

(3) Starting with a CBRA name and finding applicable LPCOs.

The NSW will use to the maximum extent possible data elements already held by the system from the Trader’s or Transaction Folder for form completion, pre-populating data fields where such data already exists.

The system will use Commodity Code as the primary product identifier for LPCO processing and must be captured for all LPCO applications for all CBRAs.

***Steps for Web LPCOs Application for Traders***

1. User logs on with ID;
2. NSW checks ID permissions;
3. If approved, user can lodge an LPCO application; system automatically pulls relevant data already know and requests user to submit data still needed; alternatively, user may copy an application made before and update details where needed;
4. LPCO application is assessed by CBRA;
5. If conditions are met (e.g., payment of fees) and the application has been approved, LPCO is issued to the user in the requested format; an electronic copy is retained in the NSW; where cooperation agreements are in place, LPCO data may be shared automatically with trade partners.

Alternatives for LPCOs issued by foreign CBRAs (e.g., origin documents, health certificates, certificate of airworthiness, CITES permit)

1. User uploads a scanned copy of the LPCO into the NSW; or
2. Foreign CBRA uploads/links the LPCO into the NSW (e.g., within the framework of a cooperation agreement or shared electronic systems through the SEED+ solution.

After issue of the LPCO, a ‘printer friendly’ copy of the issued LPCO may be generated in pdf format.

**1.2.3.1.4. Declaration Submission Gateway**

Declaration Submission Gateway fills the capabilities of connectivity service between the consumers (Traders or Economic Operators) and providers (CDEPS, NCTS and NSW). This provides a level of indirection between the consumer of a service and its provider. The provider interface is only exposed to the Gateway and the gateway is exposed to the consumer, meaning it implement the responsibility to resolve service provider location and to achieve an optimal routing request across the network.

The service holds the bridge between the Economic Operators and New Single Window and Customs Declaration Processing Systems (CDEPS and NCTS). For the Economic Operators, the Gateway is needed to communicate for lodging a declaration (Import, Export, Transit, etc.) and for submitting a LPCO Application for issuing a certificate. From there, the Gateway, knows to which system it needs to forward the messages. In case, all declarations are submitted via NSW, after the declaration is in status accepted, then the system must transfer the declaration data to the Data Base of NSW. The final decision, whether all declarations will be submitted via NSW, will be made during the implementation phase. If that is the case, the modality of their submission will also be defined in the implementation phase. Also, the systems of the other EO should be taken into account in terms of safety and security. The final decision will be conditioned that the supplier will provide a detailed design and how this functionality will be handled during the user acceptance testing (UAT).

The Gateway Connectivity Services provide the capability to simplify the task of the invoking services through location transparency of the requested services. This will make the use of services possible wherever they are needed.

Gateway Connectivity Services support interconnectivity and host mediation logic that can perform message validation, transformation, intelligent routing, augmented functionality (such as logging or auditing) to enable the managed interconnectivity of the business services. Services are exposed through so-called “endpoints” that define the way service consumers can interact with them. These endpoints include the definition of the physical location of the service interface, the communication protocol to be used and the applicable policies (e.g. security).

Moreover, the Gateway Service Connectivity Services are business-domain neutral and therefore there is a clear distinction between:

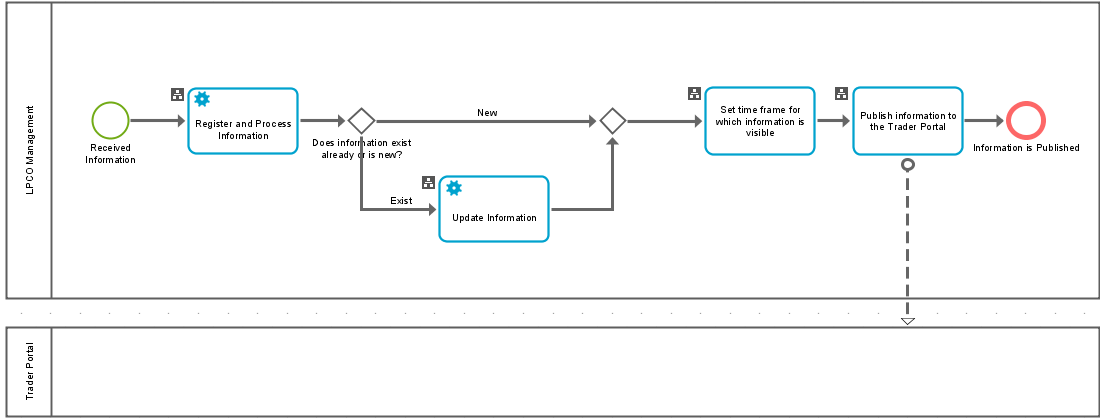
* The Business Logic (NCTS, CDEPS, NSW), the back-end part of a service interaction relating to the service message contents. This is business and depends on the functionality exposed by the New Single Window, CDEPS, and NCTS (as providers).
* The Service Message Processing Logic, the part of a service interaction and its surrounding environment that executes a variety of service message processing tasks, such as transformation, validation, auditing and logging, which are agnostic to specific business logic and relating to the effective application of technical exchange protocols.

The Gateway should have no message lost, meaning the message is kept until acknowledgement of reception is received from the partner service (consumer/provider).

The NSW automate the following processes:

* Publish the Applicable Procedures, Documents, Fees and Charges.
* Manage EO access to NSW services

**1.2.3.1.5. *Publish the Applicable Procedures, Documents, Fees and Charges***

******



*Figure 2: BPMN Process Diagram: Publish Applicable Procedures, Documents, Fees and Charges*

**Process Description***:* The process collects all necessary information regarding the fees and charges and publishes it to the trader portal. The information can be updated thought the New Single Window and Competent Authorities Systems. For the New Single Window, the NSW Officer will update the data; and for the CA systems, message is received and published to the trader portal.

**Process Steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Event | Received Information | The LPCO Management application has received information about the procedures, the required documents and the applicable fees and charges for applications for permits and licenses and for the inspections. This information is received from the Competent Authorities in a number of ways - through e-mail, in written, etc. |
| Service Task | Register and Process Information | The available information about procedures, fees and required documents is processed and recorded at the LPCO Management. |
| Service Task | Update Information | The LPCO Management application receives and stores the information about procedures, required documents, fees, charges (due and paid) and payments which it has received. |
| Service Task | Set time frame for which information is visible | The operation gives the possibility to set the time frame in which the information will be visible. The published information can either be information provided in the publish operation, information stored in the system (documents) or eForms. |
| Service Task | Publish information to the Trader Portal | The information is published in the NSW. The published information can either be information provided in the publish operation, information stored in the system (documents) or eForms. |
| End Event | Information is Published | The NSW application has made the information about the procedures, documents, fees and charges for applications for permits and licenses and for the inspections available to traders. |

**Functional Requirements:**

|  |  |
| --- | --- |
| **ID** | **Description** |
| FR589 | The system must be able to register and process and store information it has received. |
| FR590 | The system must be able to process the details of the information, store the data, compare with existing fields and update the separate data elements. |
| FR514 | The system must be able to limit the time frame during which information is visible. |
| FR515 | The NSW must be able to publish information about the procedures, documents, fees and charges for applications for permits and licenses and for the inspections and any updates to it. |

**1.2.3.1.6. Manage EO access to NSW services**

Economic Operators (Traders) must be able to access the respective resources to which they should have permission to access, using User to System and System to System Interactions. The system must offer the capabilities required for a secure and controlled access to System to System and User to System.

The User to System refers to Web Applications, where a front-end as reverse proxy receives the request, authenticate and authorize it, in order to propagate it to the requested resource from where response is received and forwarded to the requestor.

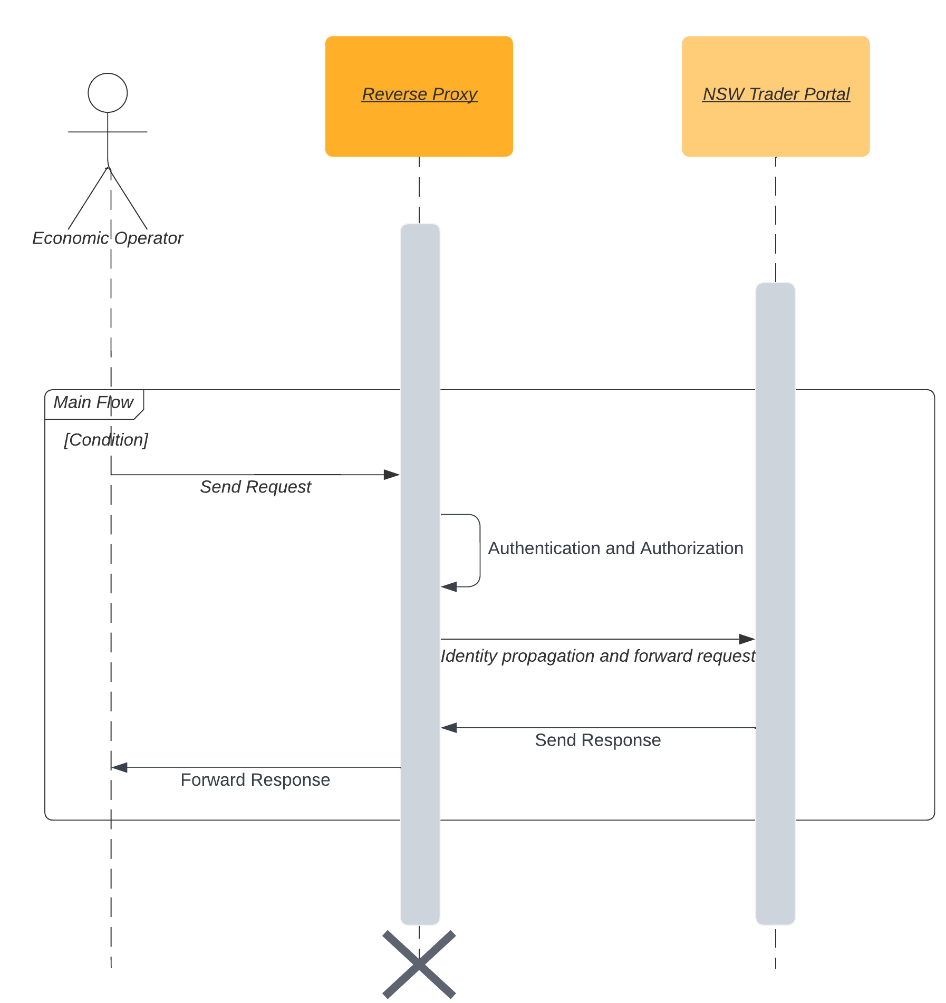


Figure 3: Manage EO Access to NSW services (User to System)

The steps are:

Economic Operator initiates a request towards a web-based URL available on the Trader Portal;

1. The reverse proxy of the trader portal performs authentication and authorization of the request;
2. The Reverse Proxy propagate to the right resource on the Trader Portal;
3. The Trader Portal sends the response;
4. The Reverse Proxy forwards the response to the Economic Operator.

System to System interaction is where a message is received from Economic Operator system and expecting an answer from the provider (NSW resource).

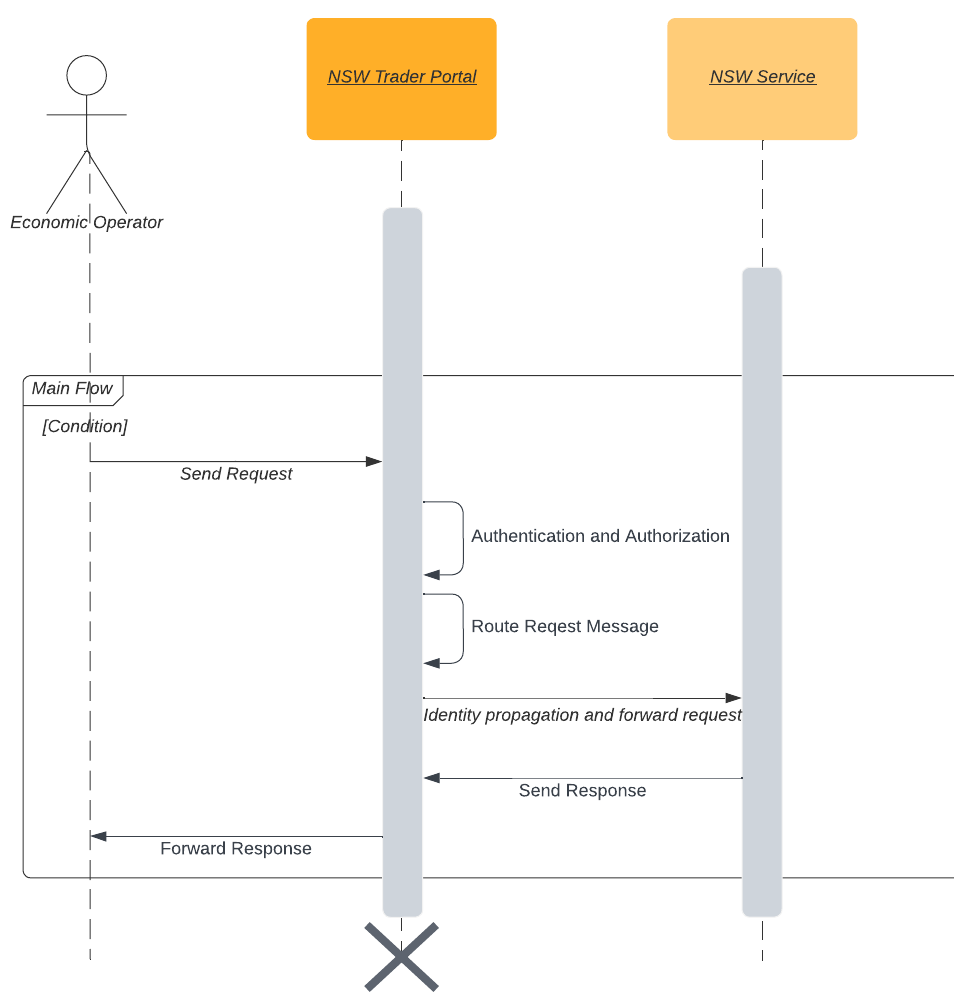


Figure 4: Manage EO Access to NSW services (System to System)

The steps are:

1. Economic Operator application sends a request towards a Trader Portal (Reverse Proxy;
2. The reverse proxy of the trader portal performs authentication and authorization of the request;
3. The request is routed within the NSW Trader Portal;
4. The NSW Trader Portal Reverse Proxy sends the request to the service provider, using the endpoint retrieved in step 3;
5. The Service Provider send response;
6. The Trader Portal sends the response.

**1.2.3.1.7. NSW Portal Functional Requirements**

| **ID Number** | **Description** |
| --- | --- |
| FR23 | NSW shall provide for an internet-based Web Portal for access to the NSW services for all categories of users that are to be registered on NSW. |
| FR24 | Specific system functions and tools will be accessed utilizing three respective User inter-faces as follows:   * Registered trade users shall be able to use the trader’s user interface to prepare and submit all necessary applications for LPCOs and also prepare and submit supporting documents, view their processing status and receive notifications of issue as well as to access payment and other information services; * CBRA user interface will support CBRA users for processing LPCOs; * Information Services users of the UI of the NSW system will be provided with a set of tools to view and extract relevant and authorized information on trade transactions. |
| FR25 | The NSW Portal will be a single access points for all users of the NSW. Only registered stakeholders and their authorized staff shall be provided the authenticated and authorized access to the respective UI. Based on their registered role and functions, the users will be provided different access to the NSW features/functionalities. The system should provide functionality of multifactor authentication and possibility to integrate with the government's authentication framework (if any available). |
| FR26 | The NSW Portal shall be segregated into three separate zones – Traders’ Zone, CBRA Zone and Information Zone. Each of the zones must be supported by above-mentioned user interfaces (UI), accessed by authorized users, perform specific functions related to their roles. |
| FR28 | All these features shall allow NSW to be available and accessible anywhere, anytime to all concerned stakeholders as required. |
| FR29 | The Portal and Trader Zone / UI shall have counter to track the number of visits by external stakeholders / Traders. While the Regulatory Authority Zone / UI shall be supported by a comprehensive audit trail to capture every activity performed by the concerned User, like login sessions, values changed, documents uploaded etc. User wise activity report shall be generated through the system as required. |
| **General Portal/UI Requirements** | |
| FR30 | The NSW Portal must display both static and dynamic content via the web and mobile browser in different form factors. The content and information to be displayed on the Portal should be managed and administered via the “NSW Portal Administration” functionality. |
| FR31 | The portal must contain a centralized content management. Further, the NSW Portal should provide a secure access to authorized access for users into the NSW system. |
| FR32 | The Portal should be able to display content in two languages – English and Macedonian (flexibility needed with regard to character-set – roman and Cyrillic Support for UTF-8 encoding). (Support for the Macedonian and English Language and regional settings (date, time, currency and number format, and other regional and cultural conventions at national level) |
| FR33 | The Portal must allow the User to update his/her profile; and if he/she is the entity administrator, shall be able to manage the entity’s registered employee accounts. |
| FR34 | The content and information to be displayed on the Portal should be managed and administered via the “NSW Portal Administration” functionality, which must contain a centralized content management. |
| FR35 | The NSW Portal must provide a secure access to authorized users into the NSW system, with strictly controlled access and privileges based on Role Based Access Control (RBAC) mechanism defined through the “NSW Portal Administration”. |
| FR36 | The type of content that NSW Portal shall display shall include (but not limited) to:   * Static Content and Dynamic Content – The various types of static and dynamic content / information, static web pages, animation, videos etc.; Information about the stakeholders, their roles, functions, policies and guide-lines, contacts information, etc.; * Information about Services available, criteria, applicable fees, process and compliance requirements etc.; * News and Events; * Frequently Asked Questions (FAQ) / integration with Chabot / Knowledge repository; * Key initiatives on Trade facilitation; * Photo Gallery / Video gallery; * News / Communications from CBRAs; * Site Map and navigation directions; * Information Desk / Helpdesk and other contact details; and * Quick links to external applications / sites, as applicable. |
| FR37 | The NSW Portal must allow for regular publication reports/information/statistics for viewing, and selected download of reports and statistics. These contents can be configured to be automatically updated on the portal as defined by the authorized content publisher in the Portal “Content Management” functionality. |
| FR38 | On the UI, the NSW Portal shall cater for configurable and customizable dashboard. The UI should allow the User personalization features to configure the dashboard display for his purposes. |
| FR39 | The following key features are required to be implemented for the personal dashboard facility:   * Summary of all activities, service requests, status etc. as first landing page; * Quick Links – Links within the application as well as external links to access any application functionality or website other than NSW; * Pending or Outstanding Activities/Tasks List – arranged sequentially, based on type of tasks. The standard sequence of completing the tasks should be on First-in-First-out (FIFO) basis, with override feature; * Completed Activities / Tasks – All the completed activities / tasks should be dis-played to the concerned user, in case the user wants to refer to it in future; * To display MIS reports retrieved from the NSW MIS functionality; and * Escalations/ Red Flags – Related to any notifications, alerts etc. as per pre-defined logic or escalation matrix. |
| FR40 | The NSW Portal must provide an audit trail function should capture any such input in the system. |
| FR41 | The NSW Portal must provide three separate UI functional sets - Trader UI, Government Agency UI and Information Services UI. |
| **Trader UI Requirements** | |
| FR42 | The Trade user must be able to log in and access the homepage of the Trader UI, which shall display a menu of functions applicable to the user, alert of any new notification messages and status of applications. |
| FR43 | The UI shall display the lodgment screens of the other NSW functionality – LPCO. |
| FR44 | The User must use the UI to access into the NSW services – for application of LPCOs and to upload required particulars and scanned/ digital copies/ images of supporting documents (as attachments) to facilitate paperless processing. |
| FR45 | The UI must provide lodgment status updates, approvals, rejections, and tracking information on transactions conducted in the NSW. This includes a feature to view historical transactions. |
| FR46 | The UI must provide alerts and messaging notification service to the User for all messages / communication issued by the Customs, CBRAs and other regulatory authorities. |
| FR47 | The UI must provide the User to access the payment facility of the NSW Payment Functionality, to conduct payment according to the payment notification/advice. |
| FR48 | The UI must provide a calendar feature for the User to keep track of expiry date of LPCOs or any other documents or trade transactions and allow the User to set reminders in advance for renewals. |
| FR106 | The System must establish a database of LPCO applications. For each LPCO application form, the list of Tariff codes that can be selected by Applicant will be linked to the form. |
| FR117 | The Applicant must be able to change or update the information submitted for an application earlier as well as the associated supporting documentation. There should be no limitations regarding adding new, updating existing or deletion of associated documentation prior to submission. The NSW System must ensure that only the originating applicant (or his authorized representative) can change/update the application. |
| **CBRA UI Requirements** | |
| FR49 | The Customs UI must provide the functions for the Customs officers to conduct the necessary oversight pertaining to the trade transaction at the following stage:   * LPCO application, processing, and approvals. |
| FR51 | The Customs UI must ensure that authorized Customs officers have access to data pertinent to them as assigned based on roles and workflow management configuration. |
| FR52 | The Customs UI must provide the Customs officer, the online ‘in-tray’ to examine the submissions / lodgments in process, including all the supporting documentation attached to the lodgment by the Trader. |
| FR53 | The Customs UI must allow communicating/enquiry facilities from the Customs and display in the Trader UI, concerning the lodgments or submissions. |
| FR54 | The Customs UI must allow verification of the LPCO via the NSW System. e.g., to verify authenticity and validity of all required Certificates, Licenses, Permits, etc. |
| FR55 | The CBRA UI provides for the staff of CBRAs to view all lodgment of the LPCOs, and to access the NSW System to process LPCO process applications. The UI shall be configurable for the respective CBRA, based on configuration of workflow and rules appropriate for the CBRA. |
| FR58 | The CBRA UI shall have provision for personalized dashboard showing all pending, in progress and completed tasks for each User logging into the system. |
| FR59 | The NSW must allow the CBRA staff and officers to log into portal and perform validation, processing and approval / rejection of the LPCO applications. The system shall automatically provide updates on the status to the concerned stakeholders including the Trader. |
| FR60 | The CBRA UI must provide event triggers when a Trader submits a LPCO request in the form of a message in a workflow ‘In-tray’ of an officer (or group of officers having the same role). |
| FR62 | The CBRA UI must display all the LPCO lodgments for the CBRAs to pursue and verify. The system should send automatic alerts to concerned officials of the CBRA as required. |
| FR63 | The UI should track the activities performed by each User in the entire process chain for escalation and reporting purposes. |
| **Information User UI Requirements** | |
| FR64 | The Information UI must provide detailed information about the services and processes related to NSW and Customs regarding Trade i.e., both imports and exports. |
| FR65 | The UI must provide a “Personalized Dashboard” for each User category, with information and workflow customized specifically with respect to Trade rules and regulations in the country. |
| FR66 | The UI must provide a wizard-like functionality to assist the traders through a sequence of dialogue boxes / responses that would lead the trader to a series to well defined steps on how to avail any trade related service. |
| FR67 | The UI must provide access to all required forms and detailed checklist of all documentary evidence or information that may be required to avail any service as required. |
| FR68 | The UI must provide updated information about the CBRAs and LPCOs along with policies and procedures highlighting changes if any, that may require changes in the required process or data requirements. |
| FR69 | The UI should also provide a knowledge base and help manual with key word search capability to allow users to refer to any specific information about services or processes as required. |
| FR70 | All the related information, and step wise key steps should be dynamically updated as and when the services or processes or related requirements are amended by respective stakeholders. |
| FR71 | The UI should provide an audit trail/history of all changes in any specific service/process related to trade facilitation in the country. |

**1.2.4 Registration of Traders and Competent Authority**

**1.2.4.1. Registration Service**

The registration service enables traders to register only once with the NSW. The registration service will provide for coordination and communication of registration for all involved stakeholders.

At the beginning, in the NSW a temporary module for registration of the new NSW users should be created. The existing user name and password for UMS/CDEPS, which are used for access to other systems, will be migrated to NSW. Besides these two systems, where there are registration data found in other existing systems, the Registration module shall also cater for migration from these systems.

In the future, registration should be done in UMS/EORI system and the NSW as a portal for access to all systems in CA, will be only used as a “Single Sign On” point, i.e., it will use the roles and privileges that will be assigned to the users that are registered in UMS/EORI system, to allow access to the appropriate systems.

The NSW should support both procedures for sign-on and access to the system. The temporary module for registration will remain active even after the implementation of the new UMS/EORI system which will be developed based on EU requirements and specifications. It will be used for registration of new users for non-customs formalities.

The NSW supports the following services:

**1.2.4.2. Registration**

The registration service enables the trader to become a registered user. The registration frontend will be integrated to the EORI database. The trader’s UI to the EORI will be on the NSW. Each trader (entity) shall have a designated administrator that can approve and assign users to the trader. The NSW will employ a registration unit for vetting and administration.

NSW shall support a configurable user-defined time-period for which NSW registration is valid, and after which renewal of registration is required.

The registration service is enabling the user to perform the following tasks:

1. Creating and editing the trader and user profile and documents folder;

2. Attach supporting documents;

3. The information provided shall be verified and confirmed with the national business register;

4. Define additional users within the trader entity;

5. Nominating other users to act on behalf of the trader;

**NOTE**: UMS/EORI Systems are planned for 2024 and are not developed yet, until than UMS build in NSW should be used for registration.

The Registration module shall provide an email or text message, through the Notification Gateway, to the stakeholders notifying regarding their data migration into the NSW along with a temporary login access for verifying and updating their details in the NSW. For stakeholders without existing registration, the Registration module shall treat them as new registrants who need to apply via the online registration.

Furthermore, the Registration module shall allow for amendments, updates, renewal, and cancellation of the registration. The Registration module shall provide for the trade community stakeholder to register as entity or individual. The stakeholder shall register as an entity (“registered stakeholder”) or for an individual user (“registered person”), or as administrators of a registered user (“stakeholder administrator”), or employee of a registered stakeholder (“registered employee”).

It shall provide the NSW System Administrator to define and create categories of trade community stakeholders.

The Registration module shall cater for configurable data validation via validation rules form. In the data validation rules forms, the NSW Administrator can add and update validation rules to the grid, column, row, or cell. When rules are processed, they can change the color of cells, provide validation messages to users during data entry, and can change the promotional path for approval. The system should allow validation rules saved with versioning control.

The Registration module shall have interfaces with other ICT systems of government agencies for online data validations and verifications with business registry and citizen registry.

**1.2.4.3. Administration**

The Administration component supports the concept of distributed administration. With distributed administration means, an administrator has the authority to only manage users that belongs to a specific organization, CBRAs etc., and where one NSW Administrator will manage the CBRA administrators.

|  |  |
| --- | --- |
| ID | Description |
| FR460  Administration | The system must support the concept of distributed administration. With distributed administration means, an administrator has the authority to only manage users that belongs to a specific organization, CBRAs etc.  The system shall support the following principles:   * The main administrator can authorize administrator privileges to sub-administrator of users belonging to a specific organization. * A sub-administrator can be authorized to manage users in one organization. |

The NSW automate the following processes:

* Register Economic Operator
* Check Economic Operator Registration

**1.2.4.4. Register Economic Operator**

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*Figure* *5: BPMN Process Diagram: Register Economic Operator*

**Process Description***:* The purpose of this process is to check the EO registration via the NSW and register CA in the system. The process starts with receiving a request for usage of NSW system from Trader Portal, or a user admin can initiate the creation of new user. In the second case, the User Administrator fills in information regarding the Competent Authority. Then, the NSW performs technical validation of the request to use NSW. If the message is technically valid, the system sends request to Commercial Register and UMS to validate the EO and CA and receives information on validation. Then the NSW validates the information on Economic Operator and/or CA and takes decision on granting user permission. If the validation is positive, the system grants permission and notifies the EO. If the Response validation and criteria are not met, the NSW sends error notification for the request to use NSW. For CA, notification to UMS - User Management System for the new permissions and credentials are sent.

**Process Steps*:***

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Message Event | Request to Use NSW Received | The NSW system receives request to use NSW system from EO. |
| Start Event | Initiate Competent Authority Registration | Competent Authority Registration is initiated |
| User Task | Fill in Information regarding Competent Authority | The User Administrator fills in information regarding the Competent Authority |
| Service Task | Perform Technical Validation of the Request to Use NSW | The NSW performs technical validation of the request to use NSW. |
| Send Task | Send Request to Validate EO | If the technical validation of the request to use NSW is positive, the NSW checks with Commercial Register and UMS - User Management System to validate the Economic Operator and/or CA in order to grant permissions to the user. Replies are expected from both systems. |
| Message Event | Receive Information of Validation of EO | The NSW Receives information on performed validation from UMS and Commercial Register. The NSW receives also all data about the EO. |
| Service Task | Validate Information on EO and CA and take decision | The outcome of this validation can be positive and negative. The data of the EO are overwritten with the existing data. |
| Send Task | Notify EO of Request to Use NSW Error | If the validation of the information on EO received is not valid, the NSW system sends notification error on request to use NSW. |
| End Event | Request to Use NSW Error | Request to Use NSW Error |
| Service Task | Grant User Permission | If the validation is positive, the NSW grants user permission and rights for the local administrator. |
| Send Task | Notify for Permission and Credentials | Information to EO is sent for the permissions added for usage of NSW. Information is also sent to UMS in order to create the user. |
| End Event | Request to Use NSW Processed | Process to Request to Use NSW completed. |

**Functional Requirements:**

|  |  |
| --- | --- |
| ID | Description |
| FR5 | The NSW Operator/ administrator should be able to add a new CBRA to use NSW services and extend services similar to those of other agencies. |
| FR6 | Adding a new regulatory authority (and associated system interfaces), should be straightforward at the NSW side involving mainly configuration and data, not programming. |
| FR72 | The system must provide for migration of existing registration from CDEPS and EXIM. |
| FR73 | The system must allow for amendments, updates, renewal and cancellation of the registration. |
| FR74 | The system must provide a step-by-step guide for the potential users to complete the registration. |
| FR75 | The system must allow a user (trader, CBRA, information user) to complete the registration formalities without having to visit a government office. |
| FR76 | The system must provide the registrant to attach supporting documents in various formats (doc, pdf, jpeg, etc.) as required for registration under the respective category. |
| FR77 | The system must carry out simple validation, e.g., missing attachment for mandatory supporting document. |
| FR78 | The system must validate the necessary data for different data fields as defined. |
| FR79 | The system must not allow the registrant to proceed to the next step if the validation rules fail, with a display of appropriate error messages. |
| FR81 | The NSW system must cater for configurable data validation via validation rules form. |
| FR82 | The NSW System Administrator can add and update validation rules to the grid, column, row, or cell. |
| FR83 | When rules are processed, the affected fields can change the color of cells, and provide validation messages to users during data entry, and can change the promotional path for approval. |
| FR84 | NSW must save validation rules with the versioning controls. |
| FR85 | The NSW must have interfaces with other ICT systems of Government Agencies for data validation (e.g., other customs systems, Business Identification Number and civil identity registers). |
| FR86 | NSW System must provide the NSW System Administrator to define and create access for all CBRA agencies. |
| FR87 | The initial set up for the Regulatory Authorities Stakeholders shall provide for migration of existing Customs/CBRA user registration from existing systems. |
| FR88 | In case of CBRA user registration data found in other existing systems, the Stakeholders Registration functionality shall also cater for migration from these systems. |
| FR89 | For each CBRA registrant, the NSW system must provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. |
| FR92 | The NSW System functionality must provide the NSW System Administrator to define and create categories of Information Services Consumers/users. |
| FR93 | The NSW System must provide these as new Information Services Consumers registrants to apply via an online registration. The system shall allow for amendments, updates, renewal and cancellation of the registration. |
| FR94 | The NSW System must provide an email/ text messages to the Information Services Consumers registrant notifying regarding their data migration in NSW along with a temporary login access for verifying and updating their details. |
| FR95 | For each Information Services Consumers registrant, the NSW System shall provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. |
| FR96 | The NSW system functionality must cater for above-mentioned functions required of registration of regulatory authorities’ users as similarly required for registration of Information Services consumers/users, as appropriate. |
| FR97 | The NSW system must cater for the NSW Operator to manage and administrate all registrants, including providing configurable rules to set, for e.g., time validity, cancellation or blocking of any registered user, person, employee, stakeholder administrator and CBRA user. |
| FR98 | The NSW system must support the grouping of users into named groups. A user’s group can contain either a list of users or groups or a combination of these two. |
| FR99 | The NSW system must support distributed administration meaning that a NSW system administrator has the authority to manage only users that belongs to a specific grouping or organization, etc. |
| FR100 | The principal NSW system administrator can authorize administrator privileges to sub administrators of users belonging to a specific grouping or organization. An NSW sub administrator can be authorized to manage users in more than one group or organization. |
| FR101 | The NSW System must provide a configurable notification service to be set up by the NSW system administrator, to provide notification message to the registrant. Upon approval, the successful stakeholder shall be provided a registration number as well as the associated QR code for each registered stakeholder, person, employee, and stakeholder administrator, for subsequent login purposes. |
| FR102 | For each registered user the NSW system shall provide the system administrator to define the maximum number of employees authorized as NSW users under the entity. The defined number shall be configurable by the NSW System Administrator. |
| FR103 | The NSW System must provide for a configurable workflow to facilitate processing of the registration by the NSW Operator, with the final approval to be provided by an appropriate competent authority. |
| FR104 | The NSW system must support grouping privileges into named privilege groups. A privilege group can contain either a list of privileges or privilege groups. The system must enable a user’s privileges to be expressed either as a list of individual privileges and/or as a list of privileges groups. |
| FR175 | The online registration is web based and will include validations of references. |
| FR491 | The User Administrator must be able to fill in information regarding Competent Authority. |
| FR492 | The system must be able to Perform Technical Validation of the Request to Check EO and/or CA Registration. |
| FR493 | The system must be able to send request to UMS and Commercial Register to validate EO and/or CA. |
| FR494 | The NSW must be able to Validate Information on EO and/or CA. |
| FR495 | The NSW system must be able to take decision to grant user permission. |
| FR496 | The system must be able to Notify EO of Check Registration Error. |
| FR497 | The system must be able to Grant User Permission for use of NSW. |
| FR498 | The system must be able to Notify EO and/or UMS for granted Permission and Credentials. |
| FR526 | The system must be able to export all EO and CA in order to be migrated to UMS/EORI (when the system is developed). |

**1.2.4.5. Check Economic Operator Registration**

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*Figure 6: BPMN Process Diagram: Check Economic Operator Registration*

**Process Description***:* The purpose of this process is to check the EO registration via the NSW and register CA in the system. The process starts with receiving a request for usage of NSW system from Trader Portal, or a user admin can initiate the creation of new user. In the second case, the User Administrator fills in information regarding the Competent Authority. Then, the NSW performs technical validation of the request to use NSW. If the message is technically valid, the system sends request to EORI and UMS to validate the EO and CA and receives information on validation. Then the NSW validates the information on Economic Operator and/or CA and takes decision on granting user permission. If the validation is positive, the system grants permission and notifies the EO. If the Response validation and criteria are not met, the NSW sends error notification for the request to use NSW. For CA, notification to UMS - User Management System for the new permissions and credentials are sent.

**Process Steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start event | Request to Use NSW Received | The NSW system receives request to use NSW system from EO. |
| Start event | Initiate Competent Authority Registration | Competent Authority Registration is initiated. |
| User Task | Fill in Information regarding Competent Authority | The User Administrator fills in information regarding the Customs Authority. |
| Service Task | Perform Technical Validation of the Request to Use NSW | The NSW performs technical validation of the request to use NSW. |
| Send Task | Send Request to Validate EO and CA | If the technical validation of the request to use NSW is positive, the NSW checks with EORI and UMS - User Management System to validate the Economic Operator and/or CA in order to grant permissions to the user. Replies are expected from both systems. |
| Message Event | Receive Information of Validation of EO and CA | The NSW Receives information on performed validation from UMS, EORI. The NSW receives also all data about the EO. |
| Intermediate message event | Receive Information of Validation of EO and CA | The NSW Receives information on performed validation from UMS, EORI. |
| Service Task | Validate Information on EO and CA and take decision | The received response is validated. The outcome of this validation can be positive and negative. |
| Send Task | Notify EO of Request to Use NSW Error | If the validation of the information on EO received is not valid, the NSW system sends notification error on request to use NSW. |
| Service Task | Grant User Permission | If the validation is positive, the NSW grants user permission and rights for the local administrator. |
| Send Task | Notify for Permission and Credentials | Information to EO is sent for the permissions added for usage of NSW. Information is also sent to UMS in order to create the user. |
| End Event | Request to Use NSW Processed | Process Request to Use NSW Completed. |

**Functional Requirements*:***

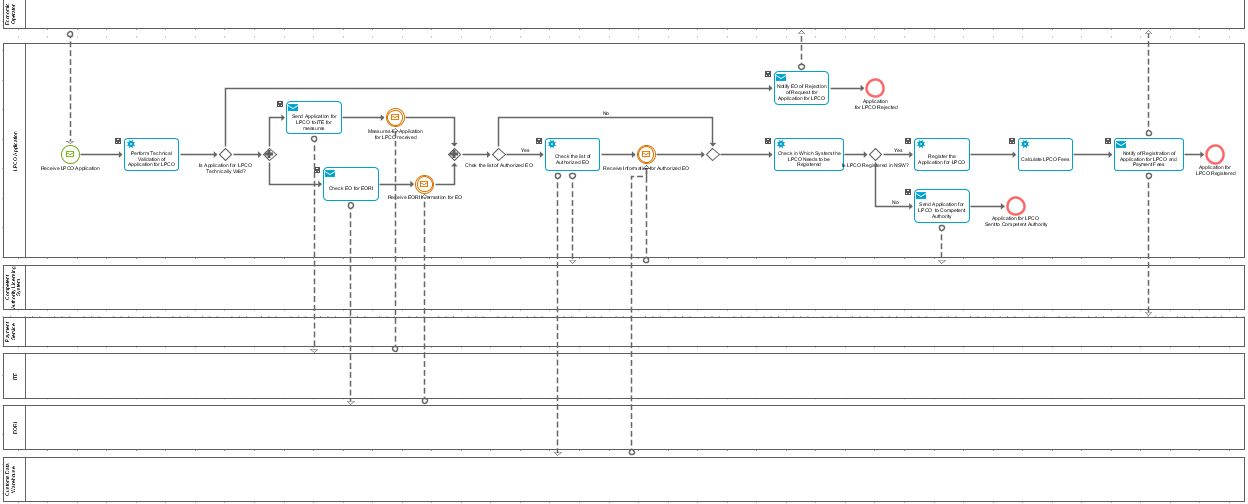
| **ID** | **Description** |
| --- | --- |
| FR78 | The system must validate the necessary data for different data fields as defined. |
| FR79 | The system must not allow the registrant to proceed to the next step if the validation rules fail, with a display of appropriate error messages. |
| FR81 | The NSW system must cater for configurable data validation via validation rules form. |
| FR82 | The NSW System Administrator can add and update validation rules to the grid, column, row, or cell. |
| FR83 | When rules are processed, the affected fields can change the color of cells, and provide validation messages to users during data entry, and can change the promotional path for approval. |
| FR84 | NSW must save validation rules with the versioning controls. |
| FR85 | The NSW must have interfaces with other ICT systems of Government Agencies for data validation (e.g., other customs systems, Business Identification Number and civil identity registers). |
| FR86 | NSW System must provide the NSW System Administrator to define and create access for all CBRA agencies. |
| FR89 | For each CBRA registrant, the NSW system must provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. |
| FR92 | The NSW System functionality must provide the NSW System Administrator to define and create categories of Information Services Consumers/users. |
| FR93 | The NSW System must provide these as new Information Services Consumers registrants to apply via an online registration. The system shall allow for amendments, updates, renewal and cancellation of the registration. |
| FR94 | The NSW System must provide an email/ text messages to the Information Services Consumers registrant notifying regarding their data migration in NSW along with a temporary login access for verifying and updating their details. |
| FR95 | For each Information Services Consumers registrant, the NSW System shall provide for the user’s role to be defined so that appropriate user access authentication and authorization shall be accorded. |
| FR97 | The NSW system must cater for the NSW Operator to manage and administrate all registrants, including providing configurable rules to set, for e.g., time validity, cancellation or blocking of any registered user, person, employee, stakeholder administrator and CBRA user. |
| FR98 | The NSW system must support the grouping of users into named groups. A user’s group can contain either a list of users or groups or a combination of these two. |
| FR99 | The NSW system must support distributed administration meaning that a NSW system administrator has the authority to manage only users that belongs to a specific grouping or organization, etc. |
| FR100 | The principal NSW system administrator can authorize administrator privileges to sub administrators of users belonging to a specific grouping or organization. An NSW sub administrator can be authorized to manage users in more than one group in the same organization. |
| FR101 | The NSW System must provide a configurable notification service to be set up by the NSW system administrator, to provide notification message to the registrant. Upon approval, the successful stakeholder shall be provided a registration number as well as the associated QR code for each registered stakeholder, person, employee, and stakeholder administrator, for subsequent login purposes. |
| FR102 | For each registered user the NSW system shall provide the system administrator to define the maximum number of employees authorized as NSW users under the entity. The defined number shall be configurable by the NSW System Administrator. |
| FR103 | The NSW System must provide for a configurable workflow to facilitate processing of the registration by the NSW Operator, with the final approval to be provided by an appropriate competent authority. |
| FR104 | The NSW system must support grouping privileges into named privilege groups. A privilege group can contain either a list of privileges or privilege groups. The system must enable a user’s privileges to be expressed either as a list of individual privileges and/or as a list of privileges groups. |
| FR135 | The CBRA staff can check the trader information by viewing the profile of a registered user via the Registration functionality. CBRA staff can also view the related cargo information for selected application or the issued LPCO. |
| FR156 | NSW Portal must provide for the NSW Operator to assign a CBRA administrator as per request from the CBRA. |
| FR157 | The CBRA administrator must be able to create CBRA user access with specific roles of verifiers, supervisors, inspectors, approvers as required by the CBRA. The CBRA administrator can assign multiple roles to a user. |
| FR175 | The online registration is web based and will include validations of references such as LPCO document number/code, for example country codes, currency etc. |
| FR491 | The User Administrator must be able to fill in information regarding Competent Authority. |
| FR492 | The system must be able to Perform Technical Validation of the Request to Check EO and/or CA Registration. |
| FR496 | The system must be able to send request to UMS and EORI to validate EO and/or CA. |
| FR494 | The NSW must be able to Validate Information on EO and/or CA. |
| FR495 | The NSW system must be able to take decision to grant user permission. |
| FR496 | The system must be able to Notify EO of Check Registration Error. |
| FR497 | The system must be able to Grant User Permission for use of NSW. |
| FR498 | The system must be able to Notify EO and/or UMS for granted Permission and Credentials. |

**1.2.5. NSW LPCO Application Submission Module**

The NSW automate the following process:

* Submit Application for Issuing a Certificate
* Submit declaration/application using the integrated data set for customs and non-customs formalities

**1.2.5.1. Submit Application for Issuing a Certificate**

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*Figure 7: BPMN Process Diagram: Submit Application for Issuing a Certificate*

**Process Description*:*** This process is the first step in the application and issuing of LPCO. In this process application for the LPCO is received from Economic Operators (EO), or a request with integrated data set can be received. The application for the LPCO is received for all LPCOs, even the processing of the application is processed in other systems where a governmental agency is managing the issuing of the LPCOs. After the receiving the application, technical validation is performed on the application for LPCO. If the application for LPCO is not technically valid, the NSW System will reject the application and inform the EO. If the technical validation is valid, the NSW System checks if the application should be processed in NSW or in other system. If the issuing of the LPCO is to be performed in NSW, it registers the application and notifies of the registration and payment fees. If other governmental agency is to perform the issuing of the LPCO in their own system, then the application is sent to the appropriate system. Before sending the application, the NSW System transforms the data using the transformation tables and sends the application to the other governmental system.

***Process Steps:***

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start event | Receive LPCO Application | The NSW system receives request from EO for application for the LPCO. The application for the LPCO is received for all LPCOs, even the processing of the application is processed in other systems where a governmental agency is managing the issuing of the LPCOs. The message also might contain the proof for paid fees and charges. Also, a flag (yes/no) for printing the pdf of the LPCO is received. |
| Service Task | Perform Technical Validation of Application for LPCO | After the receiving of the application, the NSW is performing technical validation of the application for LPCO. |
| Send Task | Notify EO of Rejection of Request for Application for LPCO | If the check of Application for LPCO is not technically valid, the NSW system informs the Economic Operator that the request for application for LPCO is rejected. |
| End event | Application for LPCO Rejected | The application is rejected. |
| Send Task | Send Application for LPCO to ITE for Measures | The system sends the Application for LPCO for measures for the goods to ITE (TARIC). |
| Message Event | Measures for Application for LPCO received | The NSW system receives measures from ITE (TARIC) for the application for the LPCO |
| Send Task | Check EO in EORI | The Economic Operator from the application for the LPCO is checked with EORI system. |
| Message Event | Receive EORI Information for EO | Information for the EO from EORI is received. |
| Send Task | Check the list of Authorized EO | The NSW system checks the list of authorized EO provided by the CBRA's. |
| Service Task | Check in Which System the LPCO Needs to be Registered | If the technical validation is ok, the NSW System checks if the application should be processed in NSW or in other system. |
| Service Task | Register the Application for LPCO | If the LPCO issuing is to be performed in NSW, the status of the application is registered. |
| Service Task | Calculate LPCO Fees | The NSW system calculates the LPCO fees. |
| Service Task | Notify of Registration of Application for LPCO and Payment Fees | The NSW System notifies the Economic Operator that the application for LPCO is registered and the Payment Service for the expected payment of fees/charges. |
| End event | Application for LPCO Registered | The application for LPCO is registered. |
| Send Task | Send Application for LPCO to Competent Authority | If other governmental agency is to perform the issuing of the LPCO, then the application is sent to that system. Before sending the NSW System transforms the data using the transformation tables and sends the application to the other governmental system. |
| End Event | Application for LPCO sent to Competent Authority | The application is sent to the Competent Authority. |

**Functional Requirements:**

| **ID** | **Description** |
| --- | --- |
| FR15 | The NSW shall provide for the NSW Operator, the configurable means to enforce control over which users can list/browse/view/edit/resubmit application and submission or lodgments - where a user could be a system or a person. |
| FR108 | The system must support the capture and configuration of supporting documentation (scanning, crop, resize, etc.) at the time of application creation. |
| FR110 | The System must support varied application forms and data sets for different CBRAs. |
| FR111 | The applicant must be able to:   * Create new online LPCO applications by copying from previous applications; * Check status of LPCO applications; and * Receive and reply queries from and to the relevant CBRA in relation to applications. |
| FR112 | The trader must be able to select type of LPCO, based on HS code, and apply using a form. |
| FR113 | The system must be capable to handle different application forms for different LPCO and for different issuing agencies. |
| FR114 | The Applicant (being a registered user) may submit his application via his registered employee or an agent subject to the online submission of a letter of authorization signed by the registered user. |
| FR115 | The Applicant must be able to pay any requisite LPCO fee online including the first-time application fee or any other fee specified to be payable, via the NSW System facilitated by the Payment functionality. |
| FR116 | The Applicant must be able to submit his retrospective application of LPCO. Under normal condition, the LPCO should be applied before the goods have arrived in the country. However, for some types of LPCO, the trader can apply for the LPCO after the goods have arrived in the country but before cargo clearance according to the practices of the concerned CBRAs. |
| FR117 | The Applicant shall be able to change or update the information submitted for an application earlier as well as the associated supporting documentation. There should be no limitations regarding adding new, updating existing or deletion of associated documentation prior to submission. The NSW System must ensure that only the originating applicant (or his authorized representative) can change/update the application. |
| FR118 | The NSW system shall provide functionality to submit LPCO applications with associated documentation. There should be no restriction regarding the format of the supporting documentation; it shall be possible to associate text documents, films, sound recordings, pictures, etc. |
| FR119 | The NSW System shall allow CBRAs to configure a list of pre-qualified prerequisite supporting document reference number (e.g., Import / Export Registration Number, etc.) to be checked by the NSW System automatically to facilitate the Applicant’s application. |
| FR120 | The System must provide functionality to view an application form with all associated documentation. |
| FR122 | The Applicant may submit the same set of application details for application of multiple number of the same type of LPCO. |
| FR123 | The Applicant may submit the same application for different types of LPCOs. |
| FR124 | The Applicant may submit application details for another LPCO in support of his application of the current LPCO. |
| FR125 | The System must conduct data validation and ensure valid and completeness of application, and then route the LPCO application with supporting documents uploaded by the applicant to the CBRA’s system, which shall respond with acknowledgment of receipt message. |
| FR127 | Upon approval, the system must compute the LPCO fees and charges (if any) and send a payment advice to the applicant, with a copy to update in the CBRA system. |
| FR138 | Based on pre-defined conditions for application approval, the NSW System must enable the CBRA workflow to assign different ranks of CBRAs to verify, process and approve the application accordingly. |
| FR167 | The NSW must give the user the possibility to find correct and valid certificate information for given HS codes. The output shall be result page containing one or more records of certificate types. A record shall consist of following attributes:   * Name; * Validity period; and * Description. |
| FR227 | The system must be able to compute all taxes, fees, fines, penalties, and charges based on computable parameters. It should also compute late payment fees, payable interest etc. |
| FR239 | The system must provide functionality to create a payment advice that contains all necessary information to conduct a payment and produce a receipt of the actual payment. |
| FR402 | The system must be able to perform technical validation of the application for LPCO. |
| FR403 | The system must be able to check where the LPCO need to be registered. |
| FR404 | The system must be able to Reject Application for LPCO. |
| FR405 | The system must be able to notify the Economic Operator that the request for application for LPCO is rejected. |
| FR406 | The system must be able to register, notify and share the application for LPCO and allocate unique number for application for LPCO. |
| FR407 | The system must be able to send application for LPCO to Competent Authority. |
| FR408 | The system must be able to Transform Data Using Transformation Tables. |
| FR409 | The system must be able to notify EO of the registration of the application for LPCO. |
| FR537 | The NSW system must be able to send the Application for the LPCO to ITE (TARIC) for receiving the measures for the goods for which the LPCO should be issued. |
| FR538 | The system must be able to send Economic Operator data to EORI for checks. |
| FR539 | The system must be able to check the list of authorized EO. |
| FR560 | The system must be able to notify Payment Service about expected payment of fees/charges and validate the availability of funds for certain method of payment (e.g. pay as you go). |

**1.2.5.2. Submit declaration/application using the integrated data set for customs and non-customs formalities**

**Process Objective:** A trader (or his representative) shall be able to submit an integrated data set as referred to in Article 13 (3) of Regulation 2022/2399 for establishing the EU Single Window Environment for Customs. An integrated data set is a set containing a common data set (set required for the customs declaration or re-export declaration and for the supporting documents required for non-customs formalities) and other CBRA's data set with data elements solely to national legislation other than customs legislation. Based on the information in the integrated data set, NSW should be able to create and send a request for issuing the LPCO to the appropriate CBRA. After receiving information about the issued LPCO from the CBRA, NSW should be able to update the information about the LPCO and send the declaration to the customs system. The modality of submission and processing of the integrated data set will be defined in the implementation phase**.**

This service manages the whole process and all interactions required and defined in the business processes.

***A screenshot of a computer

Description automatically generated***



*Figure 8: BPMN diagram of process: Submit declaration/application using the integrated data set for customs and non-customs formalities*

**Description**: The process covers the submission of the declaration and application for LPCO in one Information Exchange Message, where in the data set of the message it contains the data for both customs’ declaration and application for LPCO. The Information Exchange message is sent to Customs for the customs formalities (import, export, transit), after the processing of the application for LPCO is finished successfully in the NSW. The process uses the same flow as processes ‘Submit application for the issuing certificate’ and process the application by the CBRA and issue of a certificate’.

**Process steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Event | Receive Integrated data set for Customs and Non-Customs Formalities | The NSW system receives request for declaration for both customs and non-customs formalities. |
| Call Activity | Submit Application for the Issuing of Certificate | The task follows the steps included in the process Submit application for the issuing of the Certificate. |
| Call Activity | Process the application by the CBRA and issue of a certificate | The task follows the steps included in the process: Process the application by the CBRA and issue of a certificate. |
| Send Task | Send IEX15 to Customs Systems | The Information Exchange is sent to Customs for the customs formalities (import, export, transit). |
| End Event | Declaration with integrated data set processed | Declaration with integrated data set processed. |

**Functional Requirements:**

|  |  |
| --- | --- |
| **ID** | **Description** |
| FR183 | The declaration submission functionality must serve to provide for declaration with integrated set of data and transmit the completed declaration to the Customs declaration processing system that shall continue with declaration processing function. |
| FR474 | The system must be able to receive and process integrated data set. |
| FR475 | The system must be able to extract information which are relevant to the request for LPCO and to send it to the appropriate CBRA. |
| FR476 | The system must be able to update the customs data set with the information about the LPCO, and to send it to the Customs system. |

**1.2.6. LPCO Management**

All the document preparation is managed by the LPCO Management. The LPCO Management is responsible to provide a single repository of LPCO forms. The system is also responsible to handle the application and approval process of these documents. CBRA can access the LPCO applications and data through the LPCO Management service. CBRA users can review, update, and approve/reject LPCO.

The NSW supports the following services:

**1.2.6.1. Use of LPCO and Quantity Management**

**1.2.6.1.2. LPCO usage Service**

The LPCO usage service provides coordination among the government agencies. The concerned CBRA involved in the process will be notified in case there are actions required (e.g., a request to check LPCO availability, a request for LPCO usage, intervention information, goods clearance information, etc.), and the CBRA will provide their information results and/or quantity management outcomes.

Any inspections, whether related to an LPCO application or to a customs declaration, where several government departments are involved, will also need to be coordinated.

**1.2.6.1.3. LPCO usage Management**

Through the LPCO usage Management, the Customs Administration can exchange information with the authorized CBRA via NSW about the non-customs formalities (e.g., a request to check LPCO availability, a request for LPCO usage, intervention information, goods clearance information,) and NSW will inform the Customs Administration about the information results and/or quantity management outcomes.

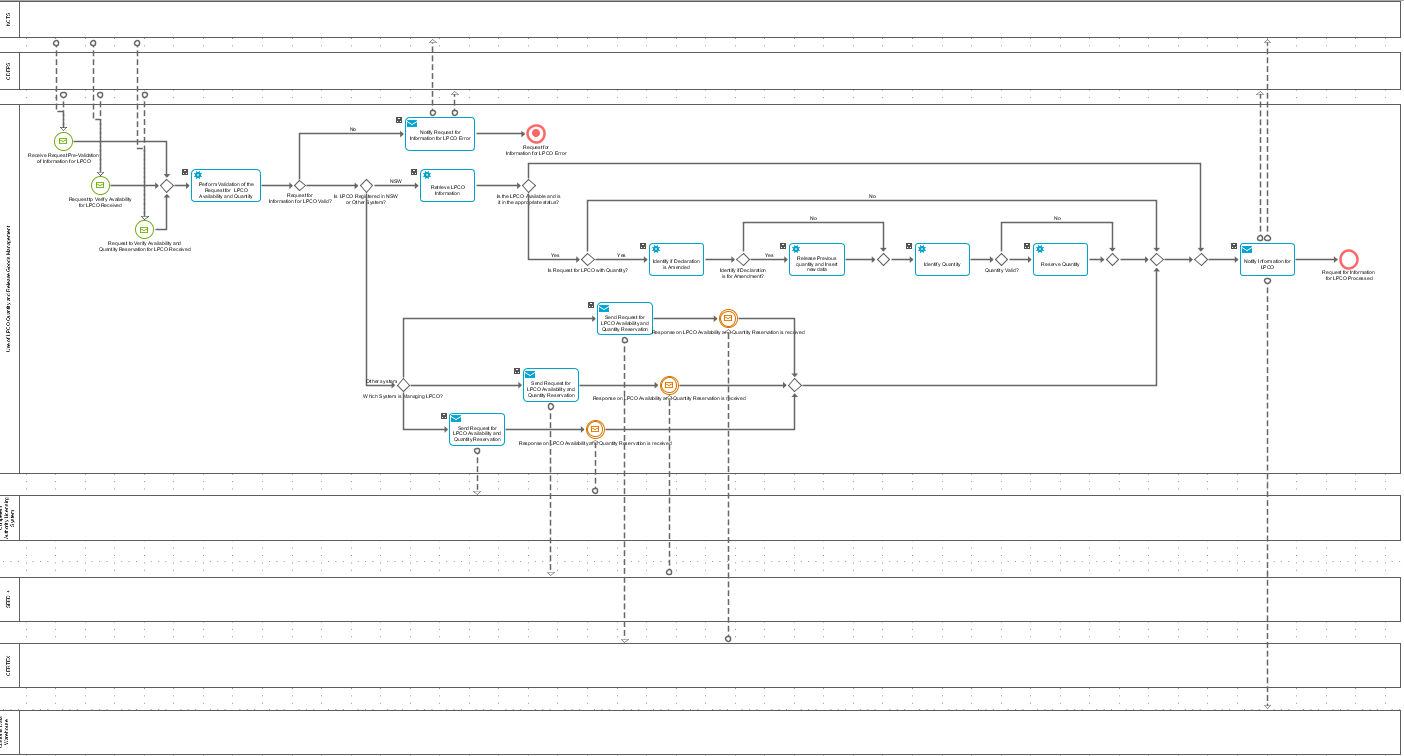
**1.2.6.1.4. Use of LPCO quantity and release goods Management**

The Use of LPCO quantity and release goods management module keeps track of the activities required by CBRAs regarding the request to check LPCO availability and/or the request for LPCO usage, intervention information and goods clearance information, ensuring that each CBRA provides their consent to the release of goods. It makes use of defined workflows within the workflow management.

The NSW will automate the following processes:

* Provide Information about the Availability and Quantity Reservation to Customs
* Register the Use of LPCO

**1.2.6.1.5. Provide Information about the Availability and Quantity Reservation to Customs**

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*Figure 10: BPMN Diagram of Process: Provide Information about the Availability and Quantity to Customs*

**Process Description**: The process starts with the Customs systems (CDPES and NCTS) are verifying:

* Pre-validation
* Availability
* Availability and Quantity of the LPCO.

The Customs Officer processing the custom declaration can check the LPCO availability. If there is need to also reserve the quantity, the flag for quantity is checked. When the message is received, the system first validates it technically, and then it checks if the LPCO is issued by the NSW or from other Competent Authority System. If is from other system, it sends IE to that system (competent authority licensing system, SEED+ and CERTEX) to check the availability and waits for the reply which is then sent to the Customs system (CDEPS or NCTS). If the LPCO was issued through NSW it retrieves the information, status and availability, and if the LPCO is not valid, sends back to Customs Systems that the LPCO is Not Valid with the reason. If everything is ok, it sends the availability info. If the request to check LPCO is also to reserve the quantity, the system identifies if the declaration is amended. If the declaration is for amendment, it releases the previous quantity and insert new data (if available). Then the system needs to identify the quantity, and if the quantity is valid, it reserves the quantity and notifies the information of LPCO to customs systems.

***Process Steps:***

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Event | Receive Request Pre-Validation of Information for LPCO | The request for Pre-Validation is received from Customs Systems. |
| Start Event | Request to Verify Availability for LPCO Received | A request for verifying Availability is received from Customs Systems. |
| Start Event | Request to Verify Availability and Quantity Reservation for LPCO Received | A request for verifying Availability and Quantity is received from Customs Systems. |
| Service Task | Perform Validation of the Request for LPCO Availability and Quantity | The task validates the technical and business validation for the request for pre-validation of Information for LPCO, availability and availability and quantity reservation. |
| Service Task | Retrieve LPCO Information | The NSW System retrieves the information for LPCO requested and identifies:   * LPCO availability * operational code of the certificate * appropriate status |
| Send Task | Notify Request for Information for LPCO Error | The task sends IE to Customs Procedure Systems. |
| End event | Request for Information for LPCO Error | Request for Information for LPCO Error processed. |
| Send Task | Send Request for LPCO Availability and Quantity Reservation | If the LPCO is to be issued in other system, NSW sends IE to that system to check the availability and quantity and waits for the reply which is then sent to the Customs system (CDEPS or NCTS). |
| Message Event | Response on LPCO Availability and Quantity Reservation is received | Response on the Request for the LPCO Availability and Quantity Reservation is received, from:   * Other Competent Authority Licensing Systems * SEED+ * EU CERTEX |
| Service Task | Identify if Declaration is Amended | If the request to check LPCO is to reserve the quantity, the system identifies if the declaration is amended. |
| Service Task | Release Previous quantity and insert new data | If the declaration is for amendment, the NSW releases the existing quantity reservation. |
| Service Task | Identify Quantity | The task identifies the quantity for LPCO, if the Quantities are Sufficient and a Reservation can be Made. |
| Service Task | Reserve Quantity | If the quantity is sufficient, the NSW reserves the quantity. |
| Send Task | Notify Information for LPCO | Notification for LPCO to the customs systems is sent for: pre-validation of information for LPCO, LPCO availability and quantity (CERTEX Information Results codes should be used). |
| End Event | Request for Information for LPCO Processed | Request for information of LPCO completed. |

**Functional Requirements:**

| **ID** | **Description** |
| --- | --- |
| FR459 | The system must be able to perform validation of the request for LPCO for availability and/or quantity reservation. |
| FR433 | The system must be able to retrieve information of LPCO. |
| FR434 | The system must be able to identify the availability of the LPCO. |
| FR435 | The system must be able to identify the status for a given LPCO. |
| FR464 | The system must be able to request (send message) to other Competent Authority License Systems, where the LPCO was issued and availability and quantity reservation will be managed in those systems. |
| FR465 | The system must be able to send Message to SEED+ to check the LPCO Availability and Quantity reservation. |
| FR466 | The system must be able to send Message to EU CERTEX to check the LPCO Availability and Quantity reservation. |
| FR467 | The system must be able to identify if the request for LPCO availability and quantity reservation is for amended declaration. |
| FR468 | The system when declaration is amended, must release the existing quantity reservation. |
| FR469 | The NSW must be able to record the quantity for Use of LPCO. For amended declaration, new quantity is entered. |
| FR470 | The system must be able to identify quantity from request for LPCO availability and quantity reservation, if the quantities are sufficient and a reservation can be made. |
| FR471 | The system must be able to reserve quantity for request for LPCO quantity reservation. |
| FR472 | The system must be able to notify Customs Declaration Processing Systems (CDEPS and NCTS) for information for LPCO |
| FR473 | The system must be able to notify Customs Declaration Processing Systems (CDEPS and NCTS) for errors. |

**1.2.6.1.5. Register the Use of LPCO**

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*Figure 9: BPMN Process Diagram: Register the Use of LPCO*

**Process Description***:* The process covers the Registration of the usage of the LPCO. The Goods Clearance Information is received from Customs Systems (NCTS and CDEPS), as well as information for intervention can be received. The system performs technical validation of the message. If the message is not techically valid, it send error message to the Customs Systems. If the message is technically valid, the system checks if the LPCO was issed by the NSW or by other systems. If it is issued by other systems, it sends the information and expects the outcome. If it is issued by NSW, then it retrieves the information from Data Warehouse and checks if it is to write-off, to cancel quantity reservation or to process information. The Quantity Management Outcome is sent to Customs Systems, Data Warehouse.

**Process Steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Event | Goods Clearance Information Received from NCTS | Message for Goods Clearance Information is received from NCTS. |
| Start Event | Intervention Message From NCTS Received | Intervention Message is received from NCTS. |
| Start Event | Goods Clearance Information Received from CDEPS | Message for Goods Clearance Information is received from CDEPS. |
| Start Event | Intervention Message from CDEPS Received | Intervention Message is received from CDEPS. |
| Service Task | Perform Technical Validation on Goods Clearance Information or Intervention Message | The system performs technical validation of the message received from NCTS and CDEPS for Goods Clearance and Intervention. |
| Send Task | Notify Technically Not Valid Message | The system notifies the customs system for the technically not valid message. |
| End Event | Technical Message Error | Technical Message Error. |
| Service Task | Retrieve LPCO Information | The NSW System retrieves the information for LPCO requested and identifies: - LPCO availability- appropriate status. |
| Service Task | Process Intervention | The system process intervention when information is received from Customs system, There are three possibilities:  01-Force write-off (if the goods have been released without previous reservation (positive outcome),  02 – Amend write-off (if the data in the declaration have been amended after the release of the goods)  03 – Delete write-off (if the declaration was invalidated after the release of the goods). |
| Service Task | Cancel Quantity Reservation for LPCO | The system cancels the reservation as information received from the customs systems states that the goods were not released. |
| Service Task | Write-Off Quantities for LPCO | The system write-off the quantity reservation for LPCO. |
| Send Task | Notify Goods Clearance or Intervention Information to EU CERTEX | The system sends message to EU CERTEX message for the goods clearance or intervention. |
| Message event | Quantity management outcome received by EU CERTEX. | The system receives Quantity management outcome received by EU CERTEX |
| Send Task | Notify Goods Clearance or Intervention Information to Competent Authority Licensing System | The system sends message to other Competent Authorities Licensing systems message to record the goods clearance or Intervention. |
| Message event | Quantity management outcome received by Competent Authority Licensing System | The system receives Quantity management outcome received by Competent Authority Licensing System. |
| Send Task | Notify Goods Clearance or Intervention Information To SEED+ | The system sends message to SEED+ message to record the goods clearance or intervention. |
| Message event | Quantity management outcome received by SEED+ | The system receives information Quantity management outcome received from SEED+. |
| Send Task | Notify Quantity Management Outcome | The system notifies the outcome of the quantity management after receiving the information for the goods clearance or intervention. |
| End Event | Goods Clearance or Intervention Processed | The end event for the processing either the Goods Clearance or the Intervention. |

**Functional Requirements:**

| **ID** | **Description** |
| --- | --- |
| FR106 | The NSW System shall establish a database of LPCO applications. For each LPCO application form, the list of Tariff codes that can be selected by Applicant will be linked to the form. |
| FR120 | The NSW System shall provide functionality to view an application form with all associated documentation. |
| FR155 | The trader shall be able to upload LPCOs issued abroad into the NSW. |
| FR158 | The CBRA administrator shall be able to record the following SLAs:   * Duration to process will be measured as from time when complete application has been submitted until CBRA has issued rejection or approval for application; * No. of hours or days to complete processing of inspection; * Time to complete will be measured as from time when Customs submits request to CBRA for cargo inspection and time when inspection results are entered on NSW; and * SLAs shall be entered for each LPCO for which CBRA is responsible. |
| FR169 | Provide the user with information from the goods nomenclature so classification of the goods to import/export can be done correctly. This functionality shall be accessible through a web-based interface where the user can browse the goods nomenclature tree. The output of this operation shall be a result page containing a tree structure of nomenclature data that reflects the relationship between codes in the goods nomenclature.  Following data shall be presented on all levels in the tree structure:   * Goods nomenclature code; and * Goods nomenclature code description. |
| FR170 | The NSW must provide the user with classification notes so the classification of goods to import / export will be correct. This functionality shall be accessible through a web-based interface where the user can execute queries in the system. This means that not only the nomenclature but also the section, head notes and the Commentary Notes should be available in NSW.  The output shall be text with instruction how to classify the goods on different level of granularity. |
| FR173 | Provide the user with the possibility to validate a customs declaration sub item so that all required documents, measurement units etc. are known before submitting a declaration. The output shall be a result page containing following information:   * Fault codes indication usage of non-valid data; * List of missing document codes; and * List of missing measurement units. |
| FR177 | For every consignment of import/export, a unique consignment reference (UCR) number shall be generated by the NSW system compliant with ISO 15459 specifications or accept compliant UCRs supplied by the trader. Once submitted, an auto-generated UCR shall be created which shall then be used for tracking the status of the consignment till its release. The system will have provision to create the UCR at a very early stage of the international trade. |
| FR153 | For those LPCO that will only be issued by paper, a notification shall be issued to the Applicant upon successful application and payment. The LPCO shall be obtained at the counter of the CBRA. A QR code shall also be included in LPCO issued on paper. The requirement of the QR code is the same as that included in LPCO issued electronically. |
| FR442 | The system must be able to perform technical validation on the message received for goods clearance from customs systems. |
| FR443 | The system must be able to perform technical validation on the message received for intervention from customs systems. |
| FR444 | The system must be able to notify customs system for technically not valid message. |
| FR433 | The system must be able to retrieve information of LPCO. |
| FR434 | The system must be able to identify the availability of the LPCO. |
| FR435 | The system must be able to identify the status for a given LPCO. |
| FR449 | The system must be able to process intervention:  01-Force write-off (if the goods have been released without previous reservation (positive outcome)),  02 – Amend write-off (if the data in the declaration have been amended after the release of the goods)  03 – Delete write-off (if the declaration was invalidated after the release of the goods). |
| FR450 | The system must be able to cancel quantity reservation for LPCO. |
| FR451 | The system must be able to write-off quantity reservation for LPCO. |
| FR452 | The system must be able to send message to EU CERTEX message for the goods clearance. |
| FR453 | The system must be able to send message to EU CERTEX message for the intervention. |
| FR454 | The system must be able to send message to other Competent Authorities Licensing systems message for the goods clearance. |
| FR455 | The system must be able to send message to other Competent Authorities Licensing systems message for the intervention. |
| FR456 | The system must be able to send message to SEED+ message for the goods clearance. |
| FR457 | The system must be able to send message to SEED+ message for the intervention. |
| FR458 | The system must be able to notify the customs systems data warehouse for the outcome of the quantity management outcome for the clearance of the goods or intervention. |

**1.2.7. NSW Payment Management Component**

The Payment component responsibility is divided into two major parts; manage payments in the NSW and integrate to the Payment Gateway to conduct the actual payments.

The system is a web-based system, where the users of NSW can conduct payments between each other. The following are the main functionalities of the system:

* Handle payment advices;
* Handle receipts for finalized payments;
* Conduct payments; and
* View/print unpaid and paid transactions.

The payment solution is designed to manage both the scenario where the actual payments are performed outside the NSW, and where payments are being performed through the NSW. In either scenario, the Payment component will keep track of what is paid and not paid through its internal ledger. In the frontend Payment service, authorized CBRA users can view payment details on performed and outstanding payments for the various transactions, per entity. The payment component should be a configurable module and must have the ability to manage, as minimum requirement, two types of payments: Fees (including administrative tax) related to issuing LPCO to CBRA and fees for use and maintenance of the NSW application.

Payment fees must be defined by CBRA’s. The NSW must have option to define payment fees for each CBRA and the supplier during the design phase must define with the agencies on the payments, terms, conditions and reconciliation related to the LPCO fees. The allocation of these fees must be designed into an administration module with parametric flexibility in order to control the amount of the fees. The fees for use and maintenance of the NSW will be administrated into a parametric manner and will interface with the accounting systems of the CBRA’a that will manage the issuing of invoices, control and reporting. The list of current CBRA’s is listed under point 1.3.2.1.3. CBRA. Each of the CBRA have three (3) levels of automatization that need to be taken in consideration at the moment the administration function is developed:

Full automatized platform;

Semi-Automatized platform;

Manual Processing.

The payment component is integral to the system, as it should not only facilitate financial transactions but also offer reporting functionality. This reporting feature is vital for the CBRA’s or the EO to conduct thorough checks on payment advices. It enables the stakeholders to ascertain the status of each advice, whether it is marked as paid, unpaid, pending, exceeded, canceled, or other relevant classification.

***Steps for Payment:***

1. User needs to provide payment details in accordance to CBRA registration requirements:
2. On credit, subject to a financial guarantee if users have possibility to create guaranty in their systems, currently CDEPS have this possibility;
3. In advance on account;
4. Upon presentation of proof (e.g., payment reference number or scanned receipt).
5. CBRA or NSW takes payment (where payment has been automatically enabled);
6. CBRA or NSW confirm receipt of payment; and
7. NSW records payment and notifies user accordingly.

The NSW will keep track of all the payment information regarding payment advises, ledger, payments and payment orders. It is absolutely vital that the NSW keeps records of what should be paid and what has been paid, regarding what, by who and when.

The NSW support the following services:

**1.2.7.1. Payment Processing**

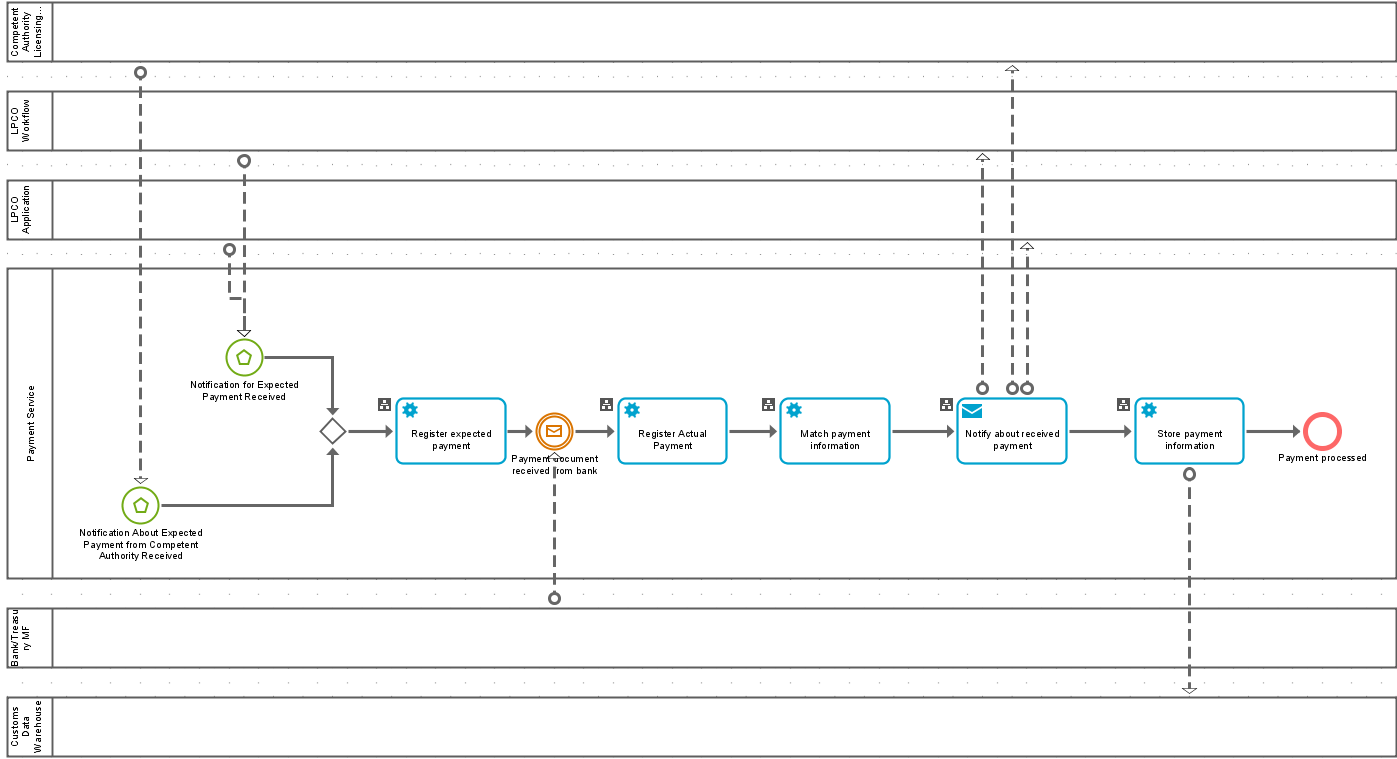
The trader must be able to pay fees, through the NSW in order to facilitate a smooth process. The payment services are used for issuing of LPCO and shall be processed electronically.

Payment fees must be defined by CBRA’s, the NSW must have option to define payment fees for each CBRA.

The NSW automate the following processes:

* Process Payment Request
* Check Payment Availability

**1.2.7.2. Process Payment Request**

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*Figure 11: BPMN Process Diagram: Process Payment Request*

**Process Description**: The process describes the payment mechanism at NSW for the purpose of managing administrative fees and taxes for the registration of users and required for the issuing of LPCOs and for inspections. Actual payments can be carried out through the payment gateway of the NSW or via other means at the disposal of the EO. Following the prior created payment advice, the payment service receives notification for expected payment from the LPCO Workflow Management and/or the LPCO Application module, or from the licensing systems from other CBRA’s if the LPCO is issued in the systems of the CBRA. The payment service should be able to receive request for cancelation of payment advice from the LPCO Workflow Management and/or the LPCO Application module, or from the licensing systems from other CBRA (e.g. in cases when the EO decides to withdraw his request for issuing a LPCO). The NSW will register the expected payment and will expect confirmation for payment from the bank/treasury. After the completed payment from the EO, the NSW system receives the information for the payment and must be able to confirm if the received information about the payment is to be accepted or rejected, based on predefined rules. If the information received matches the information in the previously received notification for expected payment, the system registers the payment and notifies the LPCO Workflow Management and/or the LPCO Application module or CBRA’s licensing systems. In cases, when the payment is accepted by the payment service, but it cannot be matched because of some mistake in the payment information, it should be possible appropriate changes to be made in the payment information in order the payment to be matched with the appropriate payment advice. In case of overpayment, the payment service should be able to receive a refund request and to re-send it to the treasury MF, with the amount to be refunded and the account to which the funds are to be refunded. A possibility for exchange of files/information for payments and returns with treasury MF must be taken in consideration. The refund request will be based on previously completed administrative procedure for approval of refund, which will take place outside the NSW.

***Process Steps:***

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Event | Notification About Expected Payment from Competent Authority Received | The payment service expects to receive information from the competent authorities about the payments that are due to it for the respective application for license, request, etc. or for the respective inspection. |
| Start Event | Notification for Expected Payment Received | The payment system will expect to receive information from the NSW about due payments for applications and inspections which are processed by the competent authorities at the NSW. |
| Service Task | Register expected payment | The payment service receives information from the LPCO Application/LPCO Workflow Management and competent authorities about payments which should be made so that the registration is completed, the LPCO is issued and/or the inspection is carried out. |
| Message Event | Payment document received from bank/treasury MF | The payment system will receive information about the payments made by the economic operator for the application or inspection. |
| Service Task | Register Actual Payment | The system receives information (incl. all payment details) about the payments and records it. |
| Service Task | Match payment information | The Payment Service will match the received payment with the expected one. |
| Send Task | Notify about received payment | The LPCO Application/LPCO Workflow Management receives information about the payment that is done and whether this payment is sufficient. |
| Service Task | Store payment information | The payment service submits the information of the payment to the data warehouse. |
| End Event | Payment processed | The payment system has processed and matched all payments and has sent the information to the competent authorities and the NSW. |

**Functional Requirements:**

| **ID** | **Description** |
| --- | --- |
| FR115 | The Applicant shall be able to pay any requisite LPCO fee online including any other fee specified to be payable, via the NSW System facilitated by the Payment functionality. |
| FR128 | Upon payment by the applicant, the NSW system must receive the payment confirmation from the bank/treasury MF via the NSW Payment functionality, and update this status to the CBRA system. |
| FR147 | The NSW System must provide functionality to collect, compile and send all necessary information needed to process a payment through a payment gateway. |
| FR149 | After successful LPCO processing, the NSW System shall prompt the applicant to pay the relevant fee for this LPCO prior to issuance. |
| FR150 | The applicant pays the fees and gets an acknowledgement from the NSW System. |
| FR159 | The CBRA must be able to indicate the following for each LPCO: amount of processing fee if applicable, amount of permit fee if applicable. In case any of these fees is to be determined on a case-by-case basis, CBRA administrator will mark this requirement and CBRA will compute fee based on specific content of LPCO application. |
| FR226 | The Payment functionality of NSW must be the single interface for all types of payments relating to the clearance of the consignment. |
| FR227 | The NSW system must be able to compute all taxes, fees, fines, penalties, and charges based on computable parameters. It should also compute late payment fees, payable interest etc, related to LPCO. |
| FR228 | On the Traders interface, the system must display all pending payment invoices/notices and allow the payments for each presented invoice/notice or as a lump sum amount. Upon executed online payment, this payment is confirmed at the CBRA’s / Customs Administration with exchange of files/information’s with Treasury MF. |
| FR229 | The NSW system must provide for the payer make the online payment using online banking modes. |
| FR230 | The NSW system must be able to connect to various interfaces, including payment gateway. |
| FR232 | The NSW system must allow the trader to deposit lump sum amounts against which payment payable amounts can be debited. |
| FR234 | The NSW system must allow the trader view both paid and unpaid amounts. |
| FR236 | The NSW System must capture granular details with regard to each payable amount. Details may include which transaction the payment pertains to. The amounts collected of duties taxes, fees and charges may be maintained according to the accounting heads defined by the government. |
| FR238 | The NSW system must be able to carry out payment reconciliation with banks. |
| FR239 | The system must provide functionality to create a payment advice that contains all necessary information to conduct a payment and produce a receipt of the actual payment |
| FR240 | The system must ensure that only the trader and the payee is associated to the created advice. |
| FR584 | The payment system must be able to register payments. |
| FR585 | The system must be able to store information about received payments. |
| FR586 | The payment system must be able to send payment details to the data store. |
| FR587 | The payment system must be able to receive payment details - amount and type of payment from the data store. |
| FR588 | The system must have the possibility to administrate the payments, match, un-match completed payments. |
| FR591 | The system must be able to allow payment advice to be cancelled. |
| FR592 | The system must be able to generate a request for refund by the CBRA’s and send the request information to the treasury. |
| FR593 | The system should allow generation of predefined rules, based on which the payment will be automatically accepted or rejected. |
| FR594 | The NSW payment component should be a configurable module which would have the possibility to compute the operational costs of the NSW (taking in account all customs declarations for all customs procedures) and the fees (including administrative tax) for issuing of LPCOs. |
| FR595 | The system must be able to allow the stakeholders to have access to all of its own payment advices, and to check the status of each advice, i.e. whether it is marked as paid, unpaid, pending, exceeded, canceled or other relevant information. |
| FR596 | The system must be able to allow possibility for exchange of files/information for payments and returns with treasury MF. |

**1.2.7.3. Check Payment Availability**

A diagram of a flowchart

Description automatically generated

**

*Figure 12: BPMN Process Diagram: Check Payment Availability*

**Process Description**: The process Check Payment Availability is when systems want to check if the payment is made (for single or more LPCO requests), and the request is received. The Payment Service is retrieving this information and sending back to the requestor.

**Process Steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start event | Check Payment Availability Received | Message with the request to check if payment is made (for single or more LPCO requests), is received. |
| Service Task | Register Check Payment Availability Request | The payment service registers the request for the payment availability. |
| Service Task | Retrieve Payment Information | The payment service is retrieving the payment information for the request payment. There are two possible outcomes, payment made and payment not found. |
| Service Task | Notify Payment Information | The payment service notifies the requestor for the payment availability. |
| End Event | Payment Availability Processed | The process to check payment availability finishes. |

**Functional Requirements:**

| **ID** | **Description** |
| --- | --- |
| FR522 | The system must be able to register the request (for single or more LPCO requests), to check the payment availability |
| FR523 | The system must be able to retrieve payment information. If the payment is found, the information is retrieved, if not, means the payment is not made. |
| FR524 | The system must be able to send notification with the payment information to the requestor. |

**1.2.8. Notification Management**

**1.2.8.1. Notification Gateway**

The NSW will have a technical Notification Gateway component which is responsible to handle the notifications to NSW users. The purpose of this component is to accomplish an effective single window solution where a user is notified of the relevant changes and does not have to manually check if something has changed every day.

The system shall enable the user to update individual notification settings.

The system must be able to send notifications via mail based on the user settings, but the system should be flexible so it can be extended to handle new type of communication channels for notifications in the future.

Since different users are going to have different preferences on how they want to be notified, the Notification Gateway component must be flexible in order to support the several different ways to be notified where the user can personalize the settings so he/she is notified the preferred way.

For the NSW user role:

* Administrate notification settings.

For the components generating notifications:

* Send notification.

| **ID** | **Description** |
| --- | --- |
| FR561 | The system must be able to handle notifications to NSW users for relevant changes |
| FR562 | The system must be able to configure the notifications for users and roles |
| FR563 | The system must be able to send notification via mail based on the user settings |
| FR564 | The system shall be able to send notifications via other channels in future |

**1.2.9. NSW LPCO Designer**

The system must have integrated functionality to efficiently create, customize, and manage digital certificates forms. LPCO designer must have separate environment and data storage for every CBRA.

LPCO designer must configure proactive notification alerts to promptly address any anomalies or potential delays encountered during the LPCO design process.

The LPCO designer must incorporate custom field definitions across an array of data types, including Integer, String, Data etc.

The LPCO designer interface must include the ability to establish data exchange mechanisms with reference data interfaces from other Cross Border Regulatory Agencies (CBRAs). This integration will facilitate the synchronization of critical data such as registered company and all other various registers. For example, some Traders are not allowed to request some LPCO if they are not registered in CBRA.

The LPCO designer must have option to define and exchange data from various registers in CBRAs.

The LPCO designer must provide a feature that enables the designation of mandatory documents for upload, tailored specifically to each country.

The LPCO designer should allow future changes e.g., updating or adding a new application of LPCO, this must involve configuration, not programming.

| **ID** | **Description** |
| --- | --- |
| FR565 | The system must be able to efficiently create, customize, and manage digital certificates forms. |
| FR566 | The system must be able to configure notification alerts to address any anomalies or potential delays encountered during the LPCO design process. |
| FR567 | The system must be able to incorporate custom field definitions across an array of data types, including Integer, String, Data etc. |
| FR568 | The system must be able to have the ability to establish data exchange mechanisms with reference data interfaces from other CBRAs. |
| FR569 | The system must be able to define and exchange data from various registers in CBRAs. |
| FR570 | The system must be able to enable the designation of mandatory documents for upload, tailored specifically to each LPCO. |
| FR571 | The system shall be able to allow future changes for updates (adding or modifying) applications for LPCO (in configuration, not programing). |

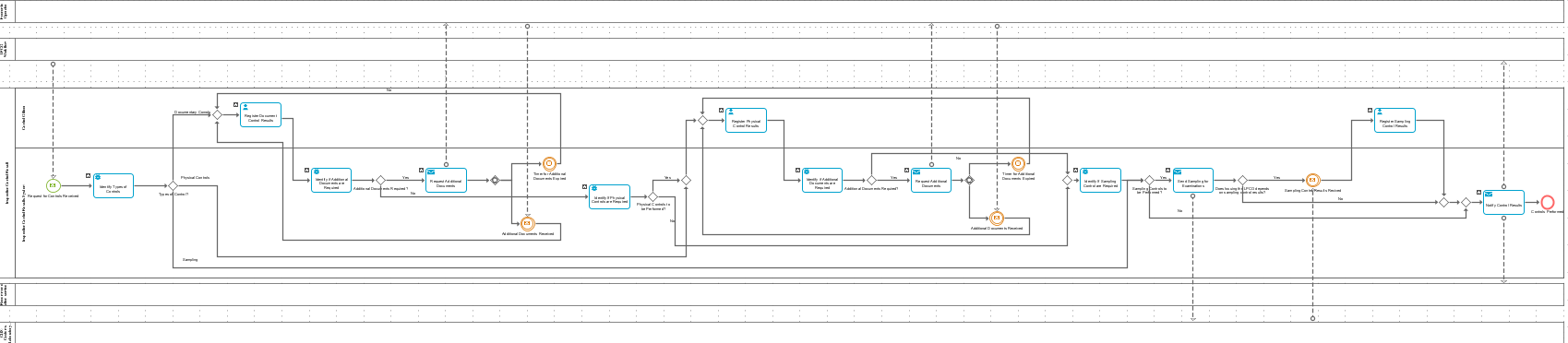
**1.2.10. Inspection Control Results**

The results (information) from the inspections must be stored and managed in the Inspection Control Results (ICR) component. The component must manage schedules, inspection orders, assignments, notification of the time and place, and report of inspection results.

The NSW will automate the following process:

* Register inspection control results

**1.2.10.1. Register Inspection Protocol Results**

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*Figure 13: BPMN Process Diagram: Register Inspections Protocol Results*

Within the process execution, the ICR must document the results of the controls provided by the Inspectors of the government agencies – documentary and/or physical and / or sampling control.

* Documentary Controls - The Inspector may perform documentary control based on the application received, including additional documents, which will be uploaded in the system. The Inspector can ask additional documents and explanation from the Economic Operator (EO). The Trader must provide the additional documents within the legally set time or the timer in the application will expire. The Inspector registers the control results.
* Physical Controls - The Inspector may perform physical control or ask for additional documents from the EO. After the timer has expired, or EO sends the additional documents, the Control Officer performs the physical control and register control results.
* Sampling - The sampling is taken and sent to laboratory for analysis. After the analysis from laboratory are received the Inspector registers the control results in the system. After performing the controls, the Inspector registers the control results, and the results are sent to LPCO Workflow and Data Warehouse. Mutual Controls are possible, as the request can be for different controls, and each type of control will cover the process.

**Process Steps**:

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Service Task | Identify Types of Controls | The NSW system receives the results of the risk analysis for the received application for LPCO or EO |
| User Task | Register Document Control Results | The Inspector will receive notification with information if additional controls are recommended from the results of the Risk Analysis and the Inspector must be able to register justification if he/she decides not to proceed. The Inspector must be able to register the Documentary Control Results. |
| Service Task | Identify if additional document are required | The system identifies if the Control Officer requested additional documents from the EO. |
| Send Task | Request Additional Documents | The system must be able send request to Economic Operator for Additional Documents. |
| Service Task | Register document control results | The system must register the documentary control results. |
| User Task | Register Physical Control Results | The Inspector must be able to register the control results in structured or unstructured form. |
| User Task | Identify If Sampling Control are Required | The Inspector must be able to register if there is a need for sampling. |
| User Task | Send Sampling for Examinations | The Inspector must be able to send electronically the Sampling support documents to the Laboratory Information System, if applicable. |
| User Task | Register Sampling Control Results | The Inspector must be able to register samples and the laboratory results. |
| Send Task | Notify Control Results | Sends information for the control results to the LPCO Workflow and Data Warehouse. |

***Functional Requirements:***

| **FR ID** | **Description** |
| --- | --- |
| FR597 | The ICR must be able to receive notification generated by the Risk management component about the recommended inspection control. |
| FR189 | The ICR must allow the Inspector manager to draft inspection schedules and notify the inspectors. |
| FR598 | The ICR must send the notification via the mobile app and/or email. The schedule must be captured in the calendar as well. |
| FR191 | The ICR must allow the inspectors to provide data inputs in structured form, but in detailed textual form as well, and to upload any relevant information to support their findings, including X-Ray scans, photos and documents directly through their smart phone, tablet or laptop/computer from the shed/examination yard. |
| FR192 | There should be no restrictions regarding the format of the associated documentation provided with an inspection order or inspection report; it shall be possible to associate text documents, videos, sound recordings, picture, etc. |
| FR521 | The system must be able to register the control results |
| FR525 | The system must be able to transmit control results to the DWH and/or other IT systems. |

**1.2.11.** **NSW** **Document and Content Management Component**

The NSW is providing e-services for trade and regulatory purposes. The NSW is closely dependent on and linked to the DMS and Content Management System, which provides the information’s, forms, and document management.

The system must enable the publishing of different types of content that includes webpages, electronic forms, documents, media and other rich web content.

The system must be capable of storing both structured and unstructured documents and associated metadata.

There should be no restriction regarding the format of the document to be stored; it shall be possible to store text documents, images, video, etc.

To support the delivering of trade information and NSW services, portal services are required. Portal services include services such as:

* Single Sign-On — the NSW supports SSO capabilities for the users. This requires a user to authenticate only once when using different services within the NSW and Customs;
* Integration — integration delivers the connection of functions and data from multiple systems in a single view. In the condensed view, the user can access data from multiple data sources and systems;
* Customizations — the users can perform some level of customization of their environment, without violating the principles and standards of the NSW. This includes adding, removing, and moving certain components on the user’s personal dashboard;
* Personalization — personalization is about matching content with the user profile. Based on the role, responsibilities and job function, personalization matches the services and content to the specific user. While customization is voluntary and based on the user preferences, personalization is based on policies and rules;
* Search — search creates the possibility to find structured and unstructured information in data-bases and documents using enterprise search provided by the DMS;
* Access Control — the ability for the portal to limit specific types of content and services users have access to. These access rights may be provided by a portal administrator or by a provisioning process. Access control lists manage the mapping between portal content and services over the portal user base; and
* Content publishing - Trade information is frequently published and updated on the NSW; the content publishing service is providing the publishing framework.

**1.2.11.1.** **NSW** **Document and Content Management Functional Requirements**

| **ID Number** | **Description** |
| --- | --- |
| FR193 | The CDWMS shall provide functionality to publish different types of content that includes eForms, documents, media and other rich web content. |
| FR194 | The CDWMS must be capable to store both structured and unstructured documents and associate metadata to the stored document. |
| FR195 | There should no restriction regarding the format of the document to be stored; it must be possible to store text documents, films, sound recordings, pictures, etc. |
| FR196 | The CDWMS must be able to store and manage several versions of the same document and provide traceability of versions. |
| FR197 | The CDWMS must be capable to handle multiple user requests of the same document and optimistic locking must be supported to ensure efficiency. |
| FR198 | The CDWMS must support designing and processing of e-forms. The e-forms shall be possible to link to a workflow for processing. |
| FR199 | It shall be possible to define a workflow for different document types enabling a pre-defined process to be executed when certain types of documents are stored, updated or deleted. A graphical user interface used when managing workflows should be provided. |
| FR200 | It shall be possible to define rules for the execution of the workflows. |
| FR201 | It shall be possible to perform free-text searches and searches based on metadata tags attached to the information stored in the repository. The search shall be supported using API or a user interface |
| FR202 | The CDWMS must support metadata (document attributes) to enable structured searches of documents. |
| FR203 | There should be no restriction in number of, size of and types of metadata to be associated to the stored documents. |

**1.2.12. LPCO Workflow Management**

The LPCO Workflow Management is a key component within the NSW. Workflow management is creating and optimizing the paths for data in order to complete tasks in a defined process. It will provide automation of the processes and be able to measure the performance of the process.

The system shall provide easy and intuitive facilities to define and adjust workflows for processing within and across concerned CBRAs for a particular trade transaction.

For example, some goods require LPCOs from more than one CBRA; in this case the NSW must control sequencing of delivery of LPCO applications to the concerned agencies in addition to the workflow for processing LPCOs within each CBRA.

It is preferred that the workflow definition process uses a graphical tool to identify the process steps, decision points, any parallelism, and sequencing.

It is required that the workflow so defined is used at run-time to steer the process.

It is required that workflow definitions are put under a version control scheme with a status. Old versions are retained and shown as decommissioned, and new versions proceed through the usual testing and deployment statuses.

The NSW must support configurable workflow, such that the CBRA System Administrator can reconfigure and redeploy the workflow definition for handling an application or submission. The configurable workflow must include but not limited to:

* Transformation and routing of a submission to multiple agencies;
* Manage the application process of LPCO
* Approve an application for LPCO
* Filtering (limiting) or transforming the data to only that which an agency is permitted to see;
* Routing of a response or update to multiple recipients as follows:

a) Routing that depends on submission or LPCO type;

b) Routing that depends on the contents of one or more elements in the message as defined by content-driven routing rules (e.g. procedure codes)/ service request codes;

c) Routing that depends on risk assessment where profiles or alerts indicate a message needs to be routed to a specified recipient; and

d) Routing that depends on the status updates or results of a previous stage in the processing.

Key functionalities include:

Agile process management – enabling flexible changes to the process;

1. Approval workflows – approval is an integral part of the NSW processes;
2. Automatic tasks assignments – automatic assignment to users, groups, and departments based on rules;
3. Automatic SLAs (due dates) – monitoring of agreed NSW SLAs;
4. Forms and tables – enabling data to be part of the process;
5. Team communications – the users shall be able to comment and attach files to the process;
6. Security and access control – it shall be possible to implement various levels of access controls;
7. Reports – Key Performance Indicator (KPI) reports and reports for auditing and traceability is presented using dashboards; and
8. Integrations – the workflow management is integrated through the integration management with other components such as the document management for storage of documents.
9. Workflow templates - By leveraging predefined templates, organizations should achieve greater efficiency and consistency in their operations. These templates serve as standardized workflows that can be utilized repeatedly, saving time and effort for teams involved in similar tasks.

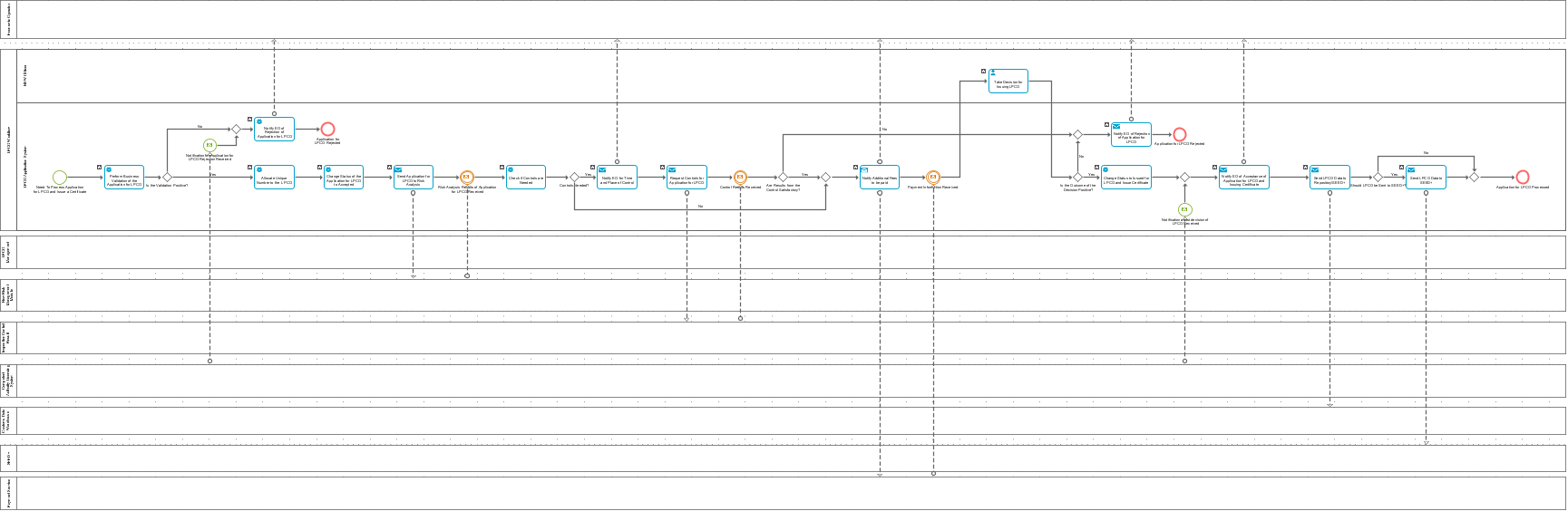
**1.2.12.1. Digital Signing and validation of signature**

The Digitals Signing and validation of signature should provide inbuilt support for digital signature and Public Key Infrastructure (PKI) based on industry standards, such as X509 v3.

The LPCO workflow Management will automate the following processes:

* Process the Application by the CBRA and Issuance of a Certificate
* Annulment of License, Permit, Certificate, and Other (LPCO)
* Withdrawal of Application
* Right to be Heard
* Register information for the issued LPCO by other countries through SEED + or Traces NT

**1.2.12.2. Process the Application by the CBRA and Issuance of a Certificate**





*Figure 14: Process Diagram: Process the Application by the CBRA and Issuance of a Certificate*

***Process Description:*** The process covers the issuing of a LPCO by New Single Window System (also covers the submission of the request using the integrated set of data ), including the receiving the issuing LPCO by other Competent Authority Licensing Systems and receiving issued LPCO by SEED+. The process starts with consultation of the module in TARIM for receiving the appropriate measure by tariff code ITE (TARIC) and Economic Operator Registration and Identification (EORI) for the EO data. It continues with performing Business Validation on the Application for the LPCO, verifying the rules, conditions of the data set and documents attached to the application for LPCO and information received from ITE and EORI. If the business validation is not positive, a rejection message is sent to the Economic Operator, including rejection message from other Competent Authority Licensing System and resend to the Economic Operator. If the Business Validation is positive, Unique Number LPCO is allocated, and the status of the application is changed to Accepted (LPCO not issued). The Application for LPCO is sent for Risk Analysis and Risk Analysis Results are expected. The process continues with checking if controls are to be performed. If the Controls are to be performed, the system informs the Economic Operator and message is sent to the Inspection Control Result system to perform the controls. The controls cover, documentary, physical and sampling controls, after which results are verified. If the results are not satisfactory, a rejection message is sent to the Economic Operator and process ends with rejection of the application for the LPCO. If the control results are satisfactory, or no controls are needed, the process continues with calculating additional fees and charges, if are needed to be paid. Then the New Single Window Officer taking a decision for issuing a LPCO. If the decision of the NSW Officer is negative, the Rejection notification is sent to the Economic Operator. If the decision is positive, the status of the Application for LPCO is changed to issued, and LPCO is issued. If the decision is positive or if a message that the LPCO is issued by other Competent Authority Licensing System is received, the process continues with generation of the LPCO and sending the LPCO issued to the Economic Operator. The LPCO is sent to the LPCO repository and if needed to Systematic Electronic Exchange of Data (SEED+). If LPCO issued by SEED+ is received, the information is stored in the LPCO repository.

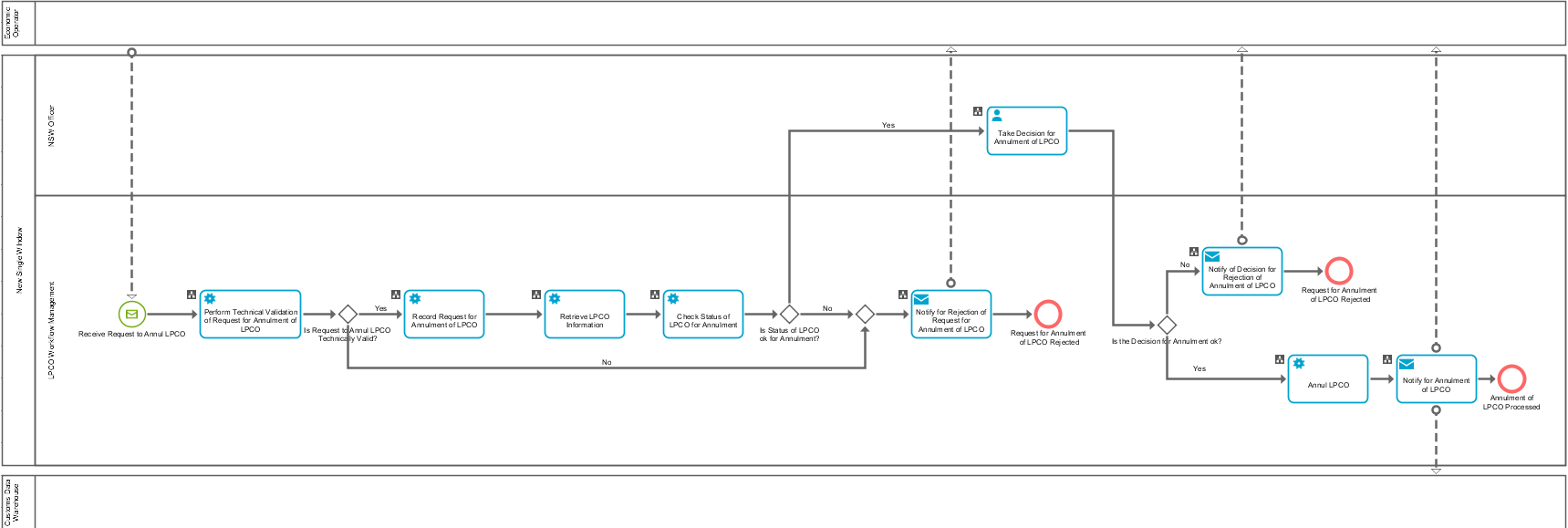
**Process Steps:**

|  |  |  |
| --- | --- | --- |
| **Step** | **Name** | **Description** |
| Start event | Need to Process Application for LPCO and Issue a Certificate | The start of the process is with the need to process the registered application for LPCO. |
| Service Task | Perform Business Validation of the Application for LPCO | The NSW performs Business validation of the application for LPCO with verifying the data of the fields if they comply with the rules and conditions, and that all documents are available for the LPCO. Furthermore, it checks the responses from ITE and EORI. |
| Message event | Notification for Application for LPCO Rejection Received | From Other Competent Authority Licensing System message can be received that an application for LPCO is rejected. |
| Send Task | Notify EO of Rejection of Application for LPCO | If the business validation has failed, the NSW system notifies the EO and the process ends. The status of the application for LPCO is rejected. If message for rejection of an application by other Competent Authority Licensing System is received, is also resent to the EO. |
| End event | Application for LPCO Rejected | Application rejected. |
| Service Task | Allocate Unique Number to the LPCO | If business validation is positive, the NSW allocates the unique number to the LPCO. |
| Service Task | Change Status of the Application for LPCO to Accepted | The NSW changes the status of the application to accepted. |
| Send Task | Send Application for LPCO to Risk Analysis | The system sends the Application for LPCO to Risk Analysis. |
| Message event | Risk Analysis Results of Application   for LPCO Received | The NSW system receives the results of the risk analysis for the received application for LPCO. |
| Service Task | Check if Controls are Needed | The NSW System checks if additional controls are recommended from the results of the Risk Analysis. |
| Service Task | Notify EO for Time and Place of Control | The NSW notifies the Economic Operator when and where the controls will take place.  There might be three types of controls:   * Documentary Control – all relevant documents are verified * Physical controls – where applicable, the goods are checked manually - sampling – where samples are taken, and laboratory analysis are conducted. * Also, coordinated controls should be organized if more than one CBRA is involved. |
| Service Task | Request Controls for Application for LPCO | The NSW system informs for Controls to be Performed for an application for LPCO. |
| Intermediate message event | Control Results Received | The NSW system receives the control results for the application for LPCO. The results can be in structured message with specified codes (such as A1, A2, B1, B2) indicating if discrepancies were found and in unstructured message where analysis are presented. |
| Send Task | Notify Additional Fees to be paid | The Tasks informs the EO and the Payment Service, for the additional fees, concerning controls that needs to be paid by the EO. |
| Intermediate Message Event | Payment Information Received. | Payment information is received from payment service. |
| Service Task | Take Decision for Issuing LPCO | The NSW Officer will take a decision to issue a LPCO based on the:   * Risk Analysis results * all available documents for the LPCO * Information in the Application for the LPCO * Control Results (if any) * Fees are paid. |
| Send Task | Notify EO of Rejection of Application for LPCO | The system notifies the EO of Rejection of Application for LPCO including the reasons for the rejection. |
| End Event | Application for LPCO Rejected | Application rejected. |
| Service Task | Change Status to Issued for LPCO and Issue Certificate | If the control results are satisfactory, the decision for approval of the application for LPCO is recorded and status of the LPCO is issued. The certificate is issued with unique LPCO number, validity period and official signature of the Competent Authority. |
| Start event | Notification about decision of LPCO Received | The NSW system receives a message with accepted application for LPCO and issued LPCO from other Competent Authority Licensing System. |
| Send Task | Notify EO of Acceptance of Application for LPCO and Issuing Certificate | The NSW system informs the EO that the status of the Application of LPCO is changed to accepted and the LPCO is issued and sent to EO. |
| Send Task | Send LPCO Data to Repository | The NSW system send LPCO data to the repository, including all relevant information of all certificates with all necessary information. |
| Send Task | Send LPCO Data to SEED+ | The NSW system send LPCO data to the SEED+, if the LPCO data should be send to SEED+. |
| End event | Application for LPCO Processed | Application processed. |

**Functional Requirements:**

| **ID** | **Description** |
| --- | --- |
| FR3 | NSW must allow the flexibility to add or change the  workflow and routing behavior for a transaction. |
| FR4 | The NSW Operator / administrator must be able to change the routing behavior and workflow/events associated for particular submission/lodgment types based on business rules. |
| FR119 | The System must allow CBRAs to configure a list of pre-qualified prerequisite supporting document reference number (e.g., Import / Export Registration Number, etc.) to be checked by the NSW System automatically to facilitate the Applicant’s application. |
| FR126 | The CBRA shall perform the processing of the LPCO application. The NSW shall receive status updates from the CBRA system and display to the trader UI. |
| FR127 | Upon approval, the system must compute the LPCO fees and charges (if any) and send a payment advice to the applicant, with a copy to update in the CBRA system. |
| FR128 | Upon payment by the applicant, the system must receive the payment confirmation from the bank via the NSW Payment functionality and update this status to the CBRA system. |
| FR129 | When the CBRA issues the electronic LPCO with the associated UCR, and send to the NSW System, which shall notify and relay to the applicant via the Trader UI. |
| FR131 | The CBRA staff shall receive an alert on pending LPCO application to be processed. |
| FR132 | The system must provide functionality for the appropriate staff of the CBRA to access the LPCO processing functionality to process, reject or approve an application. |
| FR133 | CBRA staff shall be able to provide comments/rationale for rejection of LPCO application. This information shall be made available to the applicant. |
| FR134 | When an application is approved, the system must provide the ability to archive the application so that it can be retrieved as required. |
| FR135 | The CBRA staff can check the trader information by viewing the profile of a registered user via the Registration functionality. |
| FR136 | The system must include all necessary workflow to support the acceptance, review, and authorization of LPCO applications. |
| FR138 | Based on pre-defined conditions for application approval, the system shall enable the CBRA workflow to assign different ranks of CBRAs to verify, process and approve the application accordingly. |
| FR139 | The system must enable to transfer of applications between CBRAs, dependent upon the associated business rules. The NSW System must provide the applicant with current information regarding the process status. |
| FR140 | The NSW system must provide functionality for one CBRA to participate in the approval process. |
| FR141 | The system must provide functionality for viewing an approved application, an LPCO, with all associated documentation. The NSW System must ensure that only authorized users can access the documentation. |
| FR142 | The CBRA staff must be able to approve or reject applications by validating the supporting documents and checking the content of the application. |
| FR143 | The system must provide for the CBRA staff to view and download the processing history of specified LPCO application. The sequence of actions taken by the applicant and the CBRA can be viewed and downloaded. |
| FR145 | The system must provide the function for the CBRA to notify the Applicant of the status and result of the application. The CBRA can input the applicable terms and conditions as part of the approval. |
| FR146 | The CBRA may view and download all outgoing correspondence related to LPCO application from the NSW System to the applicant. |
| FR147 | The system must provide functionality to collect, compile and send all necessary information needed to process a payment through a payment gateway. |
| FR148 | The system must provide functionality for an issuing CBRA to review an application and make comments and provide messages to the applicant. |
| FR149 | After successful LPCO processing, the system must prompt the applicant to pay the relevant fee for this LPCO prior to issuance. |
| FR152 | An electronic and digitally signed copy of the LPCO will be issued upon successful payment. The electronic copy of the LPCO in PDF format may be downloaded and printed by the Applicant if required. A QR code shall be included in the LPCO to allow both Applicant and Customs and border agency officers to use mobile phones, tablets and barcode scanner to scan the QR code and access the LPCO (in PDF format) stored in the LPCO functionality. |
| FR158 | The CBRA administrator shall be able to record the following SLAs:   * Duration to process will be measured as from time when complete application has been submitted until CBRA has issued rejection or approval for application; * No. of hours or days to complete processing of inspection; * Time to complete will be measured as from time when Customs submits request to CBRA for cargo inspection and time when inspection results are entered on NSW; and * Service Level Agreements (SLAs) shall be entered for each LPCO for which CBRA is responsible. |
| FR162 | The NSW must provide a feature where alerts can be sent to CBRA designated staff when (a) SLA for processing an application is exceeded or (b) SLA for inspection is exceeded. The NSW LPCO Portal shall enable CBRA supervisors to query performance of CBRAs in processing of LPCOs. Reports on CBRA performance of SLAs shall also be available. |
| FR188 | The Inspection/Examination functionality shall provide CBRA user interfaces for scheduling joint examination and drawing of samples, if warranted by the RMS for goods targeted by both Customs and the CBRA. |
| FR190 | It will also help Customs to schedule joint inspection with the concerned CBRA agreeing on a mutually agreed date/time and location, and notify relevant parties (via Traders UI, CBRA user interfaces) so that the consignment can be presented as scheduled. |
| FR227 | The system must be able to compute all taxes, fees, fines, penalties, and charges based on computable parameters. It should also compute late payment fees, payable interest etc. |
| FR239 | The system must provide functionality to create a payment advice that contains all necessary information to conduct a payment and produce a receipt of the actual payment. |
| FR240 | The system must ensure that only the trader and the payee is associated to the created advice. |
| FR410 | The system must be able to send the Application for the LPCO to consultation module in TARIM for receiving the appropriate measure by tariff code ITE (TARIC). |
| FR411 | The system must be able to send Economic Operator data to EORI for checks. |
| FR412 | The system must be able to perform business validation of the application for LPCO with verifying the data of the fields if they comply with the rules and conditions, and that all documents are available for the LPCO. |
| FR413 | The system must be able to verify ITE measures for the application for LPCO. |
| FR414 | The system must be able to validate the EORI data response for Economic Operator for application for LPCO. |
| FR415 | The system must be able to notify EO of rejection of application for LPCO. |
| FR416 | The system must be able to allocate Unique Number to the LPCO. |
| FR417 | The system must be able to change status of the application for LPCO to accepted. |
| FR418 | The system must be able to send application for LPCO to risk analysis. |
| FR419 | The system must be able to check if additional controls are recommended from the results of the risk analysis. |
| FR420 | The system must be able to notify EO for time and place of control. |
| FR421 | The system must be able to send application for LPCO for controls to inspection control results. |
| FR422 | The system must allow to the NSW Officer to accept or reject the application for LPCO (issuing LPCO). The NSW Officer, should be presented with:   * Application for LPCO * Risk Analysis Results * Measures from ITE * Control Results (if any) * Fees are paid. |
| FR423 | The system must be able to Notify EO of Rejection of Application for LPCO. |
| FR424 | The system must be able to change the Status of the LPCO to “accepted”. |
| FR425 | The system must be able to Issue Certificate with:   * unique LPCO number, * validity period * an official signature of the Competent Authority. |
| FR426 | The system must be able to Notify EO of Acceptance of Application for LPCO. |
| FR427 | The system must be able to send LPCO data to repository. |
| FR428 | The system must be able to send the new issued LPCO to SEED+. |

**1.2.12.3. Annulment of License, Permit, Certificate, and Other (LPCO)**

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*Figure 15: BPMN Process Diagram: Annulment of LPCO*

**Process Description**: The purpose of this process is to handle a request to annulment a LPCO. The process starts when the request for Annulment of LPCO is received from the Economic Operator. The request needs to be first technicaly validated. If the request for annulment is technically valid, the request for the annulment is recorded. Then, the NSW retrieves LPCO information and checks the status of the LPCO. If the status of the LPCO don’t allows to be annulled, rejection message is sent to the EO. If the status of the LPCO is ok to be annulled, a decision for annulment is taken from NSW officer. If the decision is to annul, the LPCO is annulled, and notification is sent to EO. If the decision is not to annul the LPCO, the rejection of the request is sent to EO.

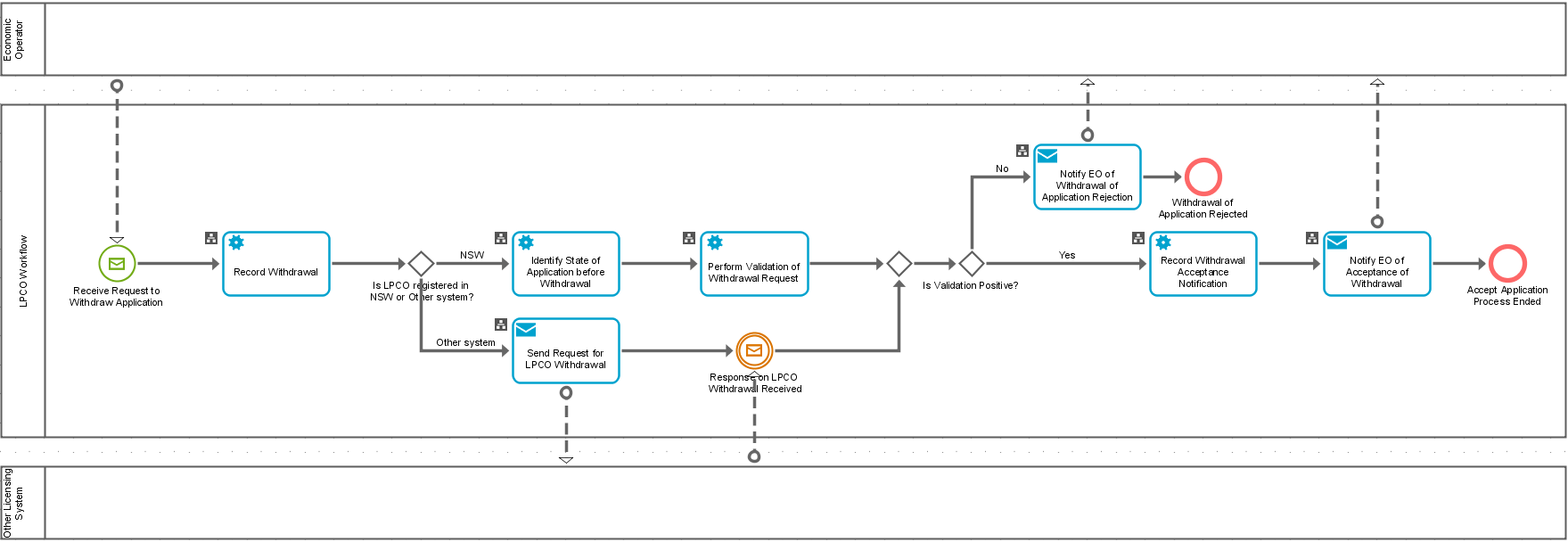
**Process Steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start event | Receive Request to Annul LPCO | The NSW system can receive request from EO for annulment of LPCO. |
| Service Task | Perform Technical Validation of Request for Annulment of LPCO | When the requests for annulment of LPCO are received the system needs to perform technical validation of the request to annul LPCO. |
| Service Task | Record Request for Annulment of LPCO | If the request for annulment is technical valid, request for the annulment of LPCO is recorded. |
| Service Task | Retrieve LPCO Information | The NSW System retrieves the information for LPCO requested and identifies:   * LPCO availability * appropriate status |
| Service Task | Check Status of LPCO for Annulment | The status of the LPCO is checked. |
| Send Task | Notify for Rejection of Request for Annulment of LPCO | If the request to annul LPCO is not valid, or the status of the LPCO is not ok for annulment, the system notifies EO. |
| End event | Request for Annulment of LPCO Rejected | The process ends when the request for Annulment of LPCO is rejected. |
| User Task | Take Decision for Annulment of LPCO | If the status of the LPCO is fine to be annulled, a decision for annulment is taken from NSW officer. |
| Send Task | Notify of Decision for Rejection of Annulment of LPCO | If the decision is not to annul the LPCO, the rejection of the request is sent to EO. |
| End Event | Request for Annulment of LPCO Rejected | Request rejected. |
| Service Task | Annul LPCO | If the decision for annulment of LPCO is positive, the LPCO is annulled. |
| Send Task | Notify for Annulment of LPCO | After the LPCO is annulled, Notification for annulment is sent to EO. |
| End Event | Annulment of LPCO Processed | The process for annulment of LPCO is completed. |

**Functional Requirements:**

| **ID** | **Description** |
| --- | --- |
| FR154 | The CBRA may also initiate the action to amend or cancel an issued LPCO. |
| FR430 | The system must be able to perform technical validation of the application for LPCO annulment. |
| FR431 | The system must be able to record the request for annulment of LPCO. |
| FR433 | The system must be able to retrieve information of LPCO. |
| FR434 | The system must be able to identify the availability of the LPCO. |
| FR435 | The system must be able to identify the status for a given LPCO. |
| FR436 | The system must be able to check status of LPCO for annulment. |
| FR437 | The system must be able to notify for rejection of request for annulment of LPCO. |
| FR438 | The Inspection Officer must be able to take decision for annulment of LPCO. |
| FR439 | The system must be able to notify of decision for rejection of annulment of LPCO. |
| FR440 | The system must be able to annul LPCO. |
| FR441 | The system must be able to notify both EO and Customs for annulment of LPCO. |

**1.2.12.4. Withdrawal of Application**

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*Figure 16: BPMN Process Diagram: Withdrawal of Application*

Description: This process describes the possibility to withdraw the application at any time before a decision is taken, which implies that this process is an interruptive process. After receiving the request for withdrawal, it is recorded in the NSW system. Then the system performs check if the LPCO is registered in the NSW or Other system. If it is in other system, than the NSW sends request for withdrawal to other licensing system and receives response. If the LPCO is issued via NSW, it identifies the state of application before withdrawal. First a validation is performed on the Request for Withdrawal. If this validation is negative, this process ends and the process that was interrupted is resumed. If this validation is positive, the withdrawal is recorded and the applicant will receive a notification of the withdrawal. The final result of this process is: Validation errors notification is sent or the notification the application is withdrawn is sent.

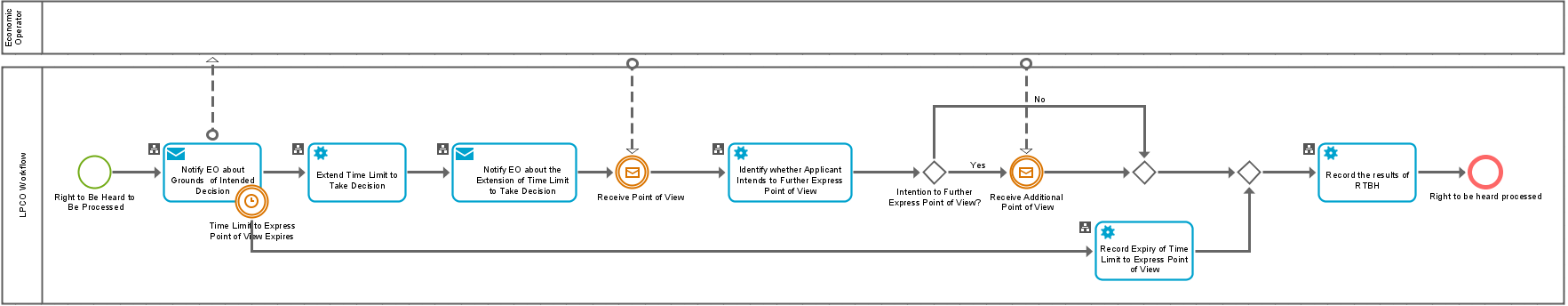
**Process steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Event | Receive Request to Withdraw Application | The NSW system receives request from EO to withdraw the application. |
| Service Task | Record Withdrawal | The NSW system records the request to withdraw the application. |
| Send Task | Send Request for LPCO Withdrawal | If the LPCO is issued in other system, than the NSW sends request for withdrawal to other licensing system and receives response. |
| Message Event | Response on LPCO Withdrawal Received | Response on withdrawal of application is received from other licensing system. |
| Service Task | Identify State of Application before Withdrawal | This task identifies the state of application before withdrawal. |
| Service Task | Perform Validation of Withdrawal Acceptance | When a Withdrawal Acceptance Notification is received, the system will automatically validate the IE. Syntactic checks should include, at minimum: - Data compliance to its associated Rules & Conditions. Final situation: The result of the validation is positive and the process will continue. The result of the validation is negative: a notification is sent to EO containing the validation errors and the process ends. |
| Send Task | Notify EO of Withdrawal of Application Rejection | The system notifies the EO of rejection of withdrawal of application. |
| End Event | Withdrawal of Application Rejected | Withdrawal of Application Rejected. |
| Send Task | Record Withdrawal Acceptance Notification | The NSW records the withdrawal acceptance. |
| Send Task | Notify EO of Acceptance of Withdrawal | The NSW notifies the EO of acceptance of withdrawal of application. |
| End Event | Accept Application Process Ended | The process of withdrawal of application finished. |

**Functional Requirements:**

|  |  |
| --- | --- |
| **ID** | **Description** |
| FR121 | The Applicant must be able to withdraw his application submitted earlier. The NSW System shall provide functionality to withdraw / cancel an application with all associated documentation prior to submission. The NSW System must ensure that only the originating applicant (or his representative) can withdraw/cancel the application. |
| FR144 | The system must provide functionality for CBRA to process any change or withdrawal requests from applicant before an application is approved. |
| FR477 | The system must record the request of withdrawal of application. |
| FR478 | The system must identify the state before the state "Withdrawn". |
| FR479 | The system must identify if the state of the application has ever been "Accepted". |
| FR480 | The system must send a request for LPCO withdrawal to the other licensing system. |
| FR481 | The system must perform validation of withdrawal acceptance. |
| FR482 | The system must be able to notify the EI of rejection of withdrawal of application. |
| FR483 | The system must record data as it is registered or processed automatically. |
| FR484 | The system must notify the applicant with an IE of acceptance of withdrawal. |

**1.2.12.5. Right to be Heard**

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*Figure 17: BPMN process: Right to be Heard*

**Description**: The purpose of this process is to giving the trader the “Right to be Heard” (RTBH). Prior to issuing a decision, the applicants will be provided with a RTBH which gives an opportunity to provide any further information which may affect the decision being issued.

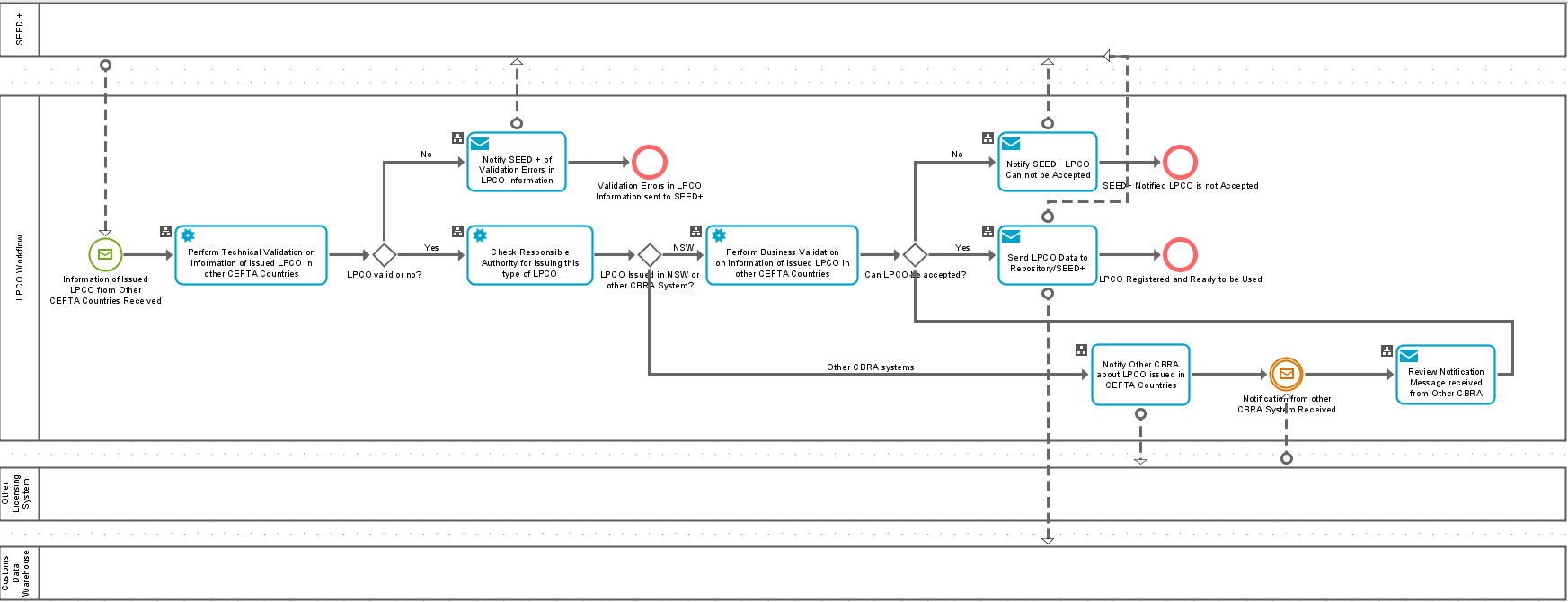
**Process steps:**

| **Step** | **Name** | **Description** |
| --- | --- | --- |
| Start Event | Right to Be Heard to be Processed | The process will be initiated whenever the Applicant has a right to be heard. |
| Send Task | Notify EO about Grounds of Intended Decision | When the process is initiated, a notification is automatically sent to the EO notifying of the ground of the intended decision. |
| Timer | Time Limit to Express Point of View Expires | This event indicates the expiry of the time limit to express point of view. |
| Service Task | Extend Time Limit to Take Decision | When the notification has been sent to the applicant, a time limit to express the point of view by the applicant is automatically started. This time limit expiry date is the date upon which the grounds of intended decision is communicated. Within this time limit the Point of View of the applicant must be received, otherwise it expires and no point of view will be recorded. |
| Send Task | Notify EO about the Extension of Time Limit to Take Decision | When the requested extension has been accepted, a notification IE is automatically sent to the applicant with the parameters of the extension of the time limit (the reasons and the further period of time). |
| Message Event | Receive Point of View | The system receives the message from the applicant where he expresses his point of view. This point of view must be received before the end of the legal time limit. |
| Send Task | Notify EO about Message Reception | A notification will automatically be sent to the EO to notify the reception of the information. |
| Service Task | Identify whether Applicant Intends to Further Express Point of View | The system will automatically identify if, based on the received IE message, the applicant has expressed a desire to further express his point of view. In that case, the system will wait for a second IE message (additional point of view). If not, the process continues and stops the timer to express the point of view. |
| Message Event | Receive Additional Point of View | The system receives the additional message from the applicant where he expresses his point of view. |
| Service Task | Stop Timer to Express Point of View | Following the receipt of point of view information and additional point of view information (where supplied) from an applicant, the time limit within which a point of view can be expressed is stopped. |
| Service Task | Record Expiry of Time Limit to Express Point of View | When the time limit to express point of view expired, this is recorded in the system. |
| Service Task | Record the results of RTBH | When the point of view is received, the data elements will automatically be recorded in the System. |
| End Event | Right to be heard processed | The process ends here when the timer to express point of view expired or a point of view is received. |

**Functional Requirements:**

|  |  |
| --- | --- |
| **ID** | **Description** |
| FR485 | The system must notify the EO with an IE about grounds of intended decision. |
| FR486 | The system must calculate the date upon which the time limit to express point of view expires. |
| FR487 | The system must be able to notify EO about the extension of time limit to take decision. |
| FR488 | The system must be able to identify if the applicant intends to further express his point of view. |
| FR489 | The system must identify the attached documents in expressed point of view. |
| FR490 | The system must record the results of the RTBH. |
| FR541 | The system must be able to extend the time limit to take decision. |
| FR542 | The system must be able to record the expiry time limit to express point of view. |

**1.2.12.6. Register information for the issued LPCO by other countries through SEED + or Traces NT**

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*Figure 18: BPMN Process Diagram: Register information for the issued LPCO by other countries through SEED + or Traces NT*

**Description*:*** The process starts when an information on the issued LPCO from other CEFTA countries is received from SEED+. The NSW performs technical validation. If during the validation errors occur, the NSW notifies SEED+ of validation errors. If the technical validation is positive, the system checks who is the responsible authority that issued this type of LPCO on national level. If it is issued in NSW, the system performs business validation, after which if the LPCO cannot be accepted, it notifies SEED+. If the LPCO can be accepted the NSW sends the LPCO data to repository. If LPCO is to be issued in other CBRA system, first it notifies that system, after which expects to receive message from that system. After the NSW receives the message from the other CBRA system, it reviews the received information. If the LPCO cannot be accepted, it notifies SEED+. If the LPCO can be accepted the NSW sends the LPCO data to repository.

**Process Steps*:***

|  |  |  |
| --- | --- | --- |
| **Step** | **Name** | **Description** |
| Start Event | Information for Issued LPCO from Other CEFTA Countries Received | The NSW receives information for issued LPCO from other CEFTA Countries. |
| Service Task | Perform Technical Validation on Information of Issued LPCO in other CEFTA Countries | The NSW perform technical validation on the information of issued LPCO in other CEFTA countries. |
| Send Task | Notify SEED + of Validation Errors in LPCO Information | The NSW notifies SEED+ of validation errors. |
| End Event | Validation Errors in LPCO Information sent to SEED+ | Validation errors in LPCO information sent to SEED+. |
| Service Task | Check Responsible authority for Issuing this type of LPCO | The NSW system checks the responsible authority who issued the LPCO. |
| Service Task | Perform Business Validation  on Information of Issued LPCO in other CEFTA Countries | The NSW perform business validation for the information of issued LPCO in other CEFTA countries. |
| Send Task | Notify SEED+ LPCO cannot be accepted | NSW notifies SEED+ that LPCO cannot be accepted. |
| End Event | SEED+ Notified LPCO is not Accepted | SEED+ Notified LPCO is not Accepted. |
| Send Task | Send LPCO Data to Repository | The NSW system send LPCO data to the repository, including all relevant information of all certificates with all necessary information. |
| End Event | LPCO Registered and Ready to be Used | LPCO Registered and Ready to be Used. |
| Send Task | Notify Other CBRA about LPCO issued in CEFTA Countries | The NSW informs other CBRA about LPCO issued in other CEFTA countries. |
| Message Event | Notification from other CBRA System Received. | The NSW receives notification from other CBRA system. |
| Send Task | Review Notification Message received from other CBRA | The NSW reviews the notification message received from other CBRA. |
| End Task | Information from other CBRA Received | Information from other CBRA Received. |

**Functional Requirements:**

|  |  |
| --- | --- |
| **ID** | **Description** |
| FR109 | The module shall be able to integrate electronically issued certificates from abroad through the SEED+ connectivity. |
| FR429 | The system must be able to send LPCO received from SEED+ and to manage the quantity in NSW). |
| FR529 | The system must be able to perform technical validation on information on issued LPCO from other CEFTA countries. |
| FR530 | The system must be able to Notify SEED + of validation errors in LPCO information. |
| FR531 | The system must be able to check the responsible authority that issued the LPCO. |
| FR532 | The system must be able to perform business validation on information of issued LPCO in other CEFTA Countries. |
| FR533 | The system must be able to notify SEED+ about the acceptance or non-acceptance of the LPCO. |
| FR534 | The system must be able to send LPCO data to repository. |
| FR535 | The system must be able to notify other CBRA about LPCO issued in CEFTA countries. |
| FR536 | The system must be able to review the notification message received from other CBRA. |

**1.2.13. NSW Risk Management**

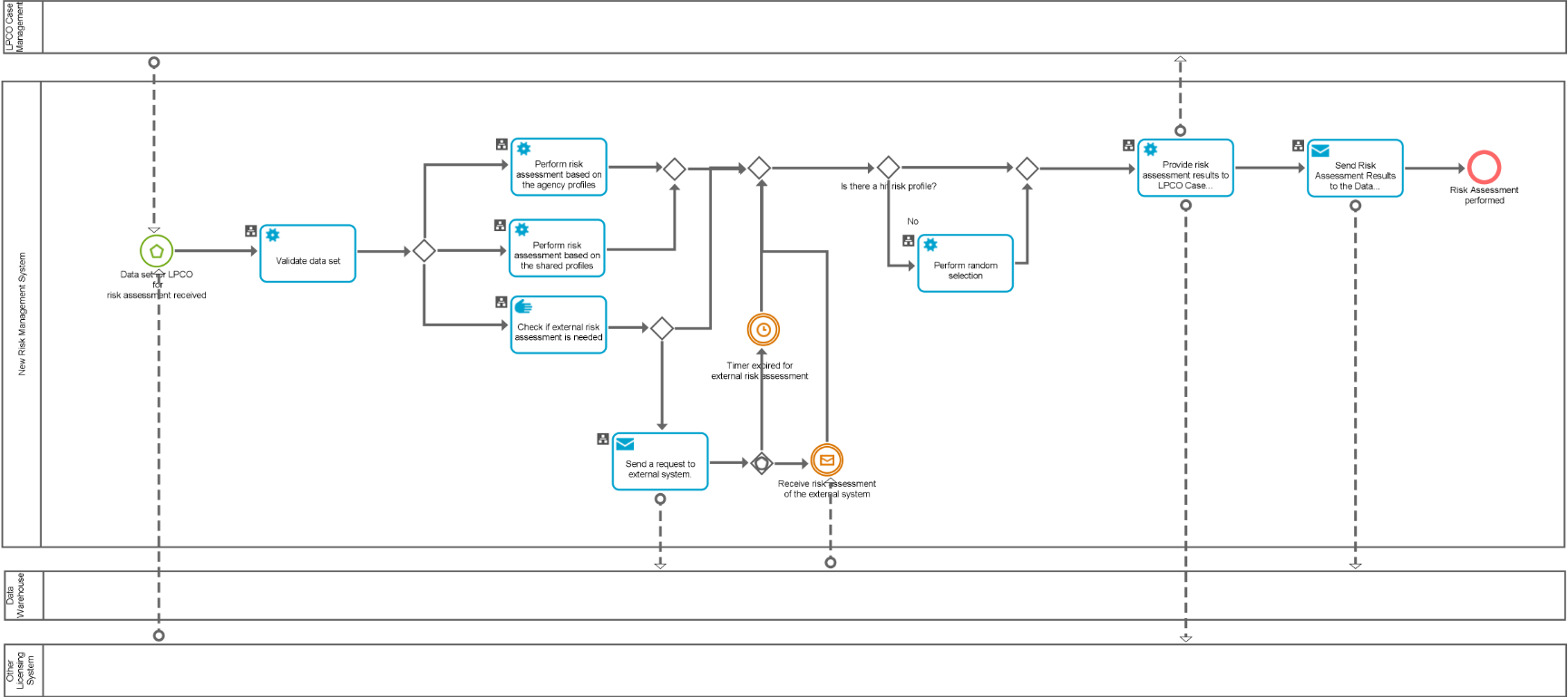
***Objective:*** The objective of the Risk Management Component (RMC) of NSW is to increase the safety and security measures to protect the business and citizens of the Republic of North Macedonia by using modern and efficient technology for fraud detection.

The section below describes the services, processes and functionalities which the RMC must support.

The RMC must support as minimum the following processes:

* Perform Risk Assessment
* Perform Risk Analysis
* Define Risk Profile
* Maintain Risk Scoring model

***1.2.13.1. Process: Perform Risk Assessment***

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*Figure 19: BPMN Process Diagram: Perform Risk Assessment*

***Process Description from RMM point of view****:*

Within the "Perform Risk Assessment" process the RMC must assess the risks associated with the issue of the LPCO - LPCO Application. The must encompass the validation of the received dataset, based on the LPCO application, the processing of the dataset by comparing the data with the risk profiles and scoring the detected data matches as per the scoring model.

Within the process, the system must determine whether external information (analysis) is necessary for a comprehensive risk evaluation and, if required, requests this information from an external system.

After risk assessment for agency and shared profiles and after the external risk assessment, the RMC must check and if needed perform random selection. The system must provide the results of the risk assessment back to the LPCO Workflow module, or to the other Licensing Systems, including Customs Risk Management System for further processing of the LPCO Application. The RMC must provide the assessed dataset and the results of the assessment to the Data Warehouse for further analysis.

***Process Steps:***

| **Step ID** | **Name** | **Description** |
| --- | --- | --- |
| Service Task | Validate data set | The task validates the LPCO application data set received. |
| Service Task | Perform risk assessment based on the agency profiles | The task performs risk analysis on the LPCO Application using the defined CBRA profiles for LPCO Application. |
| Service Task | Perform risk assessment based on the shared profiles | The task performs risk assessment on the LPCO Application with the shared profiles or indicators from EU TAXUD, CEFTA, other countries government agencies. |
| Service Task | Check if external information is needed | The system checks if additional risk assessment from external system is need/required. |
| Send Task | Send a request to external system. | The system sends the LPCO Application data for external risk assessment. |
| Service Task | Perform Random Selection | Select randomly LPCO Application for documentary, physical or sampling control. |
| Service Task | Provide Risk Assessment Results to LPCO Workflow | The RMC store results of assessment and notify LPCO Workflow module about results of the assessment. |
| Send Task | Send Risk Assessment Results to the Data Warehouse | The RMC must send the result of the assessment for storage in Data Warehouse. |

***Functional Requirements:***

|  |  |
| --- | --- |
| **FR ID** | **Description** |
| FR260 | The RMC must accept and validated different datasets, based on the economic operator LPCO application, through mappings for XML LPCO elements. |
| FR261 | The risk management component must be fully configurable in order to define different types of parameters, e.g., risk indicators, criteria, profile, percentage random selection, profile owner, timeout, etc. |
| FR262 | The Risk Management Component must assess ONLY LPCO Applications of the requesting agency, based on the Risk profiles, which are maintained by the same agency. |
| FR263 | The RMC must assess LPCO applications of the requesting agency, based on the Risk profiles, which are provided by other institutions like the DG TAXUD, CEFTA, etc. and provide feedback to those institutions. |
| FR264 | The RMC must assess other than the LPCO Application documents. |
| FR265 | The RMC must be able to accept assessment results, provided by external systems and specify the needed actions automatically based on the scoring model. |
| FR527 | The Solution must support storage of internal data in a database in the Solution to be used in connection with the Risk assessment process. |
| FR274 | The RMC must provide an alert / notification system including sending e-mail alerts and SMS to inform all intervention instructions (i.e. the reason for selection) to the risk analyst reviewing the transaction; in the case where more than one risk criteria applies, all intervention instructions will be displayed. |
| FR528 | The system should operate as hybrid, both as integrated service and an independent entity. Other Cross Border Regulatory Agencies (CBRAs) should utilize the interfaces to submit LPCO forms for Risk Assessment and retrieve corresponding results. |
| FR276 | To support configurability, the RMC must provide an administration tool designed to facilitate the continuous updating, keeping records and defining of risk criteria, weightings, trader/import profiles and random sampling. |
| FR281 | The RMC must provide for prohibitions and restrictions (blacklists) to be defined criteria to ensure any shipment meeting the specific parameters will be selected for inspection. |
| FR282 | The RMC must automatically adjust the relevance of the profiles and their respective weighting based upon the performance and the parameters of that criteria application. |
| FR284 | The user will have the option to enter the frequency including counting mechanism under which specific CBRA should be executed (example, 3% inspection rate for shipments coming from country X and containing goods under classification Y, or first 10-20 shipments with same conditions). |
| FR285 | The RMC must recommend the control actions that must be taken based on the risk level. In addition to recommending specific control actions, the RMS will also provide instructions to be carried out during control procedures. |
| FR286 | The Solution must ensure that Control Recommendations are derived from a combined assessment of the Agency Risk Criteria(‘s), Risk Profiles, Random Selection and Risk Models. |
| FR287 | The RMS must provide for a configurable control treatments and options for specifying the consignments based on the risk results: green, red, yellow, blue lane etc. Colours must be defined for each level in the scoring model. Each CBRA should have options to define colour for each level based on agency policy and rules. |
| FR289 | The RMC must allow entering the frequency and time periods under which specific control treatments and options should be executed |
| FR290 | The RMC must allow the Risk Rules to be designed based on variously approaches: ‘Rules based Approach’, ‘Statistical Approach’, ‘Nul Factors’ and ‘Random Approach’. |
| FR291 | The risk rules engine will set control action required, when specific defined criteria are met. |
| FR293 | Random selections must be automatically adjusted to match resource levels. |
| FR294 | The RMC must allow entering the frequency and time periods under which specific control treatments and options should be executed. |
| FR296 | The RMC must provide a random LPCO selection facility that will direct those LPCO's that would normally pass for no intervention to both documentary and physical examination channels. |
| FR298 | RMC must provide reports for each CBRAs in according with certain criteria and requirements. |
| FR300 | The RMC must make available the intervention data e.g., findings such as misclassification, etc., to the Risk analysis and Profiling, Intelligence and Post Audit offices and any other interested parties through the Data Warehouse. |
| FR301 | The RMC must provide a secure communication platform to support information sharing and data exchange between risk analysts, profilers, inspectors and managers within the CBRAs. |
| FR302 | The RMC must provide reports on effectiveness of all risk objectives and treatment methods to support and maintain compliance. |
| FR305 | A full history of risk assessment results must be maintained in the RMC. |
| FR306 | The RMC must be able to generate different types of reports about the performance of the risk management process, including:   * The measurement of the effectiveness of risk management and mitigation activities/controls taken based on the levels of the risk of transactions; and * Measurement of the compliance of traders, declarant, origins, etc. |
| FR307 | The RMC should able to calculate and enable analysis of:   * Risk management effectiveness by risk rule; * Risk profile effectiveness; * Risk profile detection simultaneously with other risk profiles; and * Measure compliance history by individual trader and by different parameters such as commodities, origin, declarant, and any other parameters. |

***1.2.13.2. Process: Perform Risk Analysis***

Process description: The Risk Management Component (RMC) must provide a facility for advanced risk analysis based on the historical data, inspection protocol results and data coming from external sources.



*Figure 20: BPMN Process Diagram: Perform Risk Analysis*

It is expected the Bidders to propose services, which will be necessary for effective risk analysis. The following services are expected to be provided by the RMC as minimum, but the Bidders may propose other services as well, which will increase their evaluation results.

| **Step ID** | **Name** | **Description** |
| --- | --- | --- |
| Service Task | Apply different algorithms | The task validates the LPCO application data set received. |
| Service Task | Perform recommendation service | The task performs risk analysis on the LPCO Application using the defined CBRA profiles for LPCO Application. |
| Service Task | Propose new risk profiles / risk indicators | The system must propose new risk profiles/risk indicators |
| Service Task | Perform intelligent insight service | The task performs risk assessment on the LPCO Application with the shared profiles or indicators from EU TAXUD, SEED+, other countries government agencies. |
| Service Task | Perform market surveillance service | The system checks if additional risk assessment from external system is need/required. |
| Service Task | Generate reports to agency officers | The task generates reports from intelligent insight service and market surveillance service |

***1.2.13.3.* Risk profile recommendation service**

The Risk Profile Recommendation service must provide recommendations for automatics creation of risk profiles. The service must deploy advanced algorithms and analytical techniques to collect and analyze information from different sources (internal and external) and propose risk indicators.

***Functional Requirements:***

| **FR ID** | **Description** |
| --- | --- |
| FR516 | The RMC must be able to apply Machine Learning algorithms for the discovery of the risk patterns from unstructured text. |
| FR517 | The RMC must be able to match the discovered information with the risk indicators managed in the Risk assessment functional block. |
| FR518 | The RMC must provide functionality for the user manually to adapt the proposed risk profiles before registering them into the system. |
| FR543 | The RMC must be able to discover risk indicators from the historical data (internal and external sources). |

***1.2.13.4.* Intelligent Insight service**

The Intelligent Insight service must perform advanced statistical analysis, based on the historical data. The service must be integrated with the risk assessment functional block and support the improvement of the risk profiles and decision-making processes.

By leveraging Intelligent Insight's analytics capabilities based on up-to-date information, users can gain valuable insights into the RMC operations and the measures undertaken to improve the security of the citizens and the business in the country.

***Functional Requirements:***

| **FR ID** | **Description** |
| --- | --- |
| FR544 | The RMC must provide information about the Risk profiles hitting map (the number of hit per risk profile / risk indicator). |
| FR545 | The RMC must provide information about the rate of random selected inspections towards all inspection by agency. |
| FR546 | The RMC must provide information about the rate of fraud detected during the inspections and the total number of inspections, based on the risk profile hits. |
| FR547 | The RMC must provide information about the fraud detected per country, transport means, goods, company. |
| FR548 | The RMC must provide mirror statistics analysis about the discrepancies of the declared import and export data. |
| FR549 | The system should provide functionality for conducting statistical analysis on the current information, offering various methods and measures for data analysis |

***1.2.13.5.* Market surveillance service:**

The Market Surveillance Service must provide market(s) monitoring and analysis of market conditions, with a specific focus on identifying irregularities, including price dumping practices. This service must utilize data collected from various online sources, including websites, e-commerce platforms, and online marketplaces, to provide insights and alerts regarding potential instances of price dumping.

***Functional Requirements:***

| **FR ID** | **Description** |
| --- | --- |
| FR550 | The system should be capable of gathering data from a wide range of online sources, including websites and online stores, to capture pricing information and related data relevant to market surveillance. |
| FR551 | The service should perform price comparisons across different online platforms, identifying potential instances of price dumping by analyzing pricing trends, deviations, and historical data. |
| FR552 | The system should utilize rule-based algorithms to detect price dumping practices based on predefined criteria, thresholds, and market regulations. |
| FR553 | When potential instances of price dumping are detected, the service should generate real-time alerts, notifying relevant stakeholders, such as market regulators or competition authorities, about the identified irregularities. |
| FR554 | The system should provide comprehensive reports and visualizations that present the findings and analysis of market surveillance activities, enabling stakeholders to interpret and act upon the information effectively. |

***1.2.13.6. Process: Maintain Risk Profile***

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*Figure 21: BPMN Process Diagram - Maintain Risk Profile*

***Process Description****:* The RMC must support the creation of a risk profile manually or automatically, by using external services. The RMC must allow manual and automatic definition of specific risk indicators, values, parameters and criteria that determine the level of risk. The component must be able to utilize the risk analysis generated in the “Perform risk analysis”. This automatic entry feature streamlines the process by leveraging existing risk assessments and indicators. By defining risk profiles, the system must enable efficient categorization and evaluation of risks, supporting effective decision-making and allocation of resources. The availability of both automatic and manual profile entry options ensures adaptability to varying risk scenarios and enhances the overall risk management capabilities of the system.

***Process Steps:***

| **Step ID** | **Name** | **Description** |
| --- | --- | --- |
| Service Task | Received risk profiles and indicators from SEED+ | The system receives analysis of share risk profiles and indicators from SEED+. |
| Service Task | Generate automatically risk profile proposal | The system automatically generates a risk profile based on the data, received by other systems. |
| User Task | Create risk profile manually | This RMC must be able to register risk indicators, risk categories, risk profiles manually. |
| User Task | Set risk category | The user must be able to register a risk category including the risk indicators with which to categorize the risk profile. |
| User Task | Set profile owner | The RMC must allow the selection of the person, responsible for the risk profile and the system will notify the owner / sends a message when the risk profile they created is hit. |
| User Task | Set LPCO type | The system supports the users to select the LPCO Application for inspection and specifies the nature of intervention. |
| User Task | Set of risk profile schedule | The RMC must allow the User to maintain Profile Schedule: Should the Risk Profile operate only for a certain period of time, and then a Schedule needs to be created to define these periods in the system. |
| User Task | Define white list | The RMC must allow the users to specify Whitelist of Goods, companies and countries. |
| User Task | Create rule profile | The system must allow the User to maintain of Risk Rules. Risk Rules stand for a logical conditions that form Risk Profile. If satisfied, these conditions are measured in terms of score (points). As bigger is the amount of point returns Risk Profile for the Declaration / Document as higher is Risk assessment for it. |
| Service Task | Assign risk score | The RMC must be able to specify different Risk Levels, based on a scale of scores (points) and to classify the risk results, based on it. The system must allow definition of the minimum and maximum score of Risk Level, defining the thresholds between different levels. Examples of Risk Levels are:   * No Risk; * Low Risk; * Medium Risk; * High Risk, etc.   The Inspection codes and instructions are assigned to Risk Level so that Risk Officers know what to control. |
| Service Task | Test risk profile | The RMC must allow by risk experts to test the risk profiles using historical data. |

***Functional Requirements:***

| **ID** | **Description** |
| --- | --- |
| FR500 | The system must allow manual entry of a risk profile: Risk profile settings should include added and setup: Risk category; Profile owner; Document Type; Risk profile schedule; White list; Rule and add score; Risk indicator that can be able conditional or required and Recommendation. |
| FR501 | The system must allow a test risk profile to be created. And through the test risk profile to make a report of historical data. |
| FR502 | The system must be able to automatically input data from the additional information received |
| FR503 | The RMS must provide a user-friendly interface for defining various types of parameters, including risk indicators, criteria, profiles, and other relevant factors. Users must be able to create, modify, and delete these parameters as needed. |
| FR504 | The system must allow users to define risk indicators that are relevant to their specific domain or industry. These indicators could include factors such as transaction value, country of origin, product type, compliance history, weight of goods, mathematical calculations among available data or any other variables that contribute to risk assessment. |
| FR505 | The RMC must enable users to configure criteria that determine the risk levels. Users should be able to set thresholds, weights, or scoring rules for each criterion |
| FR506 | The system must support the creation of risk profiles that represent different risk categories or levels. Users should be able to define the characteristics, risk thresholds, and associated actions or controls for each profile. |
| FR507 | The RMC must support the obsolescence of the Risk profiles without being deleted and keeping the history for those profiles. |
| FR508 | The RMC must allow search of the risk profiles based on different criteria, including tagging. |
| FR509 | The Solution must keep an audit trail of all data changes, such as, but not limited to:   * What data was affected? * The kind of change (creation, update or deletion) * Who applied the change? * When was the change applied? |
| FR510 | The Solution must support configuration of roles and user rights to all functionality in the Solution based on a CRUD approach, i.e. one user can read Risk Profile but not update them, whereas another user can do both. |
| FR511 | The RMC must provide functionality to copy risk profiles and paste them, allowing changes afterwards. |
| FR512 | The RMC must allow generation of report about the risk profiles, whereas the similarities could be easily identified. |
| FR513 | The Solution must ensure that the status of the Risk profile can be changed from closed to open and vice versa. |

***1.2.13.7. Process: Maintain Risk Scoring model***

******

**

*Figure 22: BPMN Process Diagram - Maintain Risk Scoring model*

**Process steps:**

| **Step ID** | **Name** | **Description** |
| --- | --- | --- |
| User Task | Determine Risk Category | Risk categorization is a process of classifying risks into distinct categories based on their characteristics and attributes. It involves the identification and grouping of risks according to common characteristics such as the nature of the risk, its potential impact, or the likelihood of its occurrence. Risk categorization provides a structured approach for understanding and managing risks by organizing them into meaningful groups. |
| User Task | Determine Start Value | Determining the start value involves establishing an initial or baseline value for a specific variable or factor within a risk assessment or scoring model. The start value serves as the starting point or reference point from which further calculations or adjustments are made during the risk assessment process. |
| User Task | Define the colour pallete | Defining a colour palette is essential for visually representing and distinguishing different levels of risk. Each colour within the palette should correspond to a specific risk level, making it easy for users to identify and understand the relative severity of risks. |
| User Task | Determine Risk coefficient based on the probability and impact | Configuration of a model for risk scores conditional on risk category, which creates relevant scores based on predefined interdependencies between a starting number and coefficient values and places the matching results in the relevant risk level ranges. |
| User Task | Determine Risk Level | This is a scale of scores (points), according to which the Risk result is classified. There should be minimum and maximum score of Risk level, defining the thresholds between different levels. |
| User Task | Test the Scoring Model | Integrating the scoring model into risk profiles involves incorporating the scoring model's calculations and outputs into the existing risk profile framework. This integration allows for a comprehensive and standardized approach to evaluating and categorizing risks based on their scores. |

**Functional Requirements:**

|  |  |
| --- | --- |
| **FR ID** | **Description** |
| FR269 | The RMC must provide for a risk-rating tool (scoring model). For each criterion, the RMS shall provide for a user definable risk rating (e.g., high, medium and low) shall be determined and a weight coefficient assigned to differentiate each profile according to the priority of each profile. |
| FR270 | The RMC scoring model must provide a risk-rating algorithm / method will be applied. This score is one element within the risk assessment toolset. It can be used to rank risk criteria, profiles to assist with direct attention to areas of greatest risk. |
| FR271 | The RMC must provide functionality to reassess the risk scoring model at particular time intervals and when the risk rating criteria changes. |
| FR272 | The RMC risk rating must be able to assess the risk of an entity as well as the transaction pre-, post- or at the border, because these risks may be different. |
| FR273 | Where the risk rating for an entity / transaction exceeds a predetermined threshold, the RMC shall generate an alert will be created automatically, identifying that entity / transaction to be of concern. |

**1.2.14. Referent Tables**

Referent tables, in the context of data services, act as intermediaries between systems, providing a standardized and structured interface for accessing data. Their primary functions include:

Referent tables enable seamless integration of data from diverse sources and systems.

They facilitate the exchange of data between systems with varying data structures and formats.

**Functional Requirements**

|  |  |
| --- | --- |
| **FR ID** | **Description** |
| FR572 | The system must be able to have module for reference tables from where the common data will be shared within other modules/services. |
| FR573 | The system must have user interface to define and manage the reference tables |
| FR574 | The system must have API to provide the data from the referent tables |

**1.2.15. Reporting Service**

Module Integration:

Reporting Service must act as a central hub that seamlessly connects data from multiple modules across NSW. It should be able to allow access and analyze data from various sources within a single interface and enhancing cross-functional collaboration.

The tool should be able to integrate seamlessly with our existing data infrastructure, including our data warehouse and authentication systems.

Customizable Dashboards:

Reporting Service must have option to tailor data analysis experience by creating customizable dashboards that align with specific business objectives. Drag-and-drop functionality should be implemented to makes it easy to arrange widgets, graphs, and charts, allowing you to visualize the data.

Real-time Data Sync:

NSW Reporting service must use real-time data synchronization. As new data is generated within different modules, the Reporting Service must ensure that the most current information is available for analysis.

Advanced Data Visualization:

Reporting system must transform complex data sets into actionable insights with advanced data visualization tools. From interactive heat maps to trend analyses and pie charts, service should present data in a visually compelling manner.

Cross-Module Analytics:

Reporting service should have possibility for cross-module analytics, and should identify correlations and trends between seemingly unrelated data sets.

Data Security and Compliance:

Reporting service must employ robust encryption protocols and access controls, ensuring that sensitive information remains confidential and accessible only to authorized personnel.

Access and Roles

Understanding the unique requirements of different CBRA, the Reporting Service must facilitate separate definitions, reports, and data for each CBRA. This segregation ensures that data remains compartmentalized, providing distinct analytical spaces for various business functions while preventing unintended access or overlap.

**Functional Requirements**

|  |  |
| --- | --- |
| **FR ID** | **Description** |
| FR163 | The NSW must allow generation of reports to facilitate effective monitoring of performance and SLAs. |
| FR575 | The system must be able to provide reporting functionality for the business, services and system. |
| FR576 | The system must be able to integrate with the current environment referring to data infrastructure (data warehouse and authentication systems). |
| FR577 | The system must have option to tailor data analysis by creating customizable dashboards to present specific business and service’s needs. |
| FR578 | The system shall have the drag and drop functionality for widgets, graphs and charts in order to visualize the data. |
| FR579 | The system must be able to use real-time data synchronization. |
| FR580 | The system must be able to transform complex data sets into actionable insights with advanced data visualization tools. |
| FR581 | The system shall have possibility for cross-module analytics and should identify correlations and trends between seemingly unrelated data sets. |
| FR582 | The system must employ robust encryption protocols and access controls, ensuring accessibility to authorized personnel. |
| FR583 | The system must be able to produce different reports for each CBRA. |

**1.2.16 Help Desk**

The Help desk service is where the NSW Helpdesk support the traders and CBRA users on issues related to the usage of the NSW. It uses the issue tracking component and it is recommended that it is provided by a COTS solution.

**1.2.16.1. Issue Tracking**

The NSW Helpdesk will have an issue tracking system as the main contact point towards all users of the NSW system. The issue tracking will be a traditional way of handling issues, questions, and bugs that may arise while using the NSW.

*For the NSW user role:*

* + Register issue;
  + Update issue;
  + Search and view status of submitted issues; and
  + Close issue.

*For the NSW Helpdesk role:*

* Register issue;
* Update issue;
* Search and view issues based on users, status, category and date of submission;
* Solve issue; and
* Close issue.

|  |  |
| --- | --- |
| **FR ID** | **Description** |
| FR555 | NSW users shall be able to submit questions or issues through the NSW Portal. |
| FR556 | It shall be possible to send messages and notifications to users  whenever there is any information (newsletter) regarding the NSW  services or if there are any issues with the delivery of the services.  Notifications shall also be sent out whenever the status of a trouble  ticket is changed. |
| FR557 | It shall be possible for NSW users to call the NSW Helpdesk for  assistance and questions. |
| FR558 | NSW users shall also have the possibility to use online chat with  NSW Helpdesk. |
| FR559 | The NSW Helpdesk shall be responsible for proactive and continuous monitoring of NSW services and the underlying ICT infrastructure. |

1.3 Architectural Requirements to be met by the Information System

**1.3.1 The Information System MUST be supplied and configured to implement the following architecture**.

***1.3.1.1. The Supplier must define baseline architecture implementation.***

Within this activity the Supplier shall deploy initially the two identical environments for development and for integrated testing. The environments should be created with all necessary technology building blocks, to name just a few components: Messaging Service, Data Base Management System, Business Process Management suite, Business Rules Management Engine, a portal suite, an application server, process monitoring and log analyzer tools, service desk management and ticketing system, etc. Additionally, within this activity the Supplier for the purpose of testing should establish and implement also automated regression testing tools, and for Enterprise Architecture (EA) governance all necessary EA repositories.

Of those EA repositories the Supplier will develop process maps up to Level 3 and process architecture. The Supplier is expected to extend the initialized models with Enterprise Data Model and with Canonical Data Model for exchange of messages. The Supplier is also expected to complete Service Catalogue with all details for business and IT services. The Supplier will be also responsible for maintenance and updating of content of EA repositories during the whole project lifecycle.

Once services and ABBs (Application Building Blocks) are ready for integration with the other components in operation within the New Single Window environment, also the production environment should be installed for sustainable operation of integrated services.

The supplier is responsible to provide three (3) environments: production, development and test environment. The test environment must be provided at the moment of signature of the contract.

All three environments should be identical and complete to enable incremental implementation and regression testing of ABBs and SBBs (Services Building Blocks) in a few subsequent iterations. The said iterations will be controlled with common effort of the Supplier and of IT and Regression Team experts from the Beneficiary in order to gradually build Release Management capability of the New Single Window. Before the actual roll-out the Training Environment will use the testing environment in order to enable live training of all business users (Single Window officers).

The Supplier will be responsible for the administration and maintenance of all three environments till the end of the contract. The Supplier will enable access to the environments for the Beneficiary’s IT System administrators, EA & Project Team, Management Support project and Regression Testing Team members in environments depending on their project and business roles. National Service Desk officers will be given access to relevant ticketing, monitoring and SDMS applications in the training, testing and production environments. Business officers and managers will be granted with access to systems in the training and production environments. By the moment of delivery to the production environment the Supplier should provide sufficient training to the Single Window working group and Single Window system administrators to enable them to ensure and fully support operation of all environments since the roll-out. A backup policy and automatized procedure for restoring all environments should be developed by the Supplier while established, followed and mastered by the Single Window system administrators.

The Supplier should explain in detail in the bidding document (offer) part of the bid how and with what resources he is going to assign within this activity in order to satisfy those requirements.

***1.3.2. Target Business Architecture***

Business requirements describe what must be performed and produced to provide value. These business requirements are the "what" while the functional and technical architecture (products, systems, and processes) describes "how" to deliver or satisfy the "what". A focused business requirement and its analysis are critical to the success of any project. In this section, the business requirements and essential use cases have been defined to illustrate and describe “what” the interaction between each involved stakeholder and the electronic NSW will be. In other words, this section defines the main requirements and the scope. The business requirements also give an overview of the interaction between the stakeholder and the NSW.

***1.3.2.1. Stakeholders***

***1.3.2.1.1. Traders***

Traders can be any of the roles in the supply chain, including but not limited to importer, exporter, broker, freight forwarder, logistics provider, and warehouse owners.

***1.3.2.1.2. Customs Administration***

The Customs Administration has a central role in cross-border trade and is responsible for the customs processes in the NSW processing, and is also foreseen as the operator for the NSW. There shall be a clear interface between the NSW and the customs processing systems. Existing investments shall be protected.

***1.3.2.1.3. CBRA***

Customs Border Regulatory agencies are main stakeholders and users of the NSW system. They are diverse and include various entities that play key roles in the facilitation of cross-border trade. These stakeholders collaborate to ensure the successful operation of the NSW procedures regarding issuing and validation of LPCO. Here is a list of the primary stakeholders in NSW in North Macedonia:

* Food and Veterinary Agency
* State Agriculture Inspectorate
* State Sanitary and Health Inspectorate
* Agency for Medicines and Medical Devices – MALMED
* Ministry of Internal Affairs- Bureau for Public Security
* Directorate for Protection of Cultural Heritage
* Radiation Safety Directorate
* Ministry of Agriculture, Forestry & Water Economy
* Ministry of Agriculture, Forestry & Water Economy - Seeds and Planting Administration
* Ministry of Agriculture, Forestry & Water Economy – Phytosanitary Administration
* Ministry of Environment and Physical Planning
* Ministry of Health
* Ministry of Economy
* Ministry of Economy- Bureau for metrology
* Ministry of Transport and Communications
* Ministry of Transport and Communications – State Transport Inspectorate

\*NOTE: The list above contains the current primary stakeholders as users of the NSW. We expect the proposed solution to have the flexibility to add and delete CBRA institutions.

**Below is presented the list of current LPCOs which will be included in the NSW:**



***1.3.2.1.4.* International Institutions**

Taxation and the Central European Free Trade Agreement (CEFTA) play critical roles as stakeholders in the process of regional economic integration. Both aspects are essential in fostering economic growth, trade facilitation, and cooperation among member states within the CEFTA framework.

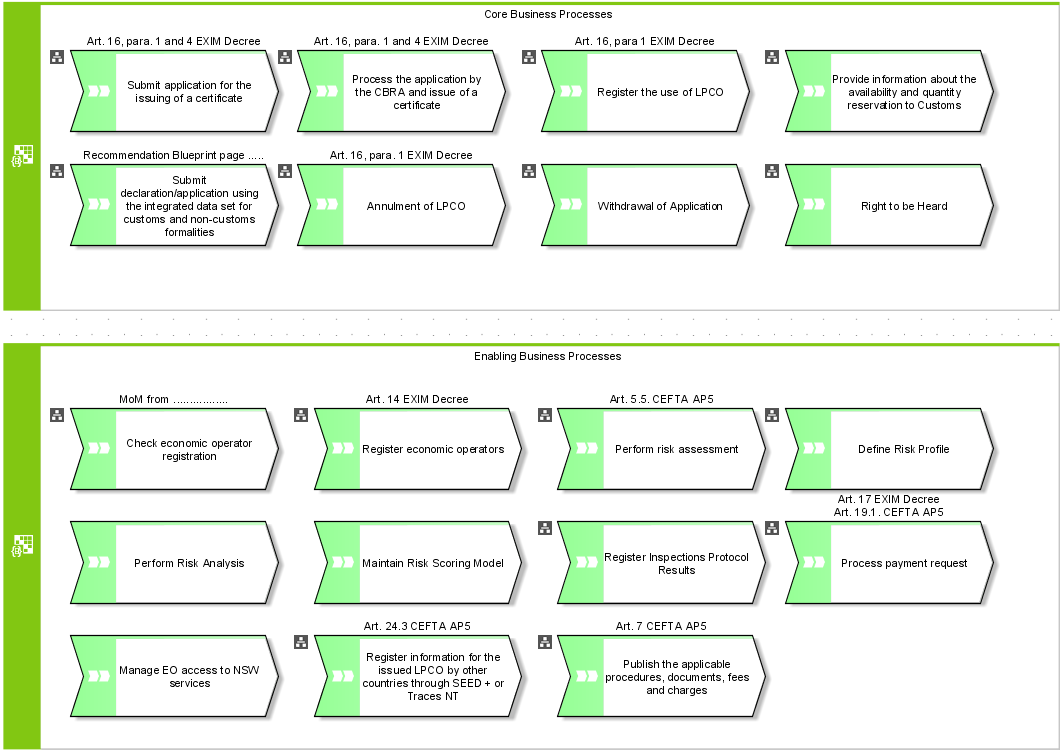
CEFTA is a regional trade agreement that includes countries from Southeastern Europe. Its primary objective is to facilitate trade and economic cooperation among member states. CEFTA provides a platform for participating countries to reduce or eliminate trade barriers such as tariffs, quotas, and non-tariff barriers. This trade liberalization promotes economic growth, job creation, and investment opportunities within the region.

**1.3.2.1.5. Business Requirements per stakeholder**

|  |  |  |
| --- | --- | --- |
| BR1.1 | Registration | Traders registering through the NSW shall be sent to the Customs Administration for verification and registration, through the UMS system and the EORI.  The Economic Operators Registration and Identification (EORI) system is a future plan and is not been developed yet.Until the EORI system is developed, NSW should use the UMS (User Management System) build in NSW. |
| BR1.2 | Synchronize ITE information | Data between the NSW and ITE needs to be exchanged via interfaces in real time. Data elements must be defined in the technical specification for the NSW Integrated Tariff. |
| BR1.3 | Review and issue LPCO | LPCOs issued by CBRA shall be managed through the NSW. |
| BR1.4 | Access LPCO details | Customs officers must be able to access and verify LPCO details on a specific trader. This is facilitated with integration between the NSW and the customs system. |
| BR1.5 | Perform risk management | The CBRA’s should have access to the NSW risk management applicable to LPCO application. |
| BR1.6 | Process or transform and dispatch information on LPCO and their usages | NSW must be able to process the request for usage of the LPCO if it is registered in NSW and exchange information with Custom Information Systems.  NSW must be able to transform and dispatch the information exchanges between Custom Information systems and CBRAs systems regarding LPCO and its usages. |
| BR1.7 | Advise for payment | CBRA’s send payment advice to the NSW users for service charges and fees. |
| BR1.8 | Payment notification | User pays service charges and fees to payment system and the Payment Services notify all involved parties. |
| BR1.9 | Coordinate release | Any inspections must be coordinated among the CBRAs. The Customs Administration and the customs declaration system shall provide goods clearance information to the NSW. The NSW is coordinating any other CBRA clearance and notifies the trader. |
| BR2.2 | Review and issue LPCO | CBRA authorities shall be able to view, manage, and approve/reject LPCO applications. |
| BR2.3 | Send inspection notification | In case any inspection is required, a notification with inspection details shall be sent to the applicant. |
| BR2.4 | Advise for payment | CBRA shall send payment advice to the NSW users for LPCO. In case there are additional fees NSW should be able to calculate expenses. |
| BR2.5 | Payment notification | CBRA shall be notified when payment is made. |
| BR3.2 | View LPCO | CBRA shall be able to view existing LPCO for inspection purposes. |
| BR3.3 | View declaration data | View information on submitted declarations data related to inspections. |
| BR3.4 | Risk management | CBRA shall be able to update profiles and see out-comes of risk assessments. |
| BR3.5 | Advice for payment | If there are any fees applied to inspections, the CBRA shall send payment advice to the NSW users for LPCO and NSW shall advise the trader on payment. |
| BR3.6 | Payment notification | When the trader has paid applicable fees, CBRA is notified. |
| BR3.7 | Results of inspections | CBRA shall be able to notify the NSW about the results of inspections. |
| BR3.2 | View LPCO | CBRA shall be able to view existing LPCO for inspection purposes. |
| BR3.3 | View declaration data | View information on submitted declarations data related to inspections. |
| BR3.4 | Risk management | CBRA shall be able to update profiles and see out-comes of risk assessments. |
| BR3.5 | Advice for payment | If there are any fees applied to inspections, the CBRA shall send payment advice to the NSW users for LPCO and NSW shall advise the trader on payment. |
| BR3.6 | Payment notification | When the trader has paid applicable fees, CBRA is notified. |
| BR3.7 | Results of inspections | CBRA shall be able to notify the NSW about the results of inspections. |
| BR4.1 | Quantity management | Based on the information in the request for usage of the LPCO, the goods clearance information and/or intervention information (if any), if the LPCO was issued in the NSW, the NSW should be able to perform the quantity management and to inform the Customs Administration about the Quantity Management Outcome. In case when the LPCO was issued in CBRA’s system, the NSW should be able to transform and dispatch the Quantity Management Outcome received from the CBRA to the Customs Administration. |
| BR4.2 | Provide LPCO | NSW must be able to provide LPCO Information and a PDF version if available, if the LPCO was issued in NSW. |
| BR4.3 | Manage LPCO usage | NSW must be able to register and maintain of the LPCO upon its presentation to customs. |
| BR4.4 | Status Tracking | The trader shall be able to see the current status of all related transactions and processes. |

**1.3.2.1.5. NSW Core and Enabling Business processes**

The following diagram presents the Core and Enabling business processes under the National Single Window.



*Figure 23: Diagram of Core and Enabling Business Processes*

**1.3.3. Data Architecture**

**1.3.3.1. New Data Sources**

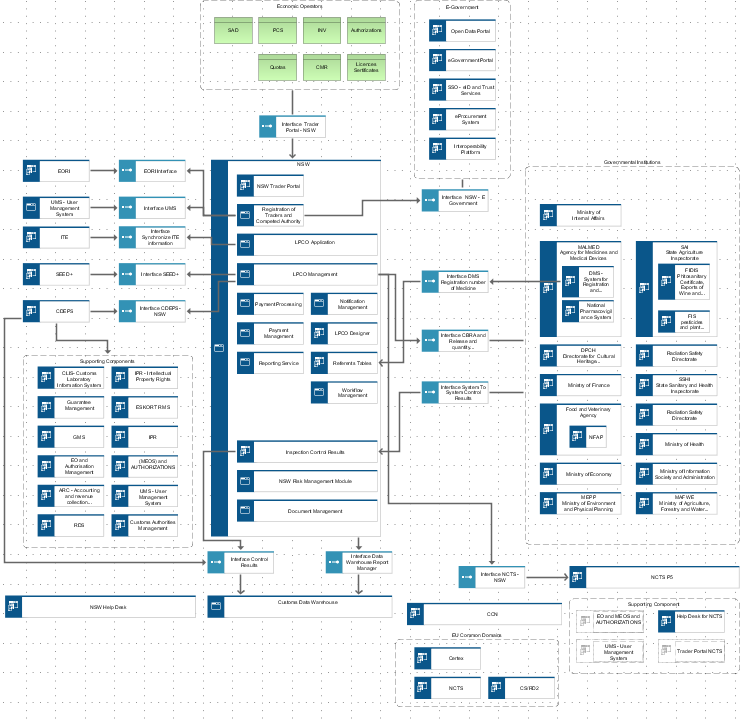
The NSW shall be able to interact and integrate with additional data sources in the supply chain for additional supply chain visibility. Recent development in the Internet of Things (IoT), smart containers, data pipelines, trade data providers, and block chain technologies can provide the NSW with further data, in addition to the regulated and mandatory data submitted by traders. Industry platforms (Traxon CargoHUB17 for air freight, TradeLens18 and INTTRA E2open19 for sea freight), company information providers (Orbis20, Dun & Bradstreet21), import and export data (Altana Atlas22, Datamyne23), tracking services, and various e-commerce platforms can provide additional supply chain data. In this context, the NSW can act as the gateway between various sources of supply chain data and the government. This enables the potential to deliver real time supply chain visibility and additional data for CBRAs in order to improve risk management as well as planning of resources. New data sources can also enable potential trade facilitation measures, where verified data can be made available to NSW stakeholders from the supply chain. Simplified procedures, ensuring authentic identities and documents, tracing goods, and determining origin of goods are potential use cases in this area.

**1.3.3.2. Reporting and Business Intelligence**

Given the above services, the NSW will have access to large amount of data that can be used for enhanced insights about cross-border trade, intelligence, compliance, CBRA performance and statistics.

**1.3.4. Application Architecture**

The application services described in the previous section is organized into and provided by IT-components or ICT-applications in the application architecture. These ICT applications can either be COTS products or a developed system for its particular purpose. The strong recommendation from the project is to choose COTS-solutions as far as possible. The strategy is to use standard products as a base for the NSW solutions regarding user management, workflow, portal, content management, and document management. The purpose of the proposed structure is to further explain how different components and features can be structured and how they interact within the architecture.





*Figure 24: Collaboration Diagram*

**1.3.4.1. Interfaces between NSW and other systems**

|  |  |  |
| --- | --- | --- |
| Interface | Description | Systems |
| Interface  Trader Portal - NSW | Trade Portal Interface serves as a redirection platform, directing users to the appropriate platform within the NSW application for the submission of LPCO, documentation, and other related information | NSW Trader Portal, New Single Window |
| EORI Interface | Through this interface, the Trader Portal and NSW application will collaborate to verify the registration status of an economic operator in the EORI system. When a trader submits an LPCO through the NSW application, the interface will check the EORI number provided by the trader against the EORI system to determine if the trader is registered. If the trader is registered, the interface will retrieve relevant data associated with the trader from the EORI system. This information can then be automatically populated in the declaration, ensuring accurate and consistent data flow. | EORI, Registration of Traders and Competed Authority |
| Interface UMS | The User Management system provides a standardized interface that enables seamless integration with other applications within the NSW ecosystem. This interface allows for efficient communication and data exchange between the User Management system and NSW applications. | UMS - User Management System,  Registration of Traders and Competed Authority |
| Interface Synchronize ITE information | The interface receives information from the Integrated Tariff Environment (ITE), facilitating seamless data integration and communication between the two systems.  The interface connects with ITE to retrieve tariff data, such, classifications, and trade regulations. | ITE, LPCO Application |
| Interface SEED+ | The future NSW should be integrated to the SEED/SEED+ for SPS and other related LPCOs, in addition to issuing certificates and registering the usage (Availability and Quantity Management). | SEED+, LPCO Management |
| Interface CDEPS - NSW | The interface between CDEPS (Customs Declaration and Excise Processing System) and NSW (New Single Window) enables integration and data exchange between the two systems. | CDEPS, LPCO Management |
| Interface Control Results | The interface between NSW (New Single Windows) and Data Warehouse enables integration and data exchange between the two systems sending the Control Results to DWH. | Inspection Control Results, Customs Data Warehouse |
| Interface Data Warehouse Report Manager | The interface between Data Warehouse and NSW (New Single Window) enables integration and data exchange between the two systems for generating reports and statistics. | New Single Window, Customs Data Warehouse. |
| Interface NCTS - NSW | The interface between NCTS and NSW (New Single Window) enables integration and data exchange between the two systems. | NCTS,LPCO Management |
| Interface System To System Control Results | The interface between NSW (New Single Window System) and CBRA (Cross-Border Regulatory Agency) facilitates the reception of control result messages. | Inspection Control Results, Governmental Institutions. |
| Interface CBRA and Release and quantity Management | Through the Release Interfaces, authorized CBRA users can clear consignments from their perspective and the NSW will update and notify the trader about the status. A release notification will be sent to the assigned trader (for example cargo terminal, warehouse operator, transporter or freight for-warder) and to the Customs Administration. | LPCO Management, Governmental Institutions. |
| Interface DMS Registration number of Medicine | These interfaces enable seamless data exchange between the registered medicines in MALMED and the LPCO form. The MALMED system ensures that registered medicines are accurately reflected in the LPCO form, with data retrieved from the MALMED DMS software. | Referent Tables, DMS - System for Registration and Management of Medicines, Governmental Institutions. |
| Interface  NSW - E Government | The interface between the NSW (New Single Window System) and Government Agencies enables the seamless reception of information related to traders, registration, and issuance of LPCO (License for Preparing Consignments). This interface streamlines the exchange of relevant data, ensuring efficient processes for registration and regulatory compliance. | Registration of Traders and Competed Authority, E-Government Services. |

**1.3.4.2. User Management**

When the trader submits registration requests, it is presented in the User Management to authorized NSW registration unit. The information is verified with the national business register, and implemented in the user directory. The approval triggers applicable payment process and notification.

|  |  |  |
| --- | --- | --- |
| BR4.4 | Administration | The system must support the concept of distributed administration. With distributed administration means, an administrator has the authority to only manage users that belongs to a specific organization, CBRAs etc.  The system shall support the following principles:   * The main administrator can authorize administrator privileges to sub-administrator of users belonging to a specific organization. * A sub-administrator can be authorized to manage users in more than one organization. |
| BR4.5 | Authorization | The system must support storage of binary attributes, such as authorization tokens, associated to a  user. The system must use a non-reversible encryption algorithm. |
| BR4.6 | Grouping of Users | The system shall support the concept of grouping users into named user groups. A user group can contain either a list of users or user groups or a combination of these two. |
| BR4.7 | Grouping of Users | The system shall support the concept of grouping privileges into named privilege groups. A privilege  group can contain either a list of privileges or privilege groups. |
| BR4.8 | Roles and Permissions | The system must support that user privileges can be expressed with both a list of individual privileges and a list of privileges groups. |
| BR4.9 | Authentication Method | The system must support the following authentication methods: High-level eID. |
| BR5.1 | Authorization and Privileges | The system shall support the following query methods:   * Get all privileges for a user; and * Is the user authorized for a specific privilege. |

**1.3.4.3. NSW Backend Services**

The business logic is deployed in the backend components. This is where the processing, transactions, storage, and integrations are performed. These are scalable components and applications that communicate with the frontend services for user interaction and store and manage the information models.

**1.3.4.4. EUCDM 5 to EUCDM 6.2 Converter**

The EUCDM 5 to EUCDM 6.2 Converter is a functionality designed for conversion of data from the EU Customs Data Model version 5 (EUCDM 5) to version 6.2 (EUCDM 6.2). This conversion is necessary to ensure compatibility with the latest customs systems and regulations within the European Union.

The primary purpose of the converter is to transform data structured according to the EUCDM 5 specifications into the format specified by EUCDM 6.2. This will enable customs authorities, businesses, and other stakeholders to continue their operations in compliance with the updated EU customs requirements.

In the event that a new version of EUCDM is released during the development process, such as EUCDM 7, the new version must be implemented in the convertor.

The scope of the EUCDM 5 to EUCDM 6.2 Converter includes the following:

· Mapping of data elements from EUCDM 5 to EUCDM 6.2. (or latest version of EUCDM)

· Data transformation and validation.

· Handling of errors and exceptions during conversion.

· Define mapping rules for each data element from EUCDM 5 to EUCDM 6.2, including data type conversion where necessary.

· Implement transformation logic to ensure that data conforms to the structure and standards of EUCDM 6.2. (or latest version of EUCDM)

· Handle mapping for any deprecated or obsolete data elements according to EUCDM 6.2 (or latest version of EUCDM) specifications.

· Validate incoming EUCDM 5 data for completeness and correctness.

· Implement validation checks to ensure that data meets EUCDM 6.2 (or latest version of EUCDM) validation rules

· Define error handling procedures for data conversion errors, including detailed error messages and logging.

· Ensure graceful handling of exceptions and the ability to continue processing after encountering errors.

**1.3.5. Technology Architecture**

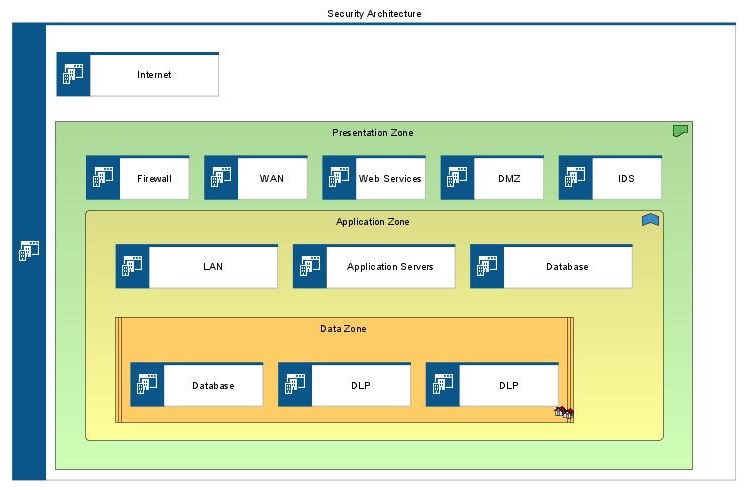
The target technology architecture ensures secure, reliable, and scalable operation of the NSW services and applications. The following are critical considerations based on the existing IT landscape, technology architecture principles, and best practices in NSW deployment:

* Traders interacts with NSW services through the Internet, while system-to-system integrations must be implemented with web service.;
* CBRAs access the NSW using VPN over the Internet for enhanced security of transmissions;
* Email and SMS (Short Message Service) notifications provided to traders and CBRA staff;
* For additional contingency of NSW services, the services should be deployed in a main data center and a secondary data center. The Customs Administration is currently establishing a secondary data center;
* Eliminating single point of failure to the maximum extent;
* Duplicated connections to and between data centers using multiple Internet Service Providers (ISPs) and Wide Area Network (WAN) connections;
* The architecture is based on tiered structure with separation of roles, LAN and security;
* Secured Network Zone concept implementation for elevated security;
* Clustered technology is used to ensure redundancy;
* Storage Area Network (SAN) solutions enable efficient storage and replication of data between the sites;

**1.3.5.1 Security Architecture**

With the necessity of the security, trust, and confidence needed for the national trade transaction and regulatory control, the “Secured Network Zone” concept is the basis of the design.

A “Secured Network Zone” is a dedicated network segment, with a well-defined communication flow to other zones and specific security measures. Three internal zones are proposed, and these zones are nested, i.e. the inner most zone is protected by the surrounding zones as illustrated in the figure below. An internal zone may consist of various subnets and even spanning in several locations.

****

*Figure 25: Security Architecture Diagram*

The zones are:

* External (white) zone – accessible for everyone where services such as Internet access through guest wireless connection is offered.
* Presentation (Green) zone – this zone is behind the first protection layer and hosts the web servers and other presentation services.
* Application (Yellow) zone – in the application zone, the application servers and non-sensitive databases are located here.
* Data (Orange) zone – this is where sensitive data such as payment related information are stored.
* The security provisions should have full Inspection Firewall, Anti-Malware, Deep Packet Inspection with Host Intrusion Prevention System (HIPS), Integrity Monitoring, Application Control, behavior monitoring, Ransomware protection, and recommended scan in single module or an in single agent.
* The Management server should have an option to install server agents for centralized management for data center environment. Furthermore, the following requirements should be adopted:
* It should provide virtual protection which shields vulnerable systems that are awaiting a security patch i.e., automatically shields vulnerable systems within specified time.
* It should support encryption for all messaging components during transmission and local store of data. Local Store encryption shall be customizable for various levels of encryption required. Encryption shall not mean only password protection.
* It should provide inbuilt support for digital signature and Public Key Infrastructure (PKI) based on industry standards, such as X509 v3.
* It should provide support for simple, flexible administration via a web browser and thick client.
* It should support TLS (Transport Layer Security)/SSL (Secure Sockets Layer) encryption with 256/512/1024 bit key.
* It should be able to perform Anti-Relay enforcement on incoming connection, to allow only the clients’ domains.

**Security**

The System should have security capability which will provide the basic authentication and authorization of the security model relating to the access and operations to resources. It therefore prevents unauthorized access to the other systems and exposed resources, and shall guarantee integrity and confidentiality of the exchanged data.

Not only are those capabilities independent from the level of security of the underlying transport networks, but are also enforced at the message level, between the resource requestors and the resource owners, preventing direct and uncontrolled accesses to the resource endpoints.

Security enforcement addresses the following aspects:

* Authentication – Ensures that resources are only accessible by identified and authenticated Users.
* Authorization – Ensures that resources are only accessible to authorized Users. It is supported by a flexible authorization model.
* Integrity – Ensures that exchanged data is not altered in an unauthorized or undetected manner. It is supported by the cryptography capabilities relating to digital signatures.
* Confidentiality – Ensures that exchanged data is only readable to those authorized. It is supported by cryptography capabilities relating to the encryption mechanisms.
* Non-repudiation – Provides evidences that actions or events have taken place, so that the events or actions cannot be repudiated later. This is supported by the audit services and the use of digital signatures.
* Accountability – Guarantees that all operations carried out by Partners’ Users or systems on resources can be identified and that the trace to the author and the operation is persisted.
* Authenticity – Ensures that the identity of a subject or resource is the identity claimed. It applies to individuals (Users) and systems. This is supported by the authentication services and the use of digital signatures.

**Authorization Model**

The conceptual Gateway authorization model is built on 2 dimensions and serves as a general model both for physical end-users and technical Users (i.e. systems).

* Organizational: a User is assigned one or more Roles;
* Behavioral: a Role grants a User one or more Permissions. These permissions are executed on a specific resource.

The flexibility of the authorization model by implementing the notion of Roles and Permissions, ensures that complexity is hidden to end-users and administrators interacting with the organizational dimension. The administrators only manage the assignment of Roles. Role definition is done via the UMS (User Management System).

The behavioral dimension on the other hand enables Service Owners (NSW, CDEPS, and NCTS) and resource administrators to create the security elements and create relationships between them, to eventually grant a specific Permission to a User. In this sense, they will configure Resources, correlate these into a Permission and map these to one or more Roles. Ultimately, these Permissions are validated when the authorization is enforced via an authorization Policy.

**Policies**

Gateway security components enforce coarse-grained authorization policies to validate whether a User has the right Permission to execute a specific operation on a specific resource. Authorization policies are based on Permission, identity attributes and contextual information. These are expressed via RBAC and contextual policies.

**Role-based access control (RBAC)**

In an RBAC model, Roles are the foundation to perform authorization. A User that is trying to reach a certain resource will need to have the correct Role in order to gain access. E.g. only Users that are assigned a specific Role are allowed to access a web application. An RBAC Policy validates whether the User has the Role or not. Authorization is granted only in case there is a match. Otherwise, an error is sent back to the User and the request is not authorized.

**Contextual policies**

Policies also leverage contextual elements, e.g. limit application access between business hours only or limit access from a certain IP range.

**Authentication and Authorization Service**

These should be reused from UMS (User Management System).

**Encryption and Decryption Services**

The encryption and decryption capabilities are used by the system to ensure confidentiality by encrypting information so that only authorized parties can read its content.

**Digital Signatures service**

The digital signatures capability demonstrates the authenticity of the sender and the integrity of the message. This means that the receiving parties can trust the message itself and accept the claimed identity of the sender.

**Data Transformation Service**

Data format transformation allows transformation between two different data formats (e.g. a flat file into XML). This transformation from one format into another is executed in a standardized way by using specific transformation algorithms.

**Validation Service**

Validation capability allows validation of messages on the system to their data model e.g. an XML message (either the header only or the full message) to its XSD.

**Routing Service**

The Routing Services enables retrieval of routing information, such as destinations and bindings, based on the header or body of a message. Content-based routing is not implemented using the Routing Services.

The NSW Frontend shall provide an interface for submitting declarations using an online form. This will be limited volumes as the majority of the declarations will be submitted through Electronic Data Interchange (EDI) integration. Data will be submitted to the Declaration Gateway component in the NSW Backend.

Steps:

An integrated data set as referred to in Article 13 (3) of Regulation 2022/2399 for establishing the EU Single Window Environment for Customs is submitted by the trader;

Based on the information in other CBRA's data set with the elements solely to national legislation other than customs which is part of the integrated data set, NSW creates and sends a request for issuing the LPCO to the appropriate CBRA;

After receiving information about the issued LPCO from the CBRA, NSW updates the information about the LPCO and send the declaration to the customs system;

NSW processes the request for usage of the LPCO that is received from the Customs Information System if the LPCO is registered in NSW or transforms and dispatches the information exchanges between Customs Information Systems and CBRA’s systems. NSW exchange information result with Customs Information Systems;

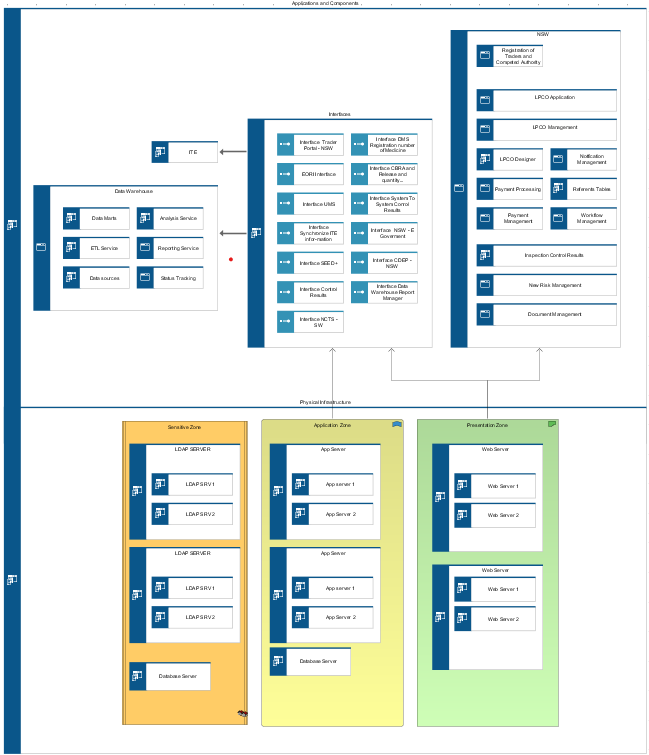
NSW processes the goods clearance information received from the Customs Information Systems if the LPCO was registered in NSW, or transforms and dispatches the goods clearance information to CBRA’s systems;

If the LPCO was issued in the NSW, based on the information in the request for usage of the LPCO, the goods clearance information and/or intervention information (if any), the NSW performs the quantity management and informs the Customs Administration about the Quantity Management Outcome. In case when the LPCO was issued in CBRA’s system, the NSW transforms and dispatches the Quantity Management Outcome received from the CBRA to the Customs Administration;

Customs Administrations is notified of Quantity Management outcome.

**1.3.6. Physical Application Deployment View**

The following figure illustrates the recommended physical design and how the different applications are recommended to be deployed on the different servers.



**

*Figure 26: Physical Application Deployment*

**1.3.7. Network and Infrastructure Architecture**

The network and infrastructure architecture defines the physical environments and assets in terms of data centers, networks and servers. It is based on the operational requirements, existing environments and the security zone principles.

**1.3.7.1. External Zone (the White Zone)**

The physical design of the external zone of the NSW is based on the network infrastructure provided through ISPs. The physical communication links are used to connect the NSW, traders and CBRAs. With the requirements of high availability of these communication channels, the following must be ensured:

* For the Internet connectivity, both a primary and secondary link must exist to be able to guarantee the availability requirements.

**1.3.7.2. Presentation Zone (the Green Zone)**

In the presentation layer, two sub-zones are recommended here, namely the Demilitarized Zone (DMZ) and the VPN-connected staff area. The DMZ is a network zone inserted as a "neutral zone" between an NSW’s private network and the outside public network. It helps to prevent outside users from getting direct access to the internal servers that have several confidential data. This DMZ provides a more secure environment to the firewalls and effectively acts as a proxy server as well.

For the VPN services, one of the following two options are recommended:

* For the individual VPN, the VPN services bundled inside firewalls should be deployed.
* For the site-to-site VPN, separate VPN equipment to be plugged into the presentation zone switches should be established.

The web portal servers running in the presentation zone needs to be based on two servers running in load-balanced configuration.

**1.3.7.3. Application Zone (the Yellow Zone)**

The application zone hosts the application servers and database management systems (DBMS) in the NSW. Servers in this zone must not be connected directly from the public or from the external zone. For optimal DBMS functions, high-speed storage devices must be used to guarantee performance requirements.

The application servers running in the application zone shall be based on four servers running in load-balanced configuration.

**1.3.7.4. Sensitive Zone (the Orange Zone)**

The most obvious characteristic of this zone is that data stored inside are sensitive and must be well protected. All services in this zone need secure protocols (such as HTTPS (Hypertext Transfer Protocol Secure), Secure Shell (SSH), etc.). Sensitive data must be stored in some encrypted forms. Encrypted file systems will ease the implementation process, and the guideline as recommended in the “acceptable encryption policy” section shall be enforced. The most important functions of this zone are syslog service and DBMS/LDAP services, handling sensitive data, such as audit/syslog and user authentication. All storages in this zone need to adopt the encrypted technology or other secure data encryption.

The syslog/database servers and user repository/LDAP servers running in the sensitive zone needs to be based on two servers running in a load-balanced configuration.

**1.3.7.5. Non-Production Servers**

The non-production servers include the development and testing environment, as well as connection to the Customs data warehouse, BI, and analytics solution.

The development and testing environment can be hosted on two virtual servers on separate physical server.

**1.3.7.6.** **Cybersecurity Requirements**

Implementing robust cybersecurity requirements and policies for NSW is crucial to safeguard sensitive data, ensure the integrity of trade processes, and protect against cyber threats. Below are presented cybersecurity requirements and policies for the NSW System:

* **Access Controls**: Implement strict access controls to restrict system access based on roles and responsibilities, including multi-factor authentication to enhance user authentication processes.
* **Data Encryption**: Encrypt sensitive data during transmission and storage to protect against unauthorized access with the use of strong encryption algorithms and regularly updating encryption protocols.
* **Security Awareness Training**: Provide cybersecurity training to NSW personnel to enhance awareness of potential threats and best practices, including specific training on social engineering, phishing, and other common attack vectors.
* **Network Security**: Implement firewalls, intrusion detection and prevention systems, and other network security measures. Update and patch software and systems to address known vulnerabilities.
* **Secure Software Development**: Adhere to secure coding practices in the development and maintenance of NSW software. Conduct security assessments and code reviews.
* **Vendor Security**: Assess the cybersecurity practices of third-party vendors providing services or software for the NSW. Include cybersecurity requirements in vendor contracts and agreements.
* **Documented Policies and Procedures**: Develop and maintain comprehensive cybersecurity policies and procedures for the NSW.

Solution will utilize current Customs perimeter security: “Cisco Firepower 2110 NGFW” and current SIEM and security solutions “IBM Guardium”.

Also, for backup and DR current backup software -VEEAM will be used (upgraded with additional licenses for single-window workloads). New DR will be built as place for PASIVE (replicated PRIMARY and powered off) workloads (virtual machines).

***1.3.8. Hardware Architecture***

**1.3.8.1. Current Hardware architecture in the Customs Administration**

The Customs Administration ICT infrastructure includes a Central Office with Primary datacenter, a Disaster Recovery datacenter and 43 Customs offices on separate locations communicating using IP-IP VPN tunnels and EIGRP Routing protocol configured on all 44 Cisco ISR4221/K9, ISR4431/K9 and ASR1001X Routers

The equipment, hardware and software used in existing Datacenters are:

* **Servers**

IBM Power System S922 - for virtualization of Database servers and a backup server.

Fujitsu PY RX2540 M4 – for virtualization of App and Web servers.

Dell PowerEdge R640 – for virtualization of App and Web servers.

* **Storages**

NetApp AFF A220

NetApp FAS2750

IBM FlashSystem 5100

IBM FlashSystem 5030

* **Networking**

Cisco Firepower 2110 NGFW

Cisco Catalyst 9500 48-port – core switches

Cisco Catalyst 9300 24-port – top-of the rack switches

Cisco MDS 9148 – FC switch

CiscoASR1001X Routers

Cisco ISR4221, ISR4431

* **Tape library**

Fujitsu LT260-I

* **Backup software**

IBM Spectrum Protect Suite

Veeam Availability Suite Enterprise Plus (Backup & Replication)

* **Virtualisation software**

VIOS

Hyper V

OVM

Vsphere

* **Operating system**

AIX Operating system

MS Windows Server

Oracle Linux

Appliances

* **Database software**

Oracle Database Enterprise Edition + RAC

IBM Lotus Domino

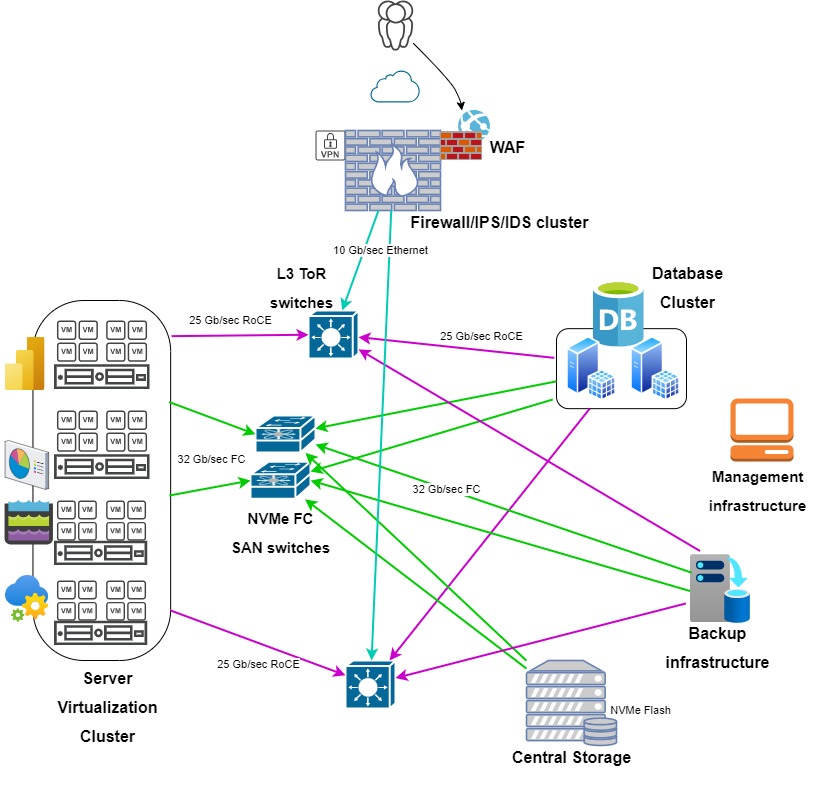
MS SQL server

* **Security tools**

IBM Guardium

SIEM

**1.3.8.2. Hardware Architecture**



*Figure 27: Hardware Architecture*

General Description:

• “ToR Switch" refers to the "Top of Rack" network switch located at the top of each rack of servers.

• "External Network" represents the connection to the broader network infrastructure, including connections to other data center resources, the internet, etc.

• "Compute Performance Node" refers to an individual server with processing power, memory, and local storage. These are the individual servers within the cluster that provide processing power for running applications and virtual machines. Each compute node typically includes multiple CPU cores, RAM, and local storage

• “Storage”: In a dual-SAN network storage is typically provided by aggregating the local storage resources of the compute nodes. This creates a distributed storage pool that can be managed collectively. Data redundancy and protection mechanisms, such as replication and erasure coding, are often implemented to ensure data integrity and availability.

• “DRS node” Disaster Recovery Site control back up

• “Out-of-Band Management” The primary benefit of an out-of-band management interface is its availability when the network is down, a device is turned off, in sleep mode, hibernating, or otherwise inaccessible.

• “Networking”: The network infrastructure connects the compute nodes and facilitates communication between them. It's important for efficiently moving data between nodes, supporting virtual machine migration, and enabling external connectivity. The lines connecting the compute nodes to the ToR switches represent the networking connections that enable communication between nodes.

• “Virtualization”: Server hypervisor solutions leverage virtualization technologies to abstract and manage the underlying hardware. This allows multiple virtual machines (VMs) to run on a single physical server, maximizing resource utilization.

**1.3.8. 3. Other Architecture Information**

New customs core system must be based on industry standard X86 servers and/or RISC architecture highly available, enterprise levels of reliability and availability and must not have a single point of failure.

All workloads must be virtualized and built around on-prem data center capable virtualization software/platform, so they can be decoupled of the underlay (physical) proprietary hardware vendor’s technologies. Offered solution must be based on standardized components: hypervisor, centralized storage and VMM -Virtual Machine Manager (Central administration console) covered with licenses for all offered virtualization hypervisor hosts (x86 servers). Solution must be capable to be expanded with additional network and security (micro-segmentation of the network and security) in the future.

To build high available system, equipment will be procured on primary site and DR site.

Solution must be divided in two clusters on primary location: performance (for SQL, BI, DWH etc workloads) and General Compute (for infrastructure and application workloads).

All server hypervisor nodes must be attached over FC/NVMe links to the central external storage, with has a minimum of 75 TB RAW capacity on disks, shared over the SAN.

Cluster on DR site must be also server hypervisor.

All Single Window Project workloads (up to 50 virtual machines) must be safely back up and replicated to DR site. This requires a separate physical backup server with local backup storage for backup repository and backup software. Customs already use VEEAM Software for backup virtual machines and solution must upgrade current backup system with licenses for backup additional 50 VM’s. Licenses supplied with this server hypervisor solution must be perpetual (only subscription support is extended), and can be used on any other hardware in the future.

All new servers will be equipped with minimum 10/25GbE ports, and TOR switches will have 40/100Gbe uplinks. Offered network equipment required below must be compliant with existing solutions and protocols. It is not expected to introduce any new protocols on devices in the network not affected by this supply.

Back up Infrastructure is located in the Customs Administration primary site. This back up and DR infrastructure will be based on the ACTIVE TO PASSIVE architecture. This structure includes a combination of both active (on primary site) and passive components (on DR site). The specific mix of active and passive elements will depend on factors such as the organization & apos’s budget, available resources, criticality of systems, and recovery time objectives (RTOs) and recovery point objectives (RPOs) defined during the planning process. By leveraging both active and passive components, organizations can enhance their ability to recover from a disaster efficiently and minimize downtime and data loss.

1.4 Systems Administration and Management Functions Required to be met by the Information System

**1.4.1 The Supplier must make sure that all components have (archiving procedures, configuration management, version control, data management, fallback procedures, problem tracking, and audit trail).**

All components need to keep a log of exchanged information, for relating an error to the information that has been exchanged and to solve any disputes regarding exchanged information. This log needs to contain:

* The content of the messages that have been exchanged (either sent or received), thus including all steering information specified by the Data Group, e.g. interchange reference, interchange addresses, message reference, ID number, and functional message type;
* A timestamp showing at which date and time the Information Exchange (IE) has been prepared for sending or has been received;
* All messages before those are sent, in the format used and with the related timestamp;
* The result of application processing of the message, including all detected errors and any state change triggered by the message. If any error has been detected, the message will be viewed as not being processed by a National Application System;
* A timestamp showing the date and time at which the Information Exchange (IE) has been exchanged. At reception, the timestamp is the date and time of receiving the Information Exchange (IE). At sending, it is the date and time of delivering the message to the dispatch service (messaging service);
* The name of the queue to which the message has been submitted.

1.5 Performance Requirements of the Information System

**1.5.1.1 Availability of Non-Functional Requirements**

The table below provides the list of required non-functional requirements

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_AVA\_0001 | **Periodic Maintenance Downtime** | The system must be designed in a way so that it does not need periodic maintenance that results in significant downtime. | |
| NSW\_AVA\_0002 | **Trade Availability Requirement** | The maximum availability that application for the trader might require and hence the maximum availability that the TA has to enable is 99% for a 24/7 period. Initial accepted application availability is 99.9% during business hours and 98% outside business hours, and it should evolve to target availability 99.9% 24/7. | |
| NSW\_AVA\_0003 | **Hot Deployment Support** | The TA must provide means for application hot deployment support, meaning that installation of a new application version will not result in application down time. | |
| NSW\_AVA\_0004 | **Minimal Manual Intervention in Recovery** | After a partial or a total failure of an internal or external component the system must be able to recover. The manual intervention must be minimal. | |
| NSW\_AVA\_0005 | **Failure Containment** | In case of the failure of one component the TA must minimize the effect on other components which are not directly related to the failed component (failure containment). | |
| NSW\_AVA\_0006 | **Application Deployment Rollback** | The TA must provide means for application deployment rollback. | |
| NSW\_AVA\_0007 | **Downtime during Deployment** | Downtime during the deployment of the new application version must be minimal. | |
| NSW\_AVA\_0008 | **Failure of Database** | The system must guarantee the following after a recovery of database:   * no loss of transactional data; * business data must remain in consistent state; * immediate availability of database after a failure; * no impact on application server components, i.e. transparent failover is required. | |
| NSW\_AVA\_0009 | **Presentation Layer** | The system must guarantee at the presentation layer the continued processing of all user requests that may have been initiated before the failure, i.e. transparent failover is required, without a need to re-login and re-submit of the request. | |
| NSW\_AVA\_0010 | **Asynchronous Layer** | At the asynchronous layer the system must guarantee the following after a failure:   * no message should be lost; * ability to process queued messages right after a failure; * continued processing of messages that were in progress at the moment of a failure, i.e. failed messages need to be re-processed. | |
| NSW\_AVA\_0011 | **Ability to Recover by Resubmitting Failed Request** | The system must guarantee at the presentation and web service layers the ability to recover by resubmitting the failed request by the end user, right after a failure. | |
| NSW\_AVA\_0012 | **Failure of Asynchronous Communication Component** | The NSW must guarantee the following after a failure of the asynchronous communication component:   * no message should be lost; * messages and JMS messages must remain in a consistent state; * no duplicate delivery of the same message after a failure; * ability to process queued messages right after a recovery; * continued reprocessing of messages that were in progress at the moment of a failure, i.e. failed messages need to be re-processed. | |
| NSW\_AVA\_0013 | **Failure of HTTP Communication** | The NSW must guarantee the following after a failure of HTTP communication:   * Ability to process a new request right after a failure; * Continued processing of all user requests that may have been initiated before a failure, i.e. transparent failover to another application server is required, without need to relog in and re-submit of the request. | |
| NSW\_AVA\_0014 | **Failure of a Batch Service** | The system must guarantee the following after a failure of a batch service:   * no batch jobs should be lost; * recovery mechanism for batch jobs that were in progress at the moment of a failure.   This might be either automated or manual process. | |
| NSW\_AVA\_0015 | **Backup and Restore Procedures** | The system components must be capable of integrating with backup and restore procedures. The preferred solution is the current infrastructure provider backup/restore. | |
| NSW\_AVA\_0016 | **Availability Requirement for Office** | The initially accepted application availability is 99.9% during business hours and 98% outside business hours, and it should evolve to target availability 99.9% 24/7. | |

**1.5.1.2 *Access Control and Connectivity Non-Functional Requirements***

The table below provides the list of Access Control and Connectivity non-functional requirements.

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_ACC\_0001 | **Control of Access Rights** | Possibility to control access rights, based on the authority of the user. |
| NSW\_ACC\_0002 | **Access Authentication** | Every interaction with system, must be under identification, authentication and authorization control.   * The identification establishes the user or IT system identity; * The authentication validates the user credentials; * The authorization determines: which users or IT systems have access to what function.   The system shall not allow a user to login by bypassing the identification and authentication procedures. |
| NSW\_ACC\_0003 | **Type of Users** | The following type of users of the system, must be supported:   * NSW users and NSW IT systems; * Optionally, Trade users can have access. |
| NSW\_ACC\_0004 | **External Access** | The system might be accessible to external users and external IT systems, only through an additional security layer, for example provided by HTTP reverse proxies services. |
| NSW\_ACC\_0005 | **Password** | Password shall not be stored as a clear-text. OR Passwords shall only be stored as password hashes. |
| NSW\_ACC\_0006 | **Security Checks** | The security checks and operations shall be distinguished from the business operations and logic. The security policy should be easily modified without affecting the business operations. The security policy consists of the security measures related to identification, authentication and authorization. |
| NSW\_ACC\_0007 | **Single Authentication** | The system shall authenticate the users once and grant access for any subsequent business operations within the same session in a transparent manner (i.e. not requesting every time the user credentials). |
| NSW\_ACC\_0008 | **HTTP Proxy for Outbound HTTP Requests** | The system must be capable of using HTTP proxy for outbound HTTP requests. |
| NSW\_ACC\_0009 | **Identical Behavior** | The behavior of the system must be identical whether direct or proxy connection exists between the client or IT system, independently of the number of proxy or reverse proxy servers participating in the communication. |
| NSW\_ACC\_0010 | **Reverse Proxies** | The TA must provide support for deploying into environments making use of HTTP reverse proxies. This includes such things as proper handling of absolute URLs (e.g. in redirects) and page expiration for dynamic content. |

**1.5.1.3 Performance Requirements for Software**

The table below provides performance requirements of the Information System.

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_PER\_0001 | Average Response time | The average response time for page loads should be less than 2 seconds. This requirement aims to ensure that the application is highly responsive and provides a smooth user experience. By keeping the response time below 2 seconds, users can quickly interact with the system, access information, and perform tasks without experiencing frustrating delays. |
| NSW\_PER\_0002 | Throughput | The application should be able to handle at least 1000 concurrent users. This requirement focuses on the system's ability to handle many simultaneous users without significant performance degradation. By ensuring a high throughput capacity, the application can efficiently process user requests, maintain responsiveness, and avoid bottlenecks or slowdowns during peak usage periods. |

* + - 1. **Audit Non-Functional Requirements**

The table below provides the list of Audit non-functional requirements.

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_AUD\_0001 | Audit Trail of Data Changes | The NSW must keep an audit trail of all data changes: what data was affected, the kind of changes (creation, update or deletion), who applied the changes and when. In case of an update, the initial and the new state of the changed data must also be recorded. In case of a delete, there is a difference between a regular deletion and a physical deletion. For physically deleted data, the audit trail shall only contain a limited set of data: the reference of the deleted record, who deleted it and when. For the regular deletion, the whole data record is audited. The auditing component must support both modes. |
| NSW\_AUD\_0002 | Audit Trail Data Exchange Storage | The audit trail of all data exchanges over the CCN between the MS IT systems must be available for at least 5 years. |

* + - 1. **Data Integrity Non-Functional Requirements**

The table below provides the list of Data Integrity non-functional requirements.

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_DIN\_0001 | Administrator Inspection | The messages that could not be processed must be available to the administrator for inspection. After the inspection the administrator can decide to retry or discard the message. |
| NSW\_DIN\_0002 | Data Consistency | The NSW must preserve the consistency of all data. All data must be stored persistently using transactions. |
| NSW\_DIN\_0003 | Data Protection | The NSW must protect the data against modification and loss during transfer between the client part and the server part and when exchanging data with other systems. |
| NSW\_DIN\_0004 | Duplicate Message Handling | Messages must be delivered exactly once. Due to network and the client, it is possible to receive duplicate messages which should be handled by the application. |

* + - 1. **Implementation Non-Functional Requirements**

The table below provides the list of implementation non-functional requirements.

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_IMP\_0001 | Automated Build of Delivery Package | Build of the delivery package must be fully automated and include following steps:   * a source code and other artefacts checkout from the source control system; * a source code build; * a delivery package creation.   Ideally, it must be possible to automatically test the package (i.e. verify that it is possible to create installation from the delivery). |
| NSW\_IMP\_0002 | Automated Installation Procedure | The NSW installation procedure must be fully automated. |
| NSW\_IMP\_0003 | Delivery Package of Release | As a result of new application release, a delivery package must be produced. The delivery package includes application source code, all third-party libraries and additional files required to build installation package. It also contains all application documentation. The structure of the delivery package must be common across applications. |
| NSW\_IMP\_0004 | Identification of Exact Version | It must be possible to identify the exact version (including hot fix) of the NSW during the whole deployment lifecycle:   * a delivery package; * an installation package; * a deployed application. |
| NSW\_IMP\_0005 | Installation Package | As a result of the NSW build, installation package must be produced. The Installation package contains artefacts ready to be installed on an environment. |
| NSW\_IMP\_0006 | Smoke Test Scenarios | Smoke test scenarios must be 100% automated. Smoke tests are a subset of the test cases that cover the most important functionalities of the NSW. |
| NSW\_IMP\_0007 | Unit Testing | Unit tests must be run during delivery package build and unit test report must be automatically generated. Unit test coverage goal is application specific, but it should be avoided setting goals lower than 80%. |
| NSW\_IMP\_0008 | Integration on Test Environment and Automated Test Execution | A continuous integration practice must be applied for the NSW installation on the test environment and automated test execution. |
| NSW\_IMP\_0009 | User Interface | User Interface must comply with CA other services. |

* + - 1. **Installation Non-Functional Requirements**

The table below provides the list of installation non-functional requirements.

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_INS\_0001 | Continuous Integration Practice | Continuous integration practice must be applied for NSW installation package build. |

* + - 1. **Logging Non-Functional Requirements**

The table below provides the list of Logging non-functional requirements.

| **Reference ID** | **Name** | **Description/Definition** |
| --- | --- | --- |
| NSW\_LOG\_0001 | Authentication Log | The NSW must provide possibility to log all authentication or authorization attempts whether they are successful or not. |
| NSW\_LOG\_0002 | Availability Period of Technical Logs | Technical logs must be available for configurable period of time. |
| NSW\_LOG\_0003 | Central Storage of Logs | The logging component must support centralized storage for logs. |
| NSW\_LOG\_0004 | Dump Messages | TA must provide possibility to dump the messages. There is no need to filter messages based on the origin or type, all exchanged messages are dumped. |

* + - 1. **Monitoring Non-Functional Requirements**

The table below provides the list of monitoring non-functional requirements.

|  |  |  |
| --- | --- | --- |
| **Reference ID** | **Name** | **Description/Definition** |
| NSW\_MON\_0001 | Integration with External Monitoring Component | The NSW must enable integration with the external (infrastructure provider) monitoring component. |
| NSW\_MON\_0002 | Metrics | The following metrics must be reported:   * Common metrics exposed by the application server such as CPU load, heap usage, IO activity, JMS Queue (number of pending messages), JDBC data sources (number of free connections), number of threads; * Health checks where components should check that they are able to perform the necessary functions. The TA must provide framework to simplify implementation of health checks on the component level.   Exact checks are component specific and should be defined at design time of the component. Furthermore, Business Activity Monitoring must be predefined and implemented in the monitoring component. |

* + - 1. **Ownership of Assets Non-Functional Requirements**

The table below provides the list of Ownership of Assets non-functional requirements.

|  |  |  |
| --- | --- | --- |
| **Reference ID** | **Name** | **Description/Definition** |
| NSW\_OOA\_0001 | Data Masking Strategies | Data masking strategies and techniques must be used for production data before they are sent for use in non-production environments. Data masking strategies and techniques will obscure or depersonalize specific data within a database table or a flat file ensuring data security is maintained and customer information is not leaked outside of authorized environments. The data masking algorithms are applied across multiple tables, applications and environments so referential and business integrity will always be maintained. This allows testing and development teams to carry out project work safely and efficiently. |
| NSW\_OOA\_0002 | Data Ownership | The owner of data is holding the responsibility of the data quality. The CA is normally owner of all reference data and of all business data related to customs operations. |

* + - 1. **Scalability Non-Functional Requirements**

The table below provides the list of Scalability non-functional requirements.

|  |  |  |
| --- | --- | --- |
| Reference ID | Name | Description/Definition |
| NSW\_SCA\_0001 | Maximum Size of Messages Exchanged via CCN | The NSW must be designed to support maximal size of messages exchanged via queues. This is a configurable value, so there should be no dependency on the current maximal size of the message. |
| NSW\_SCA\_0002 | Multiple Users | The NSW must allow concurrent users to work, while guaranteeing the consistency of the data. An action by a user should not invalidate another user's data without at least notification. |
| NSW\_SCA\_0003 | Scalable Architecture | The NSW must be architected to horizontally scale including increased number of users and increased transaction and data volume without changing technical architecture (the underlying infrastructure architecture will probably change). The amount of messages exchanged via network increases by 30% annually. This statement does not imply that the architecture must support 30% annual increase because messages are distributed across applications, environments, etc. But it indicates that the architecture must be scalable. |
| NSW\_SCA\_0004 | Split Messages that Exceed Size | The NSW must be able to split messages sent to the Network if a size limit is exceeded. The size limit is equal to the Network message size limit, depending which limit is lower. |

* + - 1. **Usability Non-Functional Requirements**

The table below provides the list of Usability non-functional requirements.

|  |  |  |
| --- | --- | --- |
| **Reference ID** | **Name** | **Description/Definition** |
| NSW\_USE\_0001 | Multiple Users | The new system must allow several users to work simultaneously, while guaranteeing coherence. |
| NSW\_USE\_0002 | Textual Data | It must be possible to enter textual data in the interactive client any present or future official language of the EU using [UTF-8] encoding. |
| NSW\_USE\_0003 | User Interface Uniformity | User Interface should be uniform for the end users (not necessary for administrators). |

C. Service Specifications – Supply & Install Items

2.1 System Analysis, Design and Customization/Development

**2.1.1 The Supplier MUST perform the following Analysis and Design activities using a formal system analysis/development methodology with the following key activities and design deliverables.**

2.1.1.1 Validation and Conformance: Business and system specifications, already developed during the stage of Blueprint and Clarification of requirements that must adhere to in order to be considered compliant with the requirements and specification.

2.1.1.2 Detailed Analysis: Detailed analysis must include the requirements gathered during the requirements analysis phase to ensure the requirements are refined, analyzed, and documented in more detail.

* Develop use cases: Use cases are detailed descriptions of how a user interacts with the system to accomplish specific tasks. Use cases help to identify the functional requirements of the system and provide a detailed understanding of how the system will be used.
* Analyze the requirements: The next step is to analyze the requirements identified during the requirements analysis phase. This involves breaking down the requirements into smaller, more manageable units and documenting them in detail.
* Define system processes: System processes refer to the steps involved in performing specific system functions. The detailed analysis phase involves identifying and documenting the processes involved in each system function.
* Develop data models: Data models are representations of the data used by the system. The detailed analysis phase involves developing data models to describe the structure, relationships, and constraints of the data.
* Design user interfaces: User interfaces are the mechanisms through which users interact with the system. During the detailed analysis phase, user interfaces are designed based on the use cases and requirements identified.
* Develop system architecture: System architecture refers to the overall structure and organization of the system. During the detailed analysis phase, the system architecture is designed based on the requirements and data models.

2.1.1.3 Physical Design: Creating a high-level system architecture design that meets the already defined requirements.

* Defining the functional components of the system and their interfaces
* Creating a detailed design of each component and its interactions with other components
* Creating a set of design documents and specification
* Verifying and validating the design through simulation or other means
* Create a robust and scalable system that meets the needs of its users and stakeholders. It involves balancing various design considerations such as performance, maintainability, extensibility, and usability.
* Uses Cases and design tools.

2.1.1.4 Prototype Development: Develop Initial Prototype (an early approximation of a final system or product) which will be tested, and then reworked as necessary to establish a foundation on which the complete system or product can then be built.

* + 1. **The Supplier must review requirements and develop detailed technical specifications.**

Within this activity, the Supplier shall lay foundation for all further design and implementation activities. All business functional and non-functional technical requirements should be reviewed and redefined if necessary. The requirements may be split into manageable chunks (per iteration, per system, per component or application).

For the New Single Window development and implementation, the Supplier must take in consideration the Business Process Models developed by other contractors working on the same project (such as the management support project), and should work in close collaboration with them. This includes the architectural, testing, technology specifications that need to be agreed within the teams, and with the approval of the New Single Window Working Group.

Within the bidding document (offer) part of the bid the Supplier must show a proposed model of business and technical services required for Single Window with associated supporting services and to be re-used in future also for other Customs systems, recommended with a true Service Oriented Architecture and Business Process Management technology.

* + 1. **The Supplier must define the practical High Level Architecture design of NSW based on the proposed High Level Architecture in this document.**

Within this activity the Supplier has to lay the technical foundation for all implementation tasks. The Supplier should define the practical high level architecture (models) of the chosen technology and ABB components and plan to implement them for the three system environments on the existing platforms of the IT system. The high level design (models) should present all components and the interaction between them. The scope for NSW Project does provide costs of purchase of hardware and software license fees.

Within this activity the Supplier must also focus on minimization of multiyear Total Cost of Ownership for the Single Window to operate, maintain, upgrade and further develop the Single Window and Customs IT system and related developments. The TCO analysis drafted for the bid should be further developed by the Supplier with confirmed cost and human resource estimates. This analysis will be used by the Single Window Team to credibly support budget and systematization planning for the Ministry of Finance.

* + 1. **The Supplier must prepare the testing documentation (TEST Strategy, FAT design, Implementation of Regression Testing and Release Management).**

The Supplier should prepare a test strategy document and the test design specification covering all test cases, test scenarios, for the whole testing cycles including the unit testing, integration testing, FAT, SAT, regression and the test tools. The testing documentation should be ready before the system is developed. The Supplier will iteratively conduct Factory Acceptance Testing prior to the delivery of the SBBs and ABBs within the pre-production environment. The Supplier will install the architecture building blocks and service containers to Testing Environment for SAT (Site Acceptance Testing). To enter SAT activities fully positive results from Factory Acceptance Testing of the said ABBs and service containers should be presented to the Beneficiary accompanied with each delivery and installation signed off by a certified Quality Auditor on behalf of the Supplier.

* + 1. **Three (3) Groups Processing Models**

The processes described above have been recently re-engineered for greater efficiency and for compliance with the intended NSW platform.

The three common processing models were identified. TO BE Models for individual processes were standardized in alignment with these models.

* **Group 1: NSW processed Stakeholder –** Workflow fully processed on NSW from application to approval(s) and through to issue of final outputs. Data interchange with ministry/agency system may be facilitated, largely NSW sending relevant data to external systems
* **Group 2: HYBRID processed Stakeholder** – Approval workflow is processed partially on NSW, partially on ministry system(s). This model features two-way data interchange between the systems each updating the other at relevant processing stages. This model features i) application on NSW ii) ministry/agency processing on internal systems iii) data interchange with NSW (notifications) at predefined processing touchpoints iv) outputs passed from internal system to NSW) applicant accesses electronic documents including applicable licenses and certificates through NSW**. E.g. Food and Veterinary Agency and Ministry of Internal Affairs**
* **Group 3 – Ministry/Agency processed NSWs** – This model features i) application on NSW ii) ministry/agency processing on internal system iii) applicant accesses electronic/paper documents including applicable licenses and certificates through ministry/agency. **E.g**. **connected to Agency for Medicines and Medical Devices – MALMED catalog of products.**

2.2 Software Customization / Development

***2.2.1 Software Development Methodology:***

The supplier should adopt a formal software development methodology that aligns with industry best practices. Some commonly used methodologies include:

* *Waterfall:* This sequential approach involves distinct phases such as requirements gathering, design, implementation, testing, and maintenance. Each phase is completed before moving on to the next, making it suitable for projects with well-defined and stable requirements.
* *Agile:* This iterative and collaborative methodology emphasizes flexibility and adaptability. It involves breaking the project into small increments, called sprints, and encourages continuous customer involvement and feedback throughout the development process.
* *Rapid Application Development (RAD):* This methodology focuses on quickly building prototypes and iterating based on user feedback. It is particularly useful for projects that require rapid development and frequent iterations.

**Open Standards:**

To ensure compatibility and interoperability, the supplier should utilize open standards.

*Programming languages:*

* The supplier should choose widely adopted programming languages known for their versatility and community support. These languages should support open standards and have a robust ecosystem of libraries and frameworks.

*Markup languages:*

* Markup languages such as XML (extensible Markup Language) provide a structured format for data storage and exchange. They facilitate interoperability between systems and simplify data integration.

*Data interchange formats:*

* Lightweight data interchange formats like JSON (JavaScript Object Notation) are easy to read and write. They are commonly used in web-based applications and APIs due to their simplicity and flexibility.

**CASE Tools:**

Computer-Aided Software Engineering (CASE) tools help streamline various stages of the software development lifecycle. Consider the following examples:

*UML (Unified Modeling Language) Tools:*

* These tools enable visual modeling and design of software systems using standardized notations. UML tools facilitate effective communication and documentation of system architecture*.*

*Integrated Development Environments (IDEs):*

* IDEs provide a comprehensive set of tools for software development, including code editors, debuggers, and build automation. They enhance productivity and streamline the coding process.

*Version Control Systems:*

* These tools manage changes to source code, enabling collaboration among developers and tracking of revisions. They ensure code integrity, facilitate teamwork, and provide a history of code modifications.

*Requirements Management Tools:*

* Requirements management tools help capture, track, and manage software requirements throughout the development process. These tools provide functionalities for requirements elicitation, documentation, traceability, and change management. They assist in ensuring that the final software meets the specified requirements.

*Testing Tools:*

* Testing tools aid in various aspects of software testing, including test case management, test execution, and defect tracking. They help automate testing processes, perform test coverage analysis, and generate reports. Examples of testing tools include JUnit for unit testing and Selenium for web application testing.

*Project Management Tools:*

* Project management tools assist in planning, scheduling, and tracking software development projects. They provide features for task management, resource allocation, progress tracking, and collaboration. These tools help keep projects organized, monitor milestones, and ensure timely delivery.

**2.2.2 The Supplier must design and implement of NSW components and processes.**

The Supplier should design and implement NSW system based on the latest published version of the specifications and the latest published version of the Request for changes during the validity of the contract, making use of Baseline Architecture, architecture building blocks and of a set of already tested and integrated technical and business services.

The Supplier should integrate NSW with cross border data exchange system by means of sending formatted XML messages to SEED+ system and EU CERTEX.

* Registration of Traders and Competent Authority Implement a system to handle incoming registration requests. Monitor the processing time to ensure timely registration. Implement application monitoring to track the performance and availability of the registration system. Monitor key metrics like registration success rate, response time, and error rates. Set up notification alerts of any issues or delays in the registration process
* LPCO Application: Implement a system to handle the application, processing, and issuance of various licenses and permits certificates. The system should include functionality to allow applicants to submit license and permit applications online, providing necessary information and supporting documentation, implement a workflow system to manage the review and approval process for license and permit applications. This includes routing applications to the appropriate authorities, assigning tasks, and tracking the progress of each application, enable the storage, retrieval, and management of application documents, supporting attachments, and related files. Provide version control and document tracking features to ensure accuracy and compliance, generate and issue digital or physical certificates upon the successful approval of license and permit applications. The system should allow for customization of certificate templates and ensure the secure distribution of certificates to the applicants
* LPCO Management: Implement a system to manage the issuance, tracking, and renewal of licenses, permits, and certificates for regulatory compliance or authorization purposes. The system should include functionality to handle application processing, document verification, approval workflows, expiration notifications, and renewal processes. It should also provide a centralized repository for storing and retrieving license-related information and generate reports for auditing and regulatory purposes.
* Quantity and Release of Goods Management: Implement a workflow system to handle quantity and release of goods management tasks. Monitor the queue or workflow status to ensure smooth processing of goods management tasks. Utilize application monitoring to track the performance and availability of the goods management system. Monitor metrics like task completion time, inventory levels, and any discrepancies or errors. Set up notification alerts of any issues or delays in the goods management process.
* Notification Management: Use a messaging system to handle notifications. Monitor the queue or message backlog to ensure timely delivery of notifications. Implement application monitoring to track the performance and responsiveness of the notification system. Monitor metrics such as notification delivery time, success rates, and any delivery failures. Set up notification alerts of any issues or delays in the notification process.
* LPCO Designer: Implement functionality to handle the creation, customization, and management of digital certificates for various purposes. Implement functionality to handle LPCO design requests. Utilize application monitoring to track the performance and availability of the certificate designer. Monitor metrics like design completion time, error rates, and any design failures. Set up notification alerts of any issues or delays in the certificate design process.

NSW must be technically designed to support virtualization, high availability, robustness of the overall system (preferred asynchronous messaging integration pattern) and scalability (both vertical and horizontal, supporting production in more load-balanced instances of software). NSW is recommended to be designed and implemented in accordance to SOA-BPM architecture as per EC.

The design should avoid the big bang approach whilst the implementation should be planned with a few iterations. The iterative implementation should be planned for gradual releases of service containers and ABBs from the development environment to the test environment, and finally moving them to the production environment providing Release Management and regression testing. On delivery to the production environment the Supplier should provide sufficient training to the NSW system administrators to enable them to ensure and fully support NSW operation since the roll-out. Training manuals and tools should be implemented in the Training environment for on-line trainings of business officers from all agencies. A backup policy and automatized procedure for restoring NSW should be developed by the Supplier while established, followed and mastered by the system administrators.

**2.2.3 The Supplier must design and develop Business Monitoring and Reporting.**

Business Monitoring and reporting undertakes the business insides of the systems, such as, number of LPCO applications processed, in different statuses, grouped by the date and time, number of LPCO application per EO per month, etc. This kind of business monitoring should be developed with predefined dashboards and reports. The predefined dashboards and reports, should be discussed with NSW team before deciding the list of dashboards and reports that will be delivered from the supplier. Dashboards will present the near real time data, meaning the data in the past 7 days, where the reports will be more on past data, not real time data.

**2.2.4 The Supplier must design and develop Service Monitoring and Reporting.**

Service Monitoring and reporting undertakes the services insides of the systems, such as, number of messages processed, grouped by the date and time, number of messages per economic operator per month, etc. This kind of service monitoring should be developed with predefined dashboards and reports. The predefined dashboards and reports, should be discussed with NSW team before deciding the list of dashboards and reports that will be delivered from the supplier. Dashboards will present the near real time data, meaning the data in the past 7 days, where the reports will be more on past data, not real time data.

**2.2.5 The Supplier must design and develop System Monitoring and Reporting.**

System Monitoring and reporting undertakes the system point of view, such as, CPU and Memory consumption, grouped by the date and time, last 20 error messages, etc. This kind of system monitoring should be developed with predefined dashboards and reports. The predefined dashboards and reports, should be discussed with NSW team before deciding the list of dashboards and reports that will be delivered from the supplier. Dashboards will present the near real time data, meaning the data in the past 7 days, where the reports will be more on past data, not real time data.

**2.2.6 The Supplier must design and develop Alerting systems.**

In the alerting system it should be possible to define a threshold from which an alert (notification) can be sent when the threshold is met. For example, if the CPU Consumption goes over 95%, to send message to the System Administrators and System Owners. This should be also configurable for the Business and Service monitoring in a case it is decided with the NSW team.

**2.2.7 The Supplier must develop the export of the dashboards and reports in PDF and/or CSV formats.**

Each of the dashboard should be possible to export it in one of the formats defined, in order for further use by NSW team.

2.3 System Integration (to other existing systems)

2.3.1 The Supplier MUST perform the following Integration Services:

* Through this interface, the Trade Portal and NSW application will collaborate to verify the registration status of an economic operator in the EORI system. When a trader submits an LPCO through the NSW application, the interface will check the EORI number provided by the trader against the EORI system to determine if the trader is registered. If the trader is registered, the interface will retrieve relevant data associated with the trader from the EORI system. This information can then be automatically populated in the declaration, ensuring accurate and consistent data flow.
* The User Management is responsible for providing a single directory of users of the NSW. The application is exposing services to authenticate a user and to provide what privileges a user has. The following are the main functionalities of the system:
* Manage user information and privileges associated to a user;
* Authenticate user;
* Manage digital signatures; and
* Provide the privileges a user has in the NSW.

When the trader submits registration requests, it is presented in the User Management to authorized CBRA users (or the NSW registration unit). The CBRA user can review and approve/reject registration requests. The information is verified with the national business register, CBRAs, and risk assessed before approved and implemented in the user directory. The approval triggers applicable payment process and notification to all CBRAs.

* The ITE is a separate component in the architecture and is used as a common service. The ITE is EU TARIC aligned, and includes modules for TARIC, Quota, and Binding Tariff Information (BTI). The ITE can serve as a tariff engine for both customs purposes and from the perspective of the NSW. The existing ITE shall be a shared service, used by both customs management system and the NSW. The format of the update data instructions produced by the Master Tariff System and consumed by the NSW ITE component shall be an XML file. Data between the NSW and ITE needs to be synchronized. Data elements are defined in the functional specification for the NSW Integrated Tariff.
* The Systematic Electronic Exchange of Data (SEED) is a regional concept among the Central European Free Trade Agreement (CEFTA) parties, where export and transit data is shared with the other CEFTA parties, enabling pre-arrival information and improved risk management. Bilateral Memoranda of Understanding (MoU) defines the relations and standards for the data exchange.
* The CDEPS enables processing of the customs procedures through:
* Processing (enter, registration, confirmation, acceptance, storing and sending reply) of customs declarations;
* Processing of excise documents;
* Placing the goods in the custom procedure;
* Exchange of e-messages in order to automate the administrative flow of the procedure;
* Process management accompanied with calculation and payment of customs duties, excise, taxes and fees;
* Provision of support of indirect procedures in the customs operations (subjectivity, investigations);
* Support in conducting analysis and statistics for customs operations.
* The purpose with the Data Warehouse is to collect aggregated historical data in one place and transform to suitable data structures for analysis, analytics, and reporting. The component both contains the functionality to populate the data warehouse with information, but also provide report functionality and data mining to be used during analysis. The data warehouse shall, for example, be used to create reports that visualize trade statistics for a specific time period or a specific type of goods. The component contains the following main functionality.

1. Collection of data;

2. Data integration;

3. Storage of data;

4. Data analysis; and

5. Distribution and visualization.

* The NCTS is a common EU IT solution for managing and controlling the transit system and declarations.
* These interfaces enable seamless data exchange between the registered medicines in MALMED and the LPCO form. The MALMED system ensures that registered medicines are accurately reflected in the LPCO form, with data retrieved from the MALMED DMS software.
* Through the Release Interfaces, authorized CBRA users can clear consignments from their perspective and the NSW will update and notify the trader about the status. A release notification will be sent to the assigned trader (for example cargo terminal, warehouse operator, transporter or freight for-warder) and to the Customs Administration.
* The interface between NSW (New Single Window System) and CBRA (Cross-Border Regulatory Agency) facilitates the reception of control result messages.
* Trade Portal Interface serves as a redirection platform, directing users to the appropriate platform within the NSW application for the submission of LPCO, documentation, and other related information.
* The interface between the NSW (New Single Window System) and Government Agencies enables the seamless reception of information related to traders, registration, and issuance of LPCO (License for Preparing Consignments). This interface streamlines the exchange of relevant data, ensuring efficient processes for registration and regulatory compliance.
* The interface between NSW and CBRA, CBRA can access the LPCO applications and data through the LPCO Management service. CBRA users can review, update, create, approve/reject LPCO, check and release quantity.

2.4 Training and Training Materials

2.4.1 The Supplier MUST provide the following Training Services and Materials for the training that will be delivered to beneficiary agency (training program, materials for trainers, scenarios for exercises, evaluation sheets, data base of questions for knowledge tests, etc.). Trainings should include two levels of evaluations, reflection of the participants regarding training (Level 1) and knowledge tests after completing training (Level 2).

**2.4.1.1 The Supplier must provide training to the NSW system administrators**

Supplier must provide sufficient training to the NSW system administrators to enable them to ensure and fully support NSW operation since the roll-out. Training manual and tool should be implemented in the Training environment for on-line training of single window business officers.

**2.4.1.2 The Supplier must provide training for developing Help Desk System Administrator skills**

The iterative implementation should be planned for gradual releases of service containers and ABBs from the development environment to the test environment, and finally moving them to the production environment providing Release Management and regression testing. On each delivery to the production environment the Supplier must provide sufficient training to the NSW system administrators to enable them to ensure and fully support SDMS operation since the initial roll-out. A backup policy and automatized restoring procedure for the Help Desk database must be developed by the Supplier while established, followed and mastered by the NSW system administrators.

**2.4.1.3 The Supplier must provide training for developing Digital Signing and Validation administrator skills**

The supplier must provide sufficient training to the digital signing and validation administrators, including, but not limited to: provide an overview of the Digital Signing System, including its purpose, components, and functionality. Train administrators on the digital signing process, on mechanisms used to verify the integrity and authenticity of digitally signed documents, on managing digital certificates used for digital signing and validation and user authentication mechanisms within the Digital Signing System. Educate administrators on the legal and regulatory requirements related to digital signatures and document integrity. Train administrators on designing and optimizing the Digital Signing System for scalability and high performance, on implementing robust security measures and on monitoring the Digital Signing System.

**2.4.1.4** **The Supplier must provide training for developing payment administrator skills**

The supplier must provide sufficient training to the payment administrators, including, but not limited to: provide training on processing of various types of payments, on implementing robust security measures to protect sensitive payment data, on utilizing the Payment Service for billing and invoicing functionalities, on tracking payment transactions and reconciling them with invoices or orders and on utilizing reporting and analytics capabilities.

**2.4.1.5 The Supplier must provide training for developing Risk Management administrator skills**

The supplier should must provide sufficient training to the data warehouse administrators, including, but not limited to: capturing and identifying risks relevant to the NSW Risk Management process, risk assessment methodologies and tools, continuous risk monitoring, utilizing and implementing security measures.

**2.4.1.6 The Supplier must provide training for developing Business Monitoring and Reporting administrator skills**

The supplier should must provide sufficient training to the data warehouse administrators, including, but not limited to: provide an overview of the purpose and importance of business monitoring and reporting, identifying the business metrics that need to be monitored and reported, provide training on customization of predefined dashboards and reports, generating reports that provide insights into past performance.

**2.4.1.7 The Supplier must provide training for developing Service Monitoring and Reporting administrator skills**

The supplier should must provide sufficient training to the data warehouse administrators, including, but not limited to: Provide an overview of the purpose and significance of service monitoring and reporting, identifying the relevant service metrics that need to be monitored and reported, customizing predefined dashboards and reports, integrating data sources, updating dashboards, generating reports that provide insights into historical data, trends and patterns.

**2.4.1.8 The Supplier must provide training for developing System Monitoring and Reporting administrator skills**

The supplier should must provide sufficient training to the data warehouse administrators, including, but not limited to: Provide an overview of the importance and purpose of system monitoring and reporting in maintaining system performance and stability, identifying the critical system metrics that need to be monitored and reported, developing and customizing predefined dashboards and reports for system monitoring, generating reports that provide insights into historical system data, such as CPU and memory usage over time, integrating data sources, updating dashboards, and ensuring data accuracy for timely system analysis.

**2.4.1.9 The Supplier must provide training for developing Alerting administrator skills**

The supplier should must provide sufficient training to the data warehouse administrators, including, but not limited to: overview of the importance of alerting systems in monitoring critical system metrics and ensuring timely response to potential issues, on the concept of thresholds and how they are used to determine when an alert should be triggered, configuration process for setting up alerts, identifying the appropriate recipients for alerts based on the nature of the issue, configuring alert conditions for business and service monitoring based on predefined criteria, simulating scenarios to verify that alerts are triggered correctly based on defined thresholds.

**2.4.1.10 The supplier must provide training for the NSW Trader Interface**

The supplier must provide 2 days of training for the NSW Trader Interface: This training focuses on familiarizing traders with the NSW trader interface. Participants will learn how to efficiently navigate the interface, submit relevant documents, and engage with the NSW system to streamline their trade activities. The training audience will be the participants The supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.11 The supplier must provide training for the NSW CBRA Interface**

The supplier must provide 2 days of training for the NSW CBRA Interface: This training caters to Customs Broker and Regulatory Agency (CBRA) staff, equipping them with the knowledge and skills to effectively utilize the NSW CBRA interface. Participants will learn how to comply with regulatory requirements, facilitate customs clearance processes, and leverage the NSW system to enhance their CBRA operations. The supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.12 The supplier must provide training for the NSW Module for Border Inspection Staff**

The supplier must provide 2 days of training for the NSW Module for Border Inspection Staff: This training is designed for border inspection staff, providing them with a comprehensive understanding of the NSW module specifically tailored to their roles. It covers topics such as risk assessment, inspection procedures, and how to leverage the NSW system to optimize inspection activities. The supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.13 The supplier must provide, NSW Import Data and Data Sharing Service training**

The supplier must provide ½ day, NSW Import Data and Data Sharing Service training: This training focuses on NSW import data and the Data Sharing Service. Participants will learn how to access and utilize import data effectively for decision-making, data analysis, and trade facilitation purposes. The supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.14 The supplier must provide training for the NSW Reporting Service**

The supplier must provide 2 days of training for the NSW Reporting Service: This training equips participants with the skills to generate reports using the NSW reporting service. They will learn how to extract relevant data, create customized reports, and derive valuable insights to support operational and strategic decision-making. The supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.15 The supplier must provide training for the NSW Risk Management**

The supplier must provide 2 days of training for the NSW Risk Management: This training specifically focuses on risk management within the NSW system. Participants will gain proficiency in utilizing the risk management functionalities offered by the NSW system, assessing risks associated with trade processes, and implementing appropriate risk mitigation measures Supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.16 The supplier must provide training for Preparing a Joint Inspection Plan through NSW**

The supplier must provide 2 days of training for Preparing a Joint Inspection Plan through NSW: This training guides participants on effective collaboration and joint inspection planning using the NSW system. It covers coordination, information sharing, and streamlining inspection activities to ensure efficiency and effectiveness. The supplier will be responsible for providing location, equipment, and other requirements in coordination with the Customs Office. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.17 The supplier must provide training for Understanding and Mapping HS Codes**

The supplier must provide 1 day of training for Understanding and Mapping HS Codes: This training provides participants with a comprehensive understanding of Harmonized System (HS) codes and their significance within the NSW system. Participants will learn how to accurately classify goods, map HS codes, and ensure compliance with trade regulations. The supplier will be responsible for providing location, equipment, and other requirements in coordination with the Customs Office. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.18 The supplier must provide training for Risk Management (RM) Awareness Training for Staff**

The supplier must provide 2 days of training for Risk Management (RM) Awareness Training for Staff: This training aims to raise awareness among staff members about the importance of risk management within the NSW system. It provides an overview of risk management principles, their role in operational efficiency, and how staff members can contribute to effective risk management practices. The supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.19 The supplier must provide training for Practical NSW RM Training, including Risk Profile Development**

The supplier must provide 2 days of training for Practical NSW RM Training, including Risk Profile Development: This training offers practical hands-on experience in NSW risk management. Participants will learn how to develop risk profiles, assess and mitigate risks, and effectively implement. The supplier will be responsible for providing location, equipment, and other requirements. An additional list of participants attending the training will be provided to the supplier before the training event.

**2.4.1.20.** **The supplier must provide training for Oracle DBA Database Administration.**

The supplier must provide training for Oracle Database: Administration Workshop Oracle, on how to create database storage structures appropriate for the business applications, how to create users and administer database security, information on backup and recovery techniques. The training need to provide the Oracle database administrator practical experience in administering, monitoring, tuning and troubleshooting an Oracle database.

2.5 Data Conversion and Migration

**2.5.1 The Supplier is required to provide Data Conversion and Migration Services according to the following specifications:**

1. Volume of data: The Supplier should specify the volume of data to be converted and migrated. This includes the total amount of data from the CDPS, NCTS and EXIM systems that needs to be transferred to the new system.
2. Type, structure, and media of data: The Supplier must identify the types of data involved in the conversion and migration process. This may include customer information, transactional data, product data, and any other relevant data types. The structure of the data should be analyzed to ensure compatibility with the NSW system. Additionally, the Supplier should clarify the media on which the data is currently stored (e.g., databases, files, etc.).
3. Timing of conversion: The Supplier should provide a detailed plan for the timing of the data conversion and migration process. This includes specifying the start and end dates of the conversion, as well as any interim milestones or deadlines. It is important to minimize downtime during the migration process to avoid disruption to business operations.
4. Quality assurance and validation methods: The Supplier must outline the quality assurance and validation methods they will employ during the data conversion and migration process. This involves ensuring the accuracy and integrity of the migrated data. The Supplier should describe their approach to data validation, including any automated or manual checks, data cleansing procedures, and verification techniques.
5. Migration of users from CDPS, EXIM and NCTS systems: The Supplier is responsible for migrating user accounts and associated data from the CDPS EXIM and NCTS to the NSW system. This includes transferring user profiles, access rights, preferences, and any other relevant user-related information. The Supplier should provide a plan for migrating users seamlessly, ensuring their access to the new system without disruption.
6. Migration of active certificates: If there are active certificates in the EXIM system, the Supplier must include provisions for migrating these LPCOs to the NSW system. This involves transferring LPCO data, associated metadata, and ensuring the validity and integrity of the certificates during the migration process.

2.6 Documentation Requirements

**2.6.1 The Supplier MUST prepare and provide the following Documentation:**

**2.6.1.1 Test Documents:**

* + - * Test Strategy
      * Test Design Specification
      * Acceptance Test Plan (for each environment/cycle)

**2.6.1.2 NSW Documents/Deliverables:**

* + - * Functional Specification of NSW system
      * Technical Specification of NSW system
      * Traders Interface Specification
      * Source Code
      * Deployment software packages for all environments
      * Automated test cases (scripts)
      * Administration Manual
      * Integration Manual
      * User Guide
      * FAT Report
      * SAT Report
      * at least 2 workshops/trainings for the staff on how to use the system

**2.6.1.3 Payment Service Documents/Deliverables**

* + - * Functional Specification of Payment service
      * Technical Specification of Payment service system
      * Source Code
      * Deployment software packages for all environments
      * Automated test cases (scripts)
      * Administration Manual
      * Integration Manual
      * User Guide
      * FAT Report
      * SAT Report
      * at least 2 workshops/trainings for the staff on how to use the system

**2.6.1.4 Help Desk Documents/Deliverables**

* Functional Specification of Help Desk system
* Technical Specification of Help Desk system
* Source Code
* Deployment software packages for all environments
* Automated test cases (scripts)
* Administration Manual
* Integration Manual
* User Guide
* FAT Report
* SAT Report
* at least 2 workshops/trainings for the staff on how to use the system

**2.6.1.5 New Risk Management Documents/Deliverables**

* Functional Specification of New Risk Management system
* Technical Specification of New Risk Management system
* Source Code
* Deployment software packages for all environments
* Automated test cases (scripts)
* Administration Manual
* Integration Manual
* User Guide
* FAT Report
* SAT Report
* at least 2 workshops/trainings for the staff on how to use the system

**2.6.1.6 Trader Portal Documents/Deliverables**

* Functional Specification of Trader Portal system
* Technical Specification of Trader Portal system
* Source Code
* Deployment software packages for all environments
* Automated test cases (scripts)
* Administration Manual
* Integration Manual
* User Guide
* FAT Report
* SAT Report
* at least 2 workshops/trainings for the staff on how to use the system.

**2.6.1.7 Transfer of Source Code**

* The technical documentation will include the transfer of source code. The Supplier shall transfer the source code and full ownership of the solution.
* Source code must be available all time with the ability to view, download, stored in a Git repository. The necessary permissions and credentials to clone or fetch the repository should be provided.
* The source code will be the preferred form in which a programmer would modify the program. The source will not obfuscate on purpose (for example, for security through obscurity). Key elements to be transferred include:
  + Runtime License **-** Allowing the running of the software in an executable program, which is the code compiled from source code and is run on desktop computers and servers.
  + Source Code License *-* Allowing access to a copy of the source code, which can be changed and customized according to the specific needs.

**2.6.1.8 Project Documentation**

* Project Requirements document – the document should undertake the following topics:

a. Validate and define the objectives and goals of the NSW system. Which include the specific NSW trade processes it will cover terms of references and other support document like project blue print

b. Ratify all stakeholders involved in the NSW, including government agencies, importers, exporters, customs, and other relevant parties.

c. Comprehend their needs, requirements, and expectations from the NSW system.

d. Ensure that the NSW system design complies with all relevant EU international and local trade regulations and standards.

e. Requirements Gathering of the detailed requirements from stakeholders regarding the functionality and features of the NSW system.

* Project Methodology Document – the document should undertake the following topics:

a. Adopt in this phase methodologies framework like Agile and prototyping used by organizes teams to plan, execute, and manage the process of building software. These framework emphasis on early user feedback and design validation by end user.

b. System architecture design providing modeling, visualization, and documentation capabilities under software system design tools

D. Technology Specifications – Supply & Install Items

3.0 General Technical Requirements

**3.0.1 Power Supply Standard**

All electrical equipment must be powered with 230V, 50Hz AC and must be equipped with C13-C14 power cords.

The equipment must be suited for operation under Central European land climate and weather conditions without requiring a special preparation process.

**3.0.2 Environmental Standard**

The equipment must comply to IEC 60 529 standard for indoor IT equipment operating under temperature range of 10°C – 40°C, relative humidity range of 20% – 80% and IP 20 protection level, and must have RoHS certificate and comply to CE, WEEE standards.

**3.0.3 Installation, Configuration and Start-up**

The Supplier must include in their offer a complete set of required cables, patch cords, power cords, Ethernet cables, appropriate FC cables, accessories and other physical modules required for the proposed equipment/system to operate in accordance with specifications.

Delivered servers must be equipped with all necessary items for installation and start-up: e.g., rack rails and hardware, cable management hardware, intra-rack cables, documentation CD, etc.

The Supplier will be responsible for installation, configuration and start-up of the supplies delivered in accordance with the Technical Specifications and the directions provided by the Beneficiary.

Cable management is mandatory. All cables must be labelled on both ends according to the Contractor proposition and Beneficiary approval.

The Supplier will be responsible for integration of the supplies delivered with the existing infrastructure.

The installation services must be performed by personnel having relevant Vendor certifications.

3.1 Computing Hardware Specifications

A diagram of a server

Description automatically generated

**3.1.1.** **Minimum Hardware Requirements**

|  |  |  |
| --- | --- | --- |
| **Item No** | **Item** | **Qty** |
| 1.1 | Server Rack with equipment | 1 |
| 1.2 | Top-of-rack (ToR) switches | 2 + 1 |
| 1.3 | Network Out-of-Band Management (OOBM) switch | 2 |
| 1.4 | Database Servers – Virtualized UNIX/Linux hosts | 2 + 1 |
| 1.5 | General Compute Servers – Hypervisor hosts | 4 + 1 |
| 1.6 | Central Storage Infrastructure | 1 + 1 |
| 1.7 | Central FC SAN NVMe Infrastructure | 2 |
| 1.8 | Backup server | 1 |
| 1.9 | Backup storage | 1 |
| 1.10 | Backup software | 1 |
| 1.11 | WAN Security devices | 2 + 1 |
| 1.12 | Server Endpoint Detection and Response (EDR) system | 1 |
| 1.13 | HW and SW Installation and configuration | 1 |
| 1.14 | Software license –Relational Database Management | 4+2 |

| **Item number** | **Minimum required specifications** |
| --- | --- |
| **1.1** | **Server Rack with equipment Qty. 1**   * Rack Size: 19" * Height (Rack Units): 42U * External dimensions (WxDxH): (605 mm) x (1200 mm) x (2000 mm) * Perforated lockable front and rear doors * Quick release doors with simple lift-off design * Lockable Side Panels for easy handling and access to equipment * Adjustable leveling pads. * Rear Cable Channels for toolless mount of up to 8x 0U vertical power distribution units (PDU) rack strips, and vertical cable organizers   **Rack PDUs**   * Quantity: 2 * Vertical, Zero U * Output Connections: (36) x IEC 60320 C13, (6) x IEC 60320 C19 * Input Connections: IEC 60309 32 A 2P + E * Nominal Output Voltage: 230V * Nominal Input Voltage: 200V, 208V, 230V * Load Capacity: 7650VA * Maximum Input Current: 32A * Input frequency: 50 - 60 Hz   **Vertical Cable Organizer**   * Quantity: 2 * Zero U * 8 Cable Rings   **Blanking Panels**   * Quantity: min. 20 * 1U 19" Black Blanking Panel |
| **1.2** | **Top-of-rack (ToR) switches Qty. 2 + 1 (cluster for Primary site + single for DR Site)**  **Physical characteristics**   * Type: L3, Datacentre switch * Chassis type: 1U, Rack mountable, including rack mounting kit * Minimum 48x10/25GbE SFP28 downlink ports * Minimum 8x 40/100GbE uplink ports * Console access: mini-USB or RJ-45 copper ports. * Airflow: “**front-to-back**” * Power Supply: Redundant AC power supplies, hot-swappable, dual, * Power Cords: 2m (PDU 10A)   **Layer 3 networking**   * Static routing: hardware based * Routing protocols supported: min. BGP, VRF, ISIS, VRRP * Multicast support: min. 8.000 route entries   **Performance**   * Switching capacity: min. of 3.800 Gbps * Packet buffer memory capacity: min. of 32MB * Forwarding rate: min. of 3.800 Mpps * Maximum latency: up to 1 µs * On-board drive: SSD, min 32 GB capacity   **Security features**   * FIPS 140-2 compatibility * MAC Sec support (IEEE 802.1ae)   **Cables and Transceivers (for each TOR switch)**   * 1 x 100GbE, QSFP28 to QSFP28, Passive Copper Direct Attach, 1m for Multi-Chassis Link Aggregation (MCLAG) * 2 x Transceiver, 25GbE SFP28 SR, MMF, Duplex LC * 2 x Transceiver, SFP+, 10GbE, SR, 850nm Wavelength, 300m Reach * 2 x Fibre Cable, OM4, MMF, LC/LC, 50 Meter |
| **1.3** | **Network Out-of-Band Management (OOBM) switch Qty. 2**  **Physical characteristics**   * Type: L3, Access switch * Chassis type: 1U, Rack mountable, including rack mounting kit * Minimum 48x RJ45 10M/100M/1G/ auto-sensing downlink ports * Minimum 4x SFP+ 10G uplink ports * Console access: mini-USB or RJ-45 copper ports. * Airflow: “**side-to-back**” * Power Supply: Redundant AC power supplies, dual, * Power Cords: 2m (PDU 10A)   **Performance**   * Switching capacity: min. Up to 175 Gbps * Forwarding rate: min. Up to 255 Mpps * Maximum latency: up to 1 µs     **Cables and Transceivers**   * 2 x SFP+ to SFP+, 10GbE, Passive Copper Twinax, Direct Attach Cable, 1 Meter (compatible with TOR switches Item No. 1.2) |
| **1.4** | **Database Servers – Virtualized UNIX/Linux hosts Qty. 2 + 1 (cluster for Primary site + single for DR Site)**  **Chassis and Power supply**   * Form factor/height: Rack mount, max. 2U * Chassis Configuration: NVMe Chassis, * Power supply: minimum Dual, Hot-Plug, 1850W, * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: Toolless, Sliding Rails * Ports: minimum 1 x USB-2.0, 1 x USB-3.0, 2 x Ethernet management RJ-45 ports   **Motherboard, CPU and Memory**   * Number of DDR4 DIMM slots: min. 32 * Number of memory channels per CPU: min. 8 * CPU sockets: **minimum 2 processor sockets** supported, each with a min. of 12 cores each, **with NX unit acceleration**. * CPU generation: minimum latest Generation RISC architecture processors. * CPU Clock rate**: min.** **3,9 GHz** * CPU Number of active cores per CPU: **min. 6** * CPU L3 Cache: **min. 8 MB per physical core** * CPU execution threads: **min. 8 hardware based simultaneous threads** for each physical core * Memory type: ECC DDR4, with AES based memory encryption for all data in system memory * Memory speed: min. 3200 Mbps * Memory Capacity: min. 512 GB, (8 x 64 GB)   **Storage configuration**   * PCI SAN controllers: 2 x 32 GB Dual Port Fiber Channel HBA, SW SFP * Boot disks: Boot-From-SAN configuration   **Network Interface Cards**   * PCI NIC’s: 2 x Dual Port 25 Gbe - SFP28, RoCE. * Networking Cables: 4 x SFP28 to SFP28, 25GbE, Passive Copper Twinax Direct Attach Cable, 3 Meter (compatible with TOR switches Item No. 1.2)   **Security features**   * Cryptographic algorithm acceleration, for Advanced EncryptionStandard (AES) and SHA3 * Front Bezel * Cryptographically signed firmware * Secure Boot * Trusted Boot * Single Root I/O Virtualization (SR-IOV)   **Embedded Management**   * Separate, integrated dual 1 Gb Base-T module for monitoring and management of server and its components. Support for local and remote access via Graphic Web Interface (GUI). A remote access license must be included in the offer. * Web-based GUI. * Health Monitoring through sensors. * Power control, Boot control, * Virtual Media, Virtual Folders * Virtual Console, HTML access to Virtual Console * SSH connection to OS * Email Alerting * Temperature monitoring |
| **1.5** | **General Compute Servers – Hypervisor hosts - Qty. 4 + 1 (cluster for Primary site + single for DR Site)**  **Chassis and Power supply**   * Form factor/height: Rack mount, max. 2U * Power supply: minimum Dual, Hot -Plug, 1100W, Titanium efficiency class * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: Toolless, Sliding Rails, with cable management arm * Ports: minimum 2 x USB-2.0, 1 x USB-3.0, 1 x VGA, 1 x USB port, minimum optional serial port   **Motherboard, CPU and Memory**   * Number of DDR5 DIMM slots: min. 32 * Number of memory channels per CPU: min. 16 * CPU sockets: minimum 2 processor sockets supported. * CPU generation: minimum latest Generation x64 architecture processors or equivalent. * CPU Required number: **2 Pcs** * CPU Clock rate**: min.** **3.5 GHz** * CPU Number of cores per processor: **min. 16** * CPU L3 Cache: **min. 45 MB** * Memory type. ECC DDR5 * Memory speed: min. 4800 MHz * Memory Capacity: min. 1024 GB, (16 x 64 GB) * Minimum memory upgrade support 8TB   **Storage configuration**   * Boot disks: Two (2) Internal M.2 SSD drives configured in RAID1, minimum capacity 480GB * PCI SAN controllers: 32 GB Dual Port Fiber Channel HBA, SW SFP   **Network Interface Cards**   * PCI NIC’s: 2 x Dual Port 25 Gbe - SFP28, RoCE. * PCI NIC’s: 1 x Dual Port 1 Gbe – RJ-45. * Networking Cables: 4 x SFP28 to SFP28, 25GbE, Passive Copper Twinax Direct Attach Cable, 3 Meter (compatible with TOR switches Item No. 1.2) * Networking Cables: 4 x OM3 LC-LC FC Cable, 10 Meter (compatible with FC switches Item No. 1.7)   **Security features**   * Trusted Platform Module 2, factory enabled with Secure Boot * LCD bezel * Cryptographically signed firmware * Secure Boot * Silicon Root of Trust * System Lockdown * Management of Data at Rest Encryption keys * Secure Erase   **Embedded Management**   * Embedded system management controller with own processing power which is FIPS 140-2 Level 1 certified * Built-in wireless module for wireless diagnostics over BLE / NFC. * The embedded controller should allow proactive for error alerts on network adapters, memory, internal drives (SAS HDDs and SSDs, NVMe), fans, power modules, RAID controllers, Fibre Channel HBAs, ambient server temperature (including graphical displays) on SSD) and other errors. * The controller should allow quality control / bandwidth of remote access to the server. * The controller should include independent 10/100/100 Mbit Ethernet adapter for real time remote management as well as a dedicated USB port for WSMAN management access at the front side. * The controller should provide agent-free hardware, firmware and performance monitoring, including inventory, crash screen / video capture, boot capture, and alerting. * The controller should support the IPMI 2.0 protocol, VNC connectivity with the operating system, include HTML 5 based browser interface, SMASH-CLP, Dynamic DNS, DHCP with Zero Touch functionality, NFS v4 and WSMan support, E-mail alerts, Virtual console (KVM) as well as virtual media attachment. * Front-facing LCD panel for local management and diagnostics. * Unlimited Virtual Console with HTML5 or VNC.   **Virtualization Hypervisor**   * Virtualization software shall provide a virtualization layer that sits directly on the bare metal server hardware with no dependence on a general-purpose OS for greater reliability and security. * Central management interface, accessible over secure HTTP Strict Transport Security (HSTS) graphical interface. * Virtualization software shall have the capability to create Virtual machines with up to 256 virtual processors and up to 2 TB virtual RAM in virtual machines for all the guest operating system supported by the hypervisor. * Virtualization software should support live migration of virtual machines with no disruption to users or loss of service, eliminating the need to schedule application downtime for planned server maintenance. * Virtualization software should perform live migration of virtual machines files from one storage array to another without any Virtual Machine downtime. * Virtualization software should support Network File System (NFS), Gluster FS storage, Internet Small Computer System Interface (iSCSI), and Fibre Channel Protocol (FCP) type of storage. * Virtualization software shall have High Availability capabilities for the virtual machines in the sense, if in case one server fails all the Virtual machines running on that server shall be automatically restarted to another physical server running same virtualization software. * The solution should provide secure access and account management through identity federation. * The solution should support for increasing capacity by adding CPU, Memory or any other devices to virtual machines on an as needed basis without any disruption in working or downtime for supported operating systems. * Virtualization software should support automated load balancing of workload across the resources allocated to workloads in a cluster. * Virtualization software should be able to receive server health information and migrate virtual machines from degraded hosts. * Licensing should be based on per-CPU licensing model and offer need to include licenses for at least four hypervisor hosts / **8 CPU’s with unlimited physical cores on each**. * For the offered software license, it is needed to provide technical support directly from the vendor at all levels **for a period of at least 3 years**, and which provide possibility to install latest version of the solution during a support period. |
| **1.6** | **Central Storage Infrastructure - Qty. 1 + 1 (for Primary site + for DR Site)**  NVMe-based Unified Block and File Storage System  **Centralized Storage:**   * The storage solution shall include as a minimum end-to-end NVMe all-flash architecture storage platform with appropriate capacity for on-prem data storage. * Minimum of 72 GB direct controller based memory for cache and other functionalities shall be included for each pair of controllers (144 GB in total). * Minimum of two active controllers shall be included, expandable by at least four times. * Minimum of 32-Gbps NVMe over Fibre Channel data access protocol shall be offered, through a minimum of 4 redundant port pairs. * Minimum of 25-Gbps Ethernet data access protocol shall be offered for block and file based access to data, through a minimum of 4 redundant port pairs.   **Storage Capacity:**   * A minimum of 14 x 3.8 TB NVMe data storage drives. * A minimum of 37 TiB usable (no compression/deduplication/thin provisioning) and dual drive failure protected capacity for archive data storage. * Dedicated spare drive or spare drive capacity must be included.   **Data at-rest encryption requirements:**   * Full storage level hardware-based encryption shall be implemented, with private keys controlled by Customs. * The storage solution shall include as a minimum Advanced Encryption Standard (AES) 256-bit.   **Protocols for host access:**   * Supported block protocols: iSCSI, Fibre Channel, NVMe/FC, NVMe/TCP, vVols over NVMe/FC and TCP. * Supported file based protocols: NFS v4.1, SMB 3.1, SFTP, RSVD/SMB, NDMP v4.   **Protection in case of power outage:**  The solution must have a battery that is part of the controller, is not allowed to use a battery in the power supply of the data storage system or standalone batteries.  **Storage efficiency:**  The solution must support in-line compression and in-line deduplication for maximum capacity efficiency (post-process compression and deduplication is not allowed).  The solution must fully support the Virtual Provisioning function. Thin Provisioning functionality must be included for the entire capacity of the data storage system (without license restriction according to the cap).  The solution must support Application Consistency copies with local and remote replications. |
| **1.7** | **Central FC SAN NVMe Infrastructure**  **Fiber Channel NVMe SAN infrastructure – Qty. 2 (for Primary site)**  Full hardware-redundant (dual fabric) 32 Gb NVMe over Fibre Channel low latency communication networking infrastructure for block level FC SAN protocols, with no possibility for SCSI protocol interruption in case of a single element failure.  **General FC switching characteristics (per switch)**   * Full support for NVMe over Fibre Channel and Quality of Service (QoS) * Supported port types: F\_Port, E\_Port, B Port TE Port, SD\_Port, ST\_Port * ISL Trunking: up to 16 physical ports * NPV mode and N-Port ID Virtualization (NPIV)   **Performance characteristics (per switch)**   * Min. dedicated bandwidth: 32 Gb/s for every port (32 \* 32 Gbps) * Buffer credits: up to 500 buffer credits for every port, up to 8250 buffer credits for a single port in a port group   **FC SAN Chassis and Power supply**   * Form factor/height: Rack mount, max. 1U per switch * Chassis Configuration: 1U Chassis with up to 32 SFP+ FC ports, * Power supply: minimum Dual, Hot -Plug, * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: 19” Rails, * Management Interfaces: minimum 1 x serial port, 1 x RJ-45 1Gb Ethernet port, FCIP in-band management, SFTP and AES encrypted SSH v2.   **FC ports configuration (per switch)**   * 24 x 32Gb/sec short-wave SFP+ usable ports (with LC connector),   **Security features**   * FC-SP for host-to-switch and switch-to-switch authentication * In-order delivery * Port security * VSANs * Control-plane security |
| **1.8** | **Backup Server - Qty. 1**  **Chassis and Power supply**   * Form factor/height: Rack mount, max. 2U * Chassis Configuration: Chassis configuration options for housing up to 10 internal drives * Power supply: minimum dual, Hot -Plug, 1100W, Titanium efficiency class power supply modules * Power cords: 2 x Rack Power Cord 1m (C13/C14 10A) * Rails: Toolless, Sliding Rails, with cable management arm * Ports: minimum 4 x USB, 1 x VGA, 1 x DB-9 COM port   **Motherboard, CPU and Memory**   * Number of DDR5 DIMM slots: min. 12 * Number of memory channels per CPU: min. 12 * CPU sockets: minimum 1 processor socket supported * CPU generation: minimum latest Generation x86 architecture processors or equivalent. * CPU Required number: **1 Pcs** * CPU Clock rate**: min.** **3 GHz** * CPU Number of cores per processor: **min. 16** * CPU Cache: **min. 45 MB** * Memory type. ECC DDR5 * Memory speed: min. 4800 MHz * Memory Capacity: min. 128 GB, (4 x 32 GB)   **Storage configuration**   * Internal hardware SAS/NVMe RAID controllers with min. of 2 x SSDs of min 480GB capacity (configured in RAID 1) * PCI SAN controllers: 1 x 32 GB Dual Port Fiber Channel HBA, SW SFP   **Network Interface Cards**   * PCI NIC’s: 1 x Dual Port 1 Gbe – RJ-45 * PCI NIC’s: 1 x Dual Port 25 Gbe - SFP28, RoCE. * Networking Cables: 2 x SFP28 to SFP28, 25GbE, Passive Copper Twinax Direct Attach Cable, 3 Meter (compatible with TOR switches Item No. 1.2) * Networking Cables: 2 x OM3 LC-LC FC Cable, 10 Meter (compatible with FC switches Item No. 1.7)   **Security features**   * Trusted Platform Module 2, factory enabled with Secure Boot * LCD bezel * Cryptographically signed firmware * Secure Boot * Silicon Root of Trust * System Lockdown * Management of Data at Rest Encryption keys * Secure Erase   **Embedded Management**   * Embedded system management controller with own processing power which is FIPS 140-2 Level 1 certified * Built-in wireless module for wireless diagnostics over BLE / NFC. * The embedded controller should allow proactive for error alerts on network adapters, memory, internal drives (SAS HDDs and SSDs, NVMe), fans, power modules, RAID controllers, Fibre Channel HBAs, ambient server temperature (including graphical displays) on SSD) and other errors. * The controller should allow quality control / bandwidth of remote access to the server. * The controller should include independent 10/100/100 Mbit Ethernet adapter for real time remote management as well as a dedicated USB port for WSMAN management access at the front side. * The controller should provide agent-free hardware, firmware and performance monitoring, including inventory, crash screen / video capture, boot capture, and alerting. * The controller should support the IPMI 2.0 protocol, VNC connectivity with the operating system, include HTML 5 based browser interface, SMASH-CLP, Dynamic DNS, DHCP with Zero Touch functionality, NFS v4 and WSMan support, E-mail alerts, Virtual console (KVM) as well as virtual media attachment. * Front-facing LCD panel for local management and diagnostics. * Unlimited Virtual Console with HTML5 or VNC. |
| **1.9** | **Backup Storage - Qty. 1**  Purpose built data backup storage with built-in data deduplication functionality.   * Up to 2U rack-mount deduplication storage device for backup data, including rails and other mounting equipment for standard cabinets. * Minimum usable capacity of 16 TB with SAS/NL-SAS disks, protected by RAID technology that enables data availability even in the event of simultaneous failure of at least two disks. * Includes at least 64 GB of global memory, a minimum of 300 GB of metadata cache memory, and a processor with at least eight cores. * Includes inline data deduplication. Deduplication should be performed also at the source of the data. * Supports deduplication of variable blocks and it shall be global. * Enables global data compression. * Supports data transfer over LAN with the following protocols: CIFS, NFS v3, NDMP, FTP.   Simultaneous data transfer over SAN/FC (Storage Area Network/Fibre Channel) and LAN must be available, allowing them to operate simultaneously.  Writes at least 4 TB/h or at least 7 TB/h with client-side deduplication.   * Minimum of 2 redundant power supplies. * Minimum of 4 x 10 GbE Ethernet LAN ports with the possibility of aggregation, usable for NAS, SFTP and SMB client access; * Minimum of 1 x Quad Port 16 Gb Fiber Channel HBA adapter for VTL connectivity and access.   Includes a separate Ethernet LAN port for remote management via HTTPS graphic console.  Includes local LED diagnostics on the front of the device.  Includes direct local management USB port on the front of the device.  All necessary cables for normal system operation should be provided at a minimum speed of 10 Gbps.  Highly available and hot-pluggable power supply modules included, sufficient for full system configuration.  Included power cables from standard PDU – C13/C14 (or equivalent). |
| **1.10** | **Backup software Qty. 1**   * Backup software should protect all virtual machines that reside on the Hypervisor Cluster referenced in item 1.5 (total 8 hypervisor sockets) * The offered solution must have a system for monitoring the virtual and backup environment, sending alarms and alerts to system administrators and the ability to generate reports, predefined or created by users. * Support for backup and restores of data from disk, LTO tapes and cloud. * Supported physical platforms refer to the most common underlying operating systems.   Recovery from backup:   * Recovery of full virtual machine, fast recovery only on changed data. Recovery of data’s Active Directory into email’s, Active Directory data’s and SQL tables. * Direct recovery of data from virtual or physical servers into any of powerful cloud computing platforms that offer a wide range of services to support various use cases, from hosting websites and applications to running big data analytics and machine learning workloads. * Minimum protection function of range of applications, databases, and platforms, including cloud with backup to cloud, backup in cloud storage, long term retention and cloud disaster recovery. * Minimum options for consistent data protection across virtual machines, cloud native applications and containers. * NAS backup: Backup of NAS Filers over NDMP protocols * Minimum options for quickly and easy recovery from cyber attacks. * Minimum data protection to the cloud with disaster recovery, long-term retention, and protect cloud native workloads across single or multiple cloud environments. * Deduplication and compression of backups and swap spaces * Minimum designed to support multiple hypervisors that allow virtualization platforms used to create and manage virtual machines (VMs) on physical hardware. * Provide synchronous or asynchronous replication policies. * Minimum function for monitoring, alerting and reporting. * Minimum indication of potential cyber-attacks, proactive analysis and data protection |
| **1.11** | **WAN Security Devices**  WAN (internet facing) Firewalls for Zero Trust Network Access Framework– Qty: 2 + 1   * Next Generation IP level protection system against external cyber-attacks for the NSW network and the system management platforms. * The solution must be fully redundant. * The solution must include machine learning (AI) malware detection functionality. * The solution must include a stream-based anti-virus scanning functionality. * The solution must include zero-day attack protection anti-virus engine, which integrates into the regular anti-virus scanning of Windows Portable Executables (PEs) of the system.   All remote access to the NSW platforms must be configured exclusively over dual stack IPv4 and IPv6 SSL VPN connectivity, with Zero Trust Network Access (ZTNA) HTTPS access proxy.  The NSW network platforms must be located in isolated network domains behind the cyber security system.  The cyber security protection system should consist of hardware and appropriate licenses including installation and configuration of the network system.  General protection system requirements:   * The solution must contain two fully independent systems configured in a cluster. * The cluster must include as a minimum a pair of highly available hardware-accelerated appliances, which do not use a standard x86 architecture. * The appliances must contain proprietary and low footprint operating system which is completely locked and secure. * The appliance’s operating system must be validated by NIST according to the FIPS 140-2 Cryptographic Module Validation Program. * The core functionalities of the cyber security products, such as the firewall and the anti-malware engine must be certified as a minimum by the ICSA Labs.   Each of the appliances must include a centralized web-based management graphical interface.  The appliances must include a sniffer, transparent (bridge) and Gateway (NAT) deployment options.  Each system must provide a full Zero Trust Network Access role-based application access for local and remote users.  The system must not include any license limit for security features such as Firewall, VPN, Anti-Virus, IPS, Application Control as well as on number of secured devices or users.  System capacity requirements:   * Standard rack-mountable devices, supporting IPv4 and IPv6.   A secure permanent and highly available connectivity between the two sites must be established, to provide for a centralized security management and monitoring functionality from both sites.  Capacity / performance requirements per each device are as following:   * Standard firewall throughput for 512-byte UDP packets: At least 25 Gbps. * The device must be capable of handling at least 3.3 Gbps of NG firewall throughput, with active IPS, application control and threat protection functionality. * Standard firewall latency for 64-byte UDP packets: less than 5 microseconds. * The device must be capable of handling at least 275.000 new TCP connections per second. * The system must be capable of handling at least 12 Gbps of IPsec VPN throughput for 512-byte packets. * The device must be capable of handling at least 2 Gbps of SSL VPN throughput. * The device must be capable of handling at least 5 Gbps of IPS throughput. * The device must be capable of handling at least 3.35 Gbps throughput with the firewall, IPS and Application Control functionalities and active logging functionality. * The device must include at least 450 GB of onboard internal SSD storage for backing up full logs. * The device must be capable of handling at least 2.950.000 concurrent TCP sessions. * The device must be capable of handling at least 2.75 Gbps of System Application Control throughput for HTTP traffic, with active Threat Protection functionality, IPS and NGFW. * The device must be capable of handling at least 1.900 Gateway-to-Gateway IPsec VPN Tunnels.   System connectivity requirements:   * The system must include at least 2 x Gigabit Ethernet RJ-45 dedicated Management ports. * The system must include at least 16 x Gigabit Ethernet RJ-45 inside (host/switch) ports. * The system must include at least 2 x 10 Gigabit Ethernet SFP+ ports. * The system must include at least 8 x Gigabit Ethernet SFP ports. * The system must include dual power supplies. * The system must include Bluetooth Low Energy (BLE) support. * The system must include at least 1 x console port. * The system must include at least 1 x USB 3.0 port.   Advanced security system requirements:   * The system must be capable of and configured for active/active clustering.   The security profiles in proxy mode must perform SSL inspection on HTTP/2 traffic that is secured by TLS 1.3 using the Application-Layer Protocol Negotiation (ALPN).  The system must allow for SSL VPN hub and spokes topologies to be configured  The system must allow for SAML user authentication for explicit web proxies and transparent web proxies.  The system’s IPS engine must handle DNS filter in flow mode, with support for botnet domain and IP filtering as well as remote category rating.  The system’s IPS engine must handle SIP inspection in a flow-based firewall policy.  The system must allow for DNS over TLS (DoT) and DNS over HTTPS (DoH) for DNS inspection.  Networking: support for DHCP, DNS, VLANs, RIP, OSPF, ISIS, BGP, Multicast, ICAP, QoS and NAT46/64.  The system must include a web proxy (transparent and Explicit) functionality for HTTP and HTTPS traffic.  The system must include Layer 3-4 object-based Firewall, including session helpers and ALGs.  The system must include all standard VPN functionalities, including IPsec, L2TP over IPsec and PPTP.  The system must include SSL VPN access with customizable web portal, bookmarks manager and single sign-on for back-end web apps.  The system must include integrated token server for dual-factor authentication, mandating MFA using 8-digit one-time password (OTP) for remote connectivity, supporting management and provisioning of at least 500 users through the integrated GUI.  The system must include a mobile device perpetual software license and functionality for generation of one-time password tokens for at least 25 users connecting remotely over VPN, as well as for local firewall authentication. This offered mobile OTP generation software must operate under the iOS, Android and Windows Phone platform mobile devices.  The system must include Intrusion Prevention System with signatures rated by category and risk.  The system must include Application Control functionality with all common applications pre-defined (like Botnet, Collaboration, Email, File Sharing, Games, Network Services, P2P, proxy services, Remote access, Social Media, Storage, Video/Audio and VoIP and others); support for special types of apps like SPDY, SSH and custom app signatures.  The system must include Anti-malware protection with IP Reputation, Antivirus for the following protocols: HTTP/HTTPS, SMTP/SMTPS, POP3/POP3S, IMAP/IMAPS, MAPI, FTP, SFTP, SMB, NNTP; Heuristics analysis, file submission and on-premise as well as cloud-based sandbox integration functionality. The included sandbox functionality must be fully compliant with the MITRE ATT&CK reporting.  The system must include web filtering, including URL based filter categories with regular expressions or wildcards pattern matching;  The system must include web content matching, video filtering based on YouTube categories or channel ID, DNS filter with DNS rating service, DNS safe search and category-based DNS domain filter.  The Intrusion Prevention system must include botnet C&C domain blocking functionality.  The system must include DLP engine with support for the HTTP-POST/GET, SMTP, POP3, IMAP, MAPI, FTP protocols.  The system must include user & device-based policies & inventory, including remote device fingerprinting and active scanning of devices on the network.  The system must include real-time updates for Web Categorization & Antispam (cloud database).  The system must include Push updates for IP Reputation, AV, IPS and Application Control.  Virtualization requirements:   * The system must include virtualization support - segregation of physical device into multiple virtual domains (minimum 10 included with no additional cost); each virtual domain must work independent from the others in Gateway/NAT or Transparent/Bridge like a virtual UTM Firewall.   The system must include functionality to reserve physical and logical resources per virtual domain.  The system must include role-based administration & multi-tenancy functionality.  The system must include the following high availability functionality: Active-Passive, Active-Active, virtual clusters), including geographically dispersed HA; The clustering functionality must provide for device failover in case of link failure, loss of power, SSD drive failure or memory utilization exceeding certain threshold.  The system must include integration with Active Directory, LDAP, TACACS+ or RADIUS; The system must include single sign-on with Active Directory and VDI users (Proxy/Firewall authentication).  All network devices should be redundant and with a redundant power supply |
| **1.12** | **Server Endpoint Detection and Response (EDR) system Qty. 1**  System for protecting the servers with centralized management solution, for a minimum of 30 virtual servers.  The protection system must have at least the following standard security functionalities:  Protection against malicious threats, including:   * Anti-Ransomware protection, * Next Generation Antivirus Protection, * Anti-Bot Protection, * Anti-Exploit protection, * Anti-viral protection, * Automated generation of forensic reports * Behavioural guard * Zero-phishing * Corporate credential reuse protection * Zero-Day protection founded on sandbox emulation   Protection of access control, including:   * Endpoint Firewall * Application Control   protection from access to malicious web pages and URL links   * Port Protection * Endpoint Compliance * Full disk encryption * Media Encryption * Remote Access VPN   The requested solution must have the ability to adaptively detect and block malware resulting from mutations based on their real-time behaviour.  Next Generation Antiviral Protection must be based on machine learning mechanism.  The requested solution must have an Anti-Exploit protection, with the possibility of detecting suspicious processes in memory.  The built-in under the framework Anti-Exploit must be based on at least the following technologies:   * Import – Export Address Table Parsing * Return Oriented Programming * Stack Pivoting * VB Script God Mode   The requested solution must have a zero-day malware protection based on the principle of sending files to a secure cloud sandbox for detailed verification.  The requested solution must have the possibility to automatically remove active elements of documents such as PDF JavaScript Actions, Macros, and Embedded objects in which there may be malicious content and delivery of filtered documents without waiting for the completion of sandbox file checking.  User must have the option to download the original file after completing the sand-box check  The port protection level must have the opportunity to control content exchanged through USB, WiFi, and Bluetooth ports.  The required solution must have an integrated tool for proactively detecting and removing cyber-attacks (Threat Hunting) based on compromise indicators (IoC).  The requested solution must have the compatibility to be installed on servers with at least the most common versions of operating systems.  The requested solution must have the functionality to control the input/output traffic of the servers using the source/destination IP address and the gate.  A third-party solution must have an automated tool to verify the compliance of endpoint security settings with the centrally defined standards. |
| **1.13** | **HW Installation and configuration**   * Required hardware management IP addresses and Operating system management IP addresses must be asked in advanced and provided by the Beneficiary. * Rack, PDU and Horizontal and Vertical Cable Management installation. Connecting PDU’s to Customs power sockets provided by the Beneficiary. * Installing TOR switches and OOBM switches in rack. * Configuring switches according to the Beneficiary instructions. * Server installation in rack. Connecting LAN, and OOBM cables. * Configuring server management IP addresses. * Backup system integration and configuration. * It is the Contractor responsibility to provide LLD (Low Level Design) documentation and deliver to Beneficiary in electronic form and in hard copy.   **Server virtualization software/platform installation and configuration**   * Required IP addresses for all services for Virtualization software/platform must be asked in advanced and provided by the Beneficiary. * It is the Contractor responsibility to install and configure all required and proposed virtualization management components. * Contractor will install and configure virtualization software on servers (item 1.4 and 1.5) and create virtual machines. All configuration parameters such as allocation of virtual CPUs, RAM, virtual disk space, vNiC to each virtual machine are subject of proposed software solution design. |

Data Base Management System Specifications

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| **1** | **Software license –Relational Database Management System Type 1 (Gov) – Quantity 4** |
| 1.1 | A database management system must be proposed as relational database software (RDBMS - Relational Database Management System) |
| 1.2 | The RDBMS shall provide add, delete, edit, search, and sort options for records in the selected databases. |
| 1.3 | Proposed RDBMS must be fully compatible and certified by the RDBMS vendor for the operating system of the database servers, installed on the Primary location and the database servers "Database Servers – Virtualized UNIX/Linux hosts" |
| 1.4 | Proposed RDBMS must not limit the size of the database to be created. |
| 1.5 | Proposed RDBMS must support concurrent multi- user access and must not limit the number of connected users. |
| 1.6 | Proposed RDBMS must be 100% compatible with common Internet/intranet platforms and Internet browsers. |
| 1.7 | Proposed RDBMS must support Unicode character set, as well as official languages of North Macedonia and English language. |
| 1.8 | Proposed RDBMS must support a Web browser based console interface and remote administration utility for administration, maintenance, backup/recovery, monitoring and tuning. |
| 1.9 | Proposed RDBMS must have built-in support for developing stored procedures, functions, and packages (collections of procedures and functions). |
| 1.10 | Proposed RDBMS must have built-in support for stored procedures, functions, and packages compilation during development and before execution. |
| 1.11 | Proposed RDBMS must support permissions assigned to database objects based on privileges, users and roles. |
| 1.12 | Proposed RDBMS must provide an audit mechanism. |
| 1.13 | Proposed RDBMS must provide network encryption for the data sent between the client and server. |
| 1.14 | Proposed RDBMS must support complete and incremental backup/recovery. Backup functionality must support online operations in such way that backup of database can be done while database is up and running. |
| 1.15 | Proposed RDBMS must support automatic recovery in case of a transaction or system failure. |
| 1.16 | Proposed RDBMS must have support for alphanumeric, unstructured data, XML as well as spatial data. |
| 1.17 | Spatial features of RDBMS must support:  Spatial data must support different geometry types such as: points, multi-points, lines, line strings, multi-line strings, polygons, multi- polygons, surfaces, multiple surfaces, 3-D geometry, and point cloud storage.   * Spatial operators for determining geospatial measurements like area, distance, length and perimeter, as well as geospatial set operations like union, difference, and symmetric difference. * Data models such as: topology data model for working with data about nodes, edges, and faces in a topology, network data model to model and analyze link-node graphs to represent physical and logical networks used in transportation, etc. * Raster data to store, index, query, analyze, and deliver data as raster image and its associated metadata. * Graphs such as property and RDF (Resource Description Framework) graphs. |
| 1.18 | Proposed RDBMS must have support for Machine Learning (ML) features including but not limited to: development of ML models and ML model scoring, predictive analytics which can use ML algorithms implemented as SQL functions, and built-in integration with open-source R language. |
| 1.19 | Proposed RDBMS must have support for table and index partitioning by dividing them into smaller pieces. Table partitioning must support different  partitioning methods such as: range partitioning, hash partitioning, list partitioning, and composite partitioning (combination of other methods). |
| 1.20 | Proposed RDBMS must have support for high availability in a way that it has cluster of two or more database nodes sharing data in between database nodes, and where all the nodes in a cluster are active and equally process the data. If one database node in cluster fails, traffic intended for the failed node is either passed onto an existing surviving nodes or load balanced across the remaining nodes. |
| 1.21 | Proposed RDBMS must be able to add new database nodes into database cluster dynamically without any downtime and without interrupting data access. |
| 1.22 | Proposed RDBMS must be able to remove one active database node from database cluster dynamically without any downtime and without interrupting data access |
| 1.23 | Proposed RDBMS must be able to apply new patches to active database nodes in database cluster dynamically in rolling manner without any downtime of database cluster and without interrupting data access. |
| 1.24 | RDBMS must support online operations such as table redefinition and index rebuild without database restart. |
| 1.25 | Proposed RDBMS must have built-in ability to view changes across row versions. |
| 1.26 | Proposed RDBMS must have built-in ability to rewind the TABLE to a past point in time. |
| 1.27 | Proposed RDBMS must have built-in capability to rewind the database to a prior point without the need to RESTORE the database. |
| 1.28 | Proposed RDBMS must have built-in ability to recover dropped objects. |
| 1.29 | Proposed RDBMS must be able to monitor SQL statements and analyze SQL statement execution in order to detect and diagnose database performance problems, and help administrators to proactively tune their database environment. |
| 1.30 | RDBMS must include technical support including:   * Download of patches, upgrades and new releases. * 24 x 7 x 365 access to hardware and software professionals to report problems if they occur. |
| 1.31 | The Bidder is required to provide technical support for at least one year. |

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| **2** | **Software license – Relational Database Management System Type 2 (Gov) – Quantity 2 (DR)** |
| 2.1 | A database management system must be proposed as relational database software (RDBMS - Relational Database Management System) |
| 2.2 | The RDBMS shall provide add, delete, edit, search, and sort options for records in the selected databases. |
| 2.3 | Proposed RDBMS must be fully compatible and certified by the RDBMS vendor for the operating system of the database servers, installed on the DR location and the database servers "Database Servers – Virtualized UNIX/Linux hosts". |
| 2.4 | Proposed RDBMS must not limit the size of the database to be created. |
| 2.5 | Proposed RDBMS must support concurrent multi- user access and must not limit the number of connected users. |
| 2.6 | Proposed RDBMS must be 100% compatible with common Internet/intranet platforms and Internet browsers. |
| 2.7 | Proposed RDBMS must support Unicode character set, as well as official languages of North Macedonia and English language. |
| 2.8 | Proposed RDBMS must support a Web browser based console interface and remote administration utility for administration, maintenance, backup/recovery, monitoring and tuning. |
| 2.9 | Proposed RDBMS must have built-in support for developing stored procedures, functions, and packages (collections of procedures and functions). |
| 2.10 | Proposed RDBMS must have built-in support for stored procedures, functions, and packages compilation during development and before execution. |
| 2.11 | Proposed RDBMS must support permissions assigned to database objects based on privileges, users and roles. |
| 2.12 | Proposed RDBMS must provide an audit mechanism. |
| 2.13 | Proposed RDBMS must provide network encryption for the data sent between the client and server. |
| 2.14 | Proposed RDBMS must support complete and incremental backup/recovery. Backup functionality must support online operations in such way that backup of database can be done while database is up and running. |
| 2.15 | Proposed RDBMS must support automatic recovery in case of a transaction or system failure. |
| 2.16 | Proposed RDBMS must have support for alphanumeric, unstructured data, XML as well as spatial data. |
| 2.17 | Spatial features of RDBMS must support:  Spatial data must support different geometry types such as: points, multi-points, lines, line strings, multi-line strings, polygons, multi- polygons, surfaces, multiple surfaces, 3-D geometry, and point cloud storage.   * Spatial operators for determining geospatial measurements like area, distance, length and perimeter, as well as geospatial set operations like union, difference, and symmetric difference. * Data models such as: topology data model for working with data about nodes, edges, and faces in a topology, network data model to model and analyze link-node graphs to represent physical and logical networks used in transportation, etc. * Raster data to store, index, query, analyze, and deliver data as raster image and its associated metadata. * Graphs such as property and RDF (Resource Description Framework) graphs. |
| 2.18 | Proposed RDBMS must have support for Machine Learning (ML) features including but not limited to: development of ML models and ML model scoring, predictive analytics which can use ML algorithms implemented as SQL functions, and built-in integration with open-source R language. |
| 2.19 | Proposed RDBMS must have support for table and index partitioning by dividing them into smaller pieces. Table partitioning must support different partitioning methods such as: range partitioning, hash partitioning, list partitioning, and composite partitioning (combination of other methods). |
| 2.20 | RDBMS must support online operations such as table redefinition and index rebuild without database restart. |
| 2.21 | Proposed RDBMS must have built-in ability to view changes across row versions. |
| 2.22 | Proposed RDBMS must have built-in ability to rewind the TABLE to a past point in time. |
| 2.23 | Proposed RDBMS must have built-in capability to rewind the database to a prior point without the need to RESTORE the database. |
| 2.24 | Proposed RDBMS must have built-in ability to recover dropped objects. |
| 2.25 | Proposed RDBMS must be able to monitor SQL statements and analyze SQL statement execution in order to detect and diagnose database performance problems, and help administrators to proactively tune their database environment. |
| 2.26 | RDBMS must be proposed with suitable set of licenses to be installed on the database servers, on DR location. |
| 2.27 | RDBMS must include technical support including:   * Download of patches, upgrades and new releases. * 24 x 7 x 365 access to hardware and software professionals to report problems if they occur.   The Bidder is required to provide technical support for at least one year. |

E. Testing and Quality Assurance Requirements

4.1 Testing

**4.1.1 The Supplier must organize the testing in two environments at supplier premises and at beneficiary premises.**

The testing lifecycle covers the testing for a project, including the testing at the Supplier environment and in Customs environment (where the New Single Window will be deployed for operations). This covers the following testing cycles:

* Supplier environment
  + Unit Testing (UT)
  + Integration Testing (IT)
  + Factory Acceptance Testing (FAT)
* NSW environnement
  + Site Acceptance Testing (SAT)
* Patch testing
  + Qualification Testing (QT)

Each of the phases needs to be agreed between Beneficiary and Supplier. Each of the phases consist of set of documents that are needed upfront of the testing and after the testing, which will guarantee that the testing cycle was performed successfully.

**4.1.1.1 The Supplier must perform Unit Testing (UT) for all software modules/services.**

Unit testing is preliminary testing that is responsibility of the developers (Supplier responsible for implementation and development of a project). It aims to detect errors in functions and/or code modules, detect and correct bugs as much as possible during the development phase.

The deliveries that need to be provided to the Beneficiary to confirm the Unit Testing:

* The specification of the Unit Test (Test Cases) that will be performed to detect problems during development.
* Unit Testing records after performing Unit Testing. Furthermore, a record of the fixed bugs/errors should be provided to Beneficiary, as knowledge base for future reference.

**4.1.1.2 The Supplier must perform Integration Testing (IT) for all software modules/services.**

The integration testing is done in order to test the components of the software to be developed including the integration with the services that are out of the scope of the project. This will ensure that the behavior of the services (components) developed, in terms of their collaboration with other software elements communicate as needed. The testing is responsibility of the Supplier and it is performed at the Supplier environment.

The deliverables from the phase, are:

* The specification of the Integration Tests (Test Cases) that will be performed to prove the communication between the components (services)
* Integration Testing records after performing Integration Testing. Furthermore, a record of the fixed bugs/errors should be provided to Beneficiary, as knowledge base for future reference.

**4.1.1.3 The Supplier must perform Factory Acceptance Testing (FAT) for all software modules/services.**

The purpose of the Factory Acceptance Testing is to confirm the overall functionally of the system (all services components), including:

* Physical infrastructure of the system, from a software and technological point of view that is reliable and support the physical model
* The functional components of the system are matching high-quality standards and can be delivered under the form of integrated services (modules).
* Non-functional test to indicate the functioning of the environment with the new services.

The FAT testing cycle will consist of the following deliverables to be reviewed and approved by Beneficiary and Management Support project team:

* Test Design Specification (TDS) for FAT
* Acceptance Test Plan (ATP) for FAT
* Execution of the testing process, a record of the fixed bugs/errors should be provided to Beneficiary, as knowledge base for future reference.
* FAT Test Report

The testing team performing the tests and providing the documents, should be different from the development team, and it should be separate environment than the development environment.

There should be set a kick off meeting before starting the testing cycle.

**4.1.1.4 The Supplier must perform Site Acceptance Testing (SAT) for all software modules/services.**

The purpose of the Site Acceptance Testing is to confirm the overall functionally of the system (all services components), in NSW environment, including:

* Physical infrastructure of the system, from a software and technological point of view that is reliable and support the physical model
* The functional components of the system are matching high-quality standards and can be delivered under the form of integrated services (modules).
* Non-functional test to indicate the functioning of the environment with the new services.
* Functionalities and performance of the system in NSW environment

The SAT testing cycle will consist of the following deliverables to be reviewed and approved by Beneficiary and Management Support project team:

* Test Design Specification (TDS) for SAT
* Acceptance Test Plan (ATP) for SAT
* Execution of the testing process, a record of the fixed bugs/errors should be provided to Beneficiary, as knowledge base for future reference.
* SAT Test Report

The team providing the documents will be the same as for FAT testing deliverables. The setting up of the environment is responsibility of the maintenance team of Beneficiary (either Supplier that will do operation of the system or the Supplier that is developing the system) and the deployment of the new system as well. In order to provide this, this team needs to have the following documents:

* Installation manual
* Integration manual
* Administration manual

All documents need to be provided by the development team, and need to be reviewed and approved by Beneficiary. These documents will be also used for operations and maintenance during production.

If the maintenance team is not selected, the testing can be done by the same team that performed FAT, but must be followed by Beneficiary and Management Support project team representatives.

Part of the TDS, set of test cases are needed for proving the readiness of the platform for SAT, which will prove that SAT cycles can start.

There should be set a kick off meeting before starting the SAT cycle.

**4.1.1.5 The Supplier must perform Qualification Testing (QT).**

The QT cycle will ensure delivering a patch (or service pack) to an environment (can be FAT, SAT, Production). It will cover the following deliverables:

* Test Design Specification (TDS) for QT
* Acceptance Test Plan (ATP) for QT
* Execution of the testing process, a record of the fixed bugs/errors should be provided to Beneficiary, as knowledge base for future reference.
* QT Test Report

If the maintenance team is not selected, the testing can be done by the same team that performed FAT/SAT, but must be followed by Beneficiary and Management Support project team representatives.

**4.1.1.6 The Supplier must deliver the testing documentation for the testing processes.**

The base document used as input for the testing cycles is the Functional Specification and the Technical Design Specification documents. In essence, all the functional requirements should be mapped with test case in the Test Design Specification.

The following documents are needed to be delivered as part of the test cycles:

|  |  |  |
| --- | --- | --- |
| **Deliverable identification** | **Testing Phase** | **Deliverable Description** |
| *Master Test Plan (MTP)* | Conduct FAT, SAT | A test plan which describes the overall test approach for testing an application or system. |
| *Unit Testing records* | Conduct UT | The outcome of the UT will be stored in UT Report with reference to the bugs/errors and the resolution of them |
| *Integration Testing records* | Conduct IT | The outcome of the IT will be stored in IT Report with reference to the bugs/errors and the resolution of them |
| *Acceptance Test Plan (ATP)* for FAT | Conduct FAT Process | A test plan which is required per test phase and which details the specific approach, scope, planning etc. per test phase. It also lists the test cases and scenarios to be run per specific test phase. It covers functional as well as non-functional test cases. It is derived from the MTP and the TDS. |
| *Acceptance Test Plan (ATP) for SAT* | Support SAT Processes | A test plan which is required per test phase and which details the specific approach, scope, planning etc. per test phase. It also lists the test cases and scenarios to be run per specific test phase. It covers functional as well as non-functional end to end test cases (integration tests). It is derived from the MTP and the TDS. |
| *Acceptance Test Plan (ATP) for QT* | Support QT Processes | A test plan which is required per test phase and which details the specific approach, scope, planning etc. per test phase. It also lists the test cases and scenarios to be run per specific test phase. It covers functional as well as non-functional test cases. It is derived from the MTP and the TDS. |
| *Test Design Specification (TDS) for FAT and SAT* | Support FAT/SAT Processes | Detailed specifications defining all the test cases, scripts and dependencies, and describing corresponding input data and expected results. The TDS document may be composed of several parts such as TDS-FTS (Functional Test Scenario), TDS-PTS (Performance Test Scenario), TDS-S2STP (System-to-System Test Plan), TDS-UITP (User Interface Test Plan), TDS-PTP (Performance Test Plan), TDS-SVTP (Security and Vulnerability Test Plan). The exact details of each document are to be agreed with Beneficiary and the Management Support project team. |
| *Test Design Specifications (TDS) for Qualification Testing* | Support QT Processes | Detailed specifications defining all the test cases scripts and dependencies, and describing corresponding input data and expected results related to functional and non-functional aspects to cover the patch. |
| *UT Testing Report* | Support UT Processes | Documentary evidence of test execution. |
| *IT Test Report* | Support IT Processes | Documentary evidence of test execution. |
| *FAT Test Report* | Support FAT Processes | Documentary evidence of test execution, to be compared with expected results described in the TDS. Test reports include test tools logs and minutes of the test related meetings. |
| *SAT Test Report* | Support SAT Processes | Documentary evidence of test execution, to be compared with expected results described in the TDS. Test reports include test tools logs and minutes of the test related meetings. |
| *QT Test Report* | Support QT Processes | Documentary evidence of test execution, to be compared with expected results described in the TDS. Test reports include test tools logs and minutes of the test related meetings. |

F. Service Specifications – Recurrent Cost Items

5.2 Technical Support

5.2.1 The Supplier MUST provide the following services under the Contract for a period of twelve months, following the successful implementation and acceptance of the system (as specified in the bidding documents).

5.2.1.1User support / hot line. Supplier shall provide support to end users of Software Solution after the handover of the system if the problem cannot be resolved by the National Help Desk. The end users will send requests for support to the National Help Desk through a Help Desk application provided by Supplier, in order to have track of all the request and responses/ resolutions.

The Supplier is obliged to provide timely and adequate technical support that may be provided in different ways, as follows:

* + by telephone - the response time for providing this kind of support from the moment of reporting the deficiency is 30 minutes
  + e-mail - the response time for providing this kind of support from the moment of reporting the deficiency is 120 minutes
  + remote access – the response time for providing this kind of support from the moment of reporting the deficiency is 180 minutes
  + arrival at the location – the response time for providing this kind of support from the time of reporting the deficiency is 24-hour.

The specified response times are valid during the working week, in the time in which the end users effectively uses the information system.

5.2.1.2 Technical Assistance. The Supplier is required to guarantee the availability for technical support upon completion of the project for a period of at least twelve months.

5.2.1.3 Maintenance Services: The Software Solution maintenance should keep it operational and relevant against its business goals. Maintenance for purpose of this project encapsulate:

* Corrective maintenance: changes to software solution as requested by end user, with aim to remove identified problems;
* Adaptive maintenance: changes to software solution as requested by changes in business environment, with aim to keep the solution relevant in changed environment;
* Adaptive maintenance: changes to software solution as requested from Legal changes;
* Perfective maintenance: changes to software solution in order to improve performances, usability, functionality and user experience;
* Preventive maintenance: modifications of software solution in order to prevent latent errors before those errors can bring software solution to halt or break.

The Supplier is required to guarantee the availability of the software solution maintenance upon completion of the project for a period of at least twelve months.

**Service Response Times (Classification)**

Supplierwill use all reasonable best efforts to work for the prompt resolution of software faults and will respond to Client as per the target service level, response and resolution times set out below by using a dedicated Virtual Ticket Case registration system e-mail address for each issue. Maximum turnaround time of response will be based on the following severity level response time:

|  |  |
| --- | --- |
| ***Severity Level*** | ***Response/Solution Time*** |
| 1 | Acknowledge within one (1) hour; solution (including option of workaround acceptable to NSW/CA as necessary) within twelve (12) hours. |
| 2 | Acknowledge within one (1) hour; solution (including option of workaround acceptable to NSW/CA as necessary) within thirty-six (36) hours. |
| 3 | Acknowledge within one (3) hours; solution (including option of workaround acceptable to NSW/CA as necessary) within four (4) business days. |
| 4 | Acknowledge within one (5) hours; solution (including option of workaround acceptable to NSW/CA as necessary) within six (6) business days, unless otherwise agreed in writing by the NSW/CA. |

|  |  |
| --- | --- |
| ***Severity Level*** | ***Description*** |
| 1 | An Error that has a critical impact on the development, deployment, or operational use of the Software and/or System, resulting in the inability to continue to deploy or use the Software and/or System as required or intended.  A Severity 1 Error does not have a reasonable workaround, cannot reasonably be corrected by adding to or changing the Documentation. |
| 2 | An Error that causes a severe restriction on the development, deployment, or operational use of the Software and/or System, resulting in the restricted ability to continue to deploy or use the Software and/or System.  A Severity 2 Error does not have a reasonable workaround, cannot reasonably be corrected by adding to or changing the Documentation |
| 3 | An Error that causes limitations that is not critical or severe to the development, deployment, or operational use of the Software and/or System.  A Severity 3 Error has a reasonable workaround. |
| 4 | An Error that causes a slight inconvenience to the development, deployment, or operational use of the Software and/or System.  A Severity 4 Error has a reasonable workaround. |

**Implementation Schedule**

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[B. Site Table(s) 368](#_Toc454958755)

[C. Table of Holidays and Other Non-Working Days 368](#_Toc454958756)

A. Implementation Schedule Table

[Specify **desired installation and acceptance dates for all items in Schedule below, modifying the sample line items and sample table entries as needed.**]

| Line Item No. | Subsystem / Item | Deliverables | Installation (weeks from Effective Date) | Acceptance (weeks from Effective Date) | Liquidated Damages Milestone |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
| **0** | **Inception Phase** | **Inception Report** | **W4** | **W5** | NO |
|  | 0.1 Project Plan | Project Plan |  |  |  |
| **1** | **Define, validate the objectives and scope** | **Project Requirements Document**  **Project Methodology Document** | **W12** | **W16** | **YES** |
| **2** | **Specification Phase 1** | **Functional Specification (Design document)** | **W16** | **W24** | **YES** |
|  | 2.1 High Level Architecture Models  2.2 Test Strategy  2.3 Master Test Plan  2.4 Test Design Specification  2.5 Detailed Architecture Models  2.6 Functional Specification | 2.1 High Level Enterprise Architecture Models   * High Level Business Architecture * High Level Data Architecture * High Level Application Architecture * High Level Technology Architecture   1. Test Strategy Document   2. Master Test Plan Document   3. Test Design Specification Document   4. Detail Enterprise Architecture Models * Detail Business Architecture (L3) * Detail Data Architecture (L3) * Detail Application Architecture (L3)   2.6 Functional Specification Document |  |  |  |
| **3** | **Development** | **Deployment software packages:** | **W24** | **W38** | **YES** |
|  | 3.1 NSW Trader Portal  3.2 NSW Help Desk  3.3 Registration of Traders and Competent Authority Service  3.4 LPCO Application  3.5 LPCO Management  3.6 Payment Management  3.7 Payment Processing  3.8 Notification Management  3.9 LPCO Designer  3.10 Inspection Control Results  3.11 Document Management  3.12 LPCO Workflow Management  3.13 NSW Risk Management  3.14 Referent Tables  3.15 Reporting Service  3.16 Data Converter | * Software Development Package for subsystem/item 3.1 to 3.16 * Technical Specification Document for subsystem/item 3.1 to 3.16 |  |  |  |
| **4.** | **Testing** | **Testing documents package:** | **W30** | **W38** | **YES** |
|  | 4.1 NSW Trader Portal  4.2 NSW Help Desk  4.3 Registration of Traders and Competent Authority  4.4 LPCO Application  4.5 LPCO Management  4.6 Payment Management  4.7 Payment Processing  4.8 Notification Management  4.9 LPCO Designer  4.10 Inspection Control Results  4.11 Document Management  4.12 LPCO Workflow  4.13 NSW Risk Management  4.14 Referents Tables  4.15 Reporting Service  4.16 Data Converter | * Acceptance Test Plan Document for subsystem/items 4.1 to 4.16 * Automated Test Cases (Scripts) for subsystem/items 4.1 to 4.16 * Test Data for subsystem/items 4.1 to 4.16 * Test Report Document for subsystem/items 4.1 to 4.16 |  |  |  |
| **5** | **Integration and Testing** | **Integration and Testing Report** | **W38** | **W40** | **YES** |
|  | 5.1 Readiness of Environment  5.2 Acceptance Test Plan for FAT  5.3 FAT Automated Test Cases (Scripts) for Integration  5.4 FAT Test Data  5.5 FAT Report | FAT Reports:   * FAT Readiness of Environment Report * Acceptance Test Plan for FAT document * Automated Test Cases (Scripts) for FAT * FAT Test Data * FAT Report Document |  |  |  |
| **6.** | **Hardware Environment Readiness** | **Hardware environment readiness** | **W41** | **W42** | **YES** |
|  | 6.1 Hardware Environment Readiness | * Delivery and Installation of Hardware and Licenses (responsibility of the supplier is to deliver the hardware maximum four months prior start of task number 6) * Hardware Environment Readiness Report |  |  |  |
|  | 6.2 Software license – Relational Database Management System   * Type 1 (Gov) 4 for Primary Site * Type 2 (Gov) for DR site | * Delivery and Installation of Licenses maximum four months prior start of task number 6 |  |  |  |
| **7.** | **Software Environment Readiness** | **Software environment readiness** | **W41** | **W42** | **YES** |
|  | 7.1 Software Environment Readiness | * Software Environment Readiness Report * Delivery and installation of licenses |  |  |  |
| **8.** | **Pilot Deployment** | **Pilot Deployment software packages:** | **W42** | **W44** | **YES** |
|  | 8.1 NSW Trader Portal  8.2 NSW Help Desk  8.3 Registration of Traders and Competent Authority  8.4 LPCO Application  8.5 LPCO Management  8.6 Payment Management  8.7 Payment Processing  8.8 Notification Management  8.9 LPCO Designer  8.10 Inspection Control Results  8.11 Document Management  8.12 LPCO Workflow Management  8.13 NSW Risk Management Module  8.14 Referents Tables  8.15 Reporting Service  8.16 Data Converter | Deployment Package for subsystem/items 8.1 to 8.16 |  |  |  |
| **9.** | **Specification Phase 2** | **Specification phase 2 packages:** | **W46** | **W48** | **YES** |
|  | 9.1 NSW Trader Portal  9.2 NSW Help Desk  9.3 Registration of Traders and Competent Authority  9.4 LPCO Application  9.5 LPCO Management  9.6 Payment Management  9.7 Payment Processing  9.8 Notification Management  9.9 LPCO Designer  9.10 Inspection Control Results  9.11 Document Management  9.12 LPCO Workflow Management  9.13 NSW Risk Management Module  9.14 Referents Tables  9.15 Reporting Service  9.16 Data Converter | * Technical Specification for subsystem/items 9.1 to 9.16 * Administration Manual Specification for subsystem/items 9.1 to 9.16 * Integration Manual Specification for subsystem/items 9.1 to 9.16 * User Guide Specification for subsystem/items 9.1 to 9.16 |  |  |  |
| **10.** | **Capacity Building** | **Capacity building plan and implementation (Trainings and Workshops)** | **W46** | **W48** | **YES** |
|  | 10.1 Training Needs Assessment  10.2 Trainings and Workshops | * Training Needs Assessment Document and Plan * Trainings and Workshops |  |  |  |
| **11.** | **Test Pilot Stage SAT** | **SAT Reports** | **W46** | **W48** | **YES** |
|  | 11.1 Readiness of Environment  11.2 Acceptance Test Plan for SAT  11.3 SAT Automated Test Cases (Scripts) for Integration  11.4 SAT Test Data  11.5 SAT Report | * SAT Readiness of Environment Report * Acceptance Test Plan for SAT document * Automated Test Cases (Scripts) for SAT * SAT Test Data * SAT Report Document |  |  |  |
| **12.** | **Rollout Hardware Environment Readiness** | **Hardware environment readiness** | **W50** | **W52** | **YES** |
|  | 12.1 Rollout Hardware Environment Readiness | * Delivery and Installation of Hardware * Rollout Hardware Environment Readiness Report |  |  |  |
| **13.** | **Rollout Software Environment Readiness** | **Software environment readiness** | **W50** | **W52** | **YES** |
|  | 13.1 Rollout Software Environment Readiness | * Rollout Software Environment Readiness Report * Delivery and installation of licenses Report |  |  |  |
| **14.** | **Rollout Deployment** | **Rollout Deployment package:** | **W50** | **W52** | **YES** |
|  | 14.1 NSW Trader Portal  14.2 NSW Help Desk  14.3 Registration of Traders and Competent Authority  14.4 LPCO Application  14.5 LPCO Management  14.6 Payment Management  14.7 Payment Processing  14.8 Notification Management  14.9 LPCO Designer  14.10 Inspection Control Results  14.11 Document Management  14.12 LPCO Workflow Management  14.13 NSW Risk Management Module  14.14 Referents Tables  14.15 Reporting Service  14.16 Data Converter | Deployment Package for subsystem/items 14.1 to 14.16 |  |  |  |
| **15.** | **Rollout Stage** | **Source Code** | **W53** | **W54** | **YES** |
|  | 15.1 NSW Trader Portal  15.2 NSW Help Desk  15.3 Registration of Traders and Competent Authority  15.4 LPCO Application  15.5 LPCO Management  15.6 Payment Management  15.7 Payment Processing  15.8 Notification Management  15.9 LPCO Designer  15.10 Inspection Control Results  15.11 Document Management  15.12 LPCO Workflow Management  15.13 NSW Risk Management Module  15.14 Referents Tables  15.15 Reporting Service  15.16 Data Converter | Source Code for subsystem/items 15.1 to 15.16 |  |  |  |

**\*Clarification Note:**

* 1. The Supplier must perform software development with development tools used by software developers, architects, and engineers to create visual representations, models, and documentation that describe the architecture, components, and interactions of a software system. These tools must facilitate the design process, aiding in the planning, visualization, and communication of complex software systems. Here are some common features and capabilities of software system design tools:

i.      Diagramming and Modeling which include UML Diagrams: Unified Modeling Language diagrams, including class diagrams, sequence diagrams, activity diagrams, and more, to represent software structure and behavior.

ii.      Flowcharts: To depict workflow, processes, and logic.

iii.      Entity-Relationship Diagrams (ERDs): To model data structures and relationships.

iv.      Architectural Diagrams: To illustrate the system's overall architecture, including components, layers, and interfaces.

 v.      Integration and Collaboration.

vi.      Documentation Generation.

vii.      Validation and Analysis

viii.      Requirements Traceability: To enable linking design elements to specific requirements, ensuring that the design aligns with the project's requirements.

ix.      Export and Import: The ability to import existing code or design artifacts and export design data for use in other development phases or tools.

x.      Version Control Integration

* 1. Divide the development into phases or sprints.
  2. User Interface Design with create a user-friendly and intuitive interface for users to interact with the NSW system

d. Security Measures or layers:

i.      Implement robust security measures to protect sensitive trade data and ensure data integrity.

ii.      Develop a contingency plan and disaster recovery procedures to ensure business continuity in case of system failures or disasters.

**Note:** Refer to the System Inventory Table(s) for the specific items and components that constitute the Subsystems or item. Refer to the Site Table(s) below for details regarding the site and the site code.

- - indicates not applicable. “Indicates repetition of table entry above.

B. Site Table(s)

[Specify: **the detailed information regarding the site(s) at which the System is to be operated**]

| Site Code | Site | City / Town / Region | Primary Street Address | Drawing Reference No. (if any) |
| --- | --- | --- | --- | --- |
| HQ | Customs Administration Headquarters | Skopje | Customs Administration of Republic of North Macedonia, str. Lazar Licenoski 13, 1000 Skopje |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

C. Table of Holidays and Other Non-Working Days

[Specify: **the days for each month for each year that are non-working days, due to Holidays or other business reasons (other than weekends).**]

| Month | 20xy | 20xy+1 | 20xy+2 | .... |  |  | ... | 20zz |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |  |  |
| 7 |  |  |  |  |  |  |  |  |
| 8 |  |  |  |  |  |  |  |  |
| 9 |  |  |  |  |  |  |  |  |
| 10 |  |  |  |  |  |  |  |  |
| 11 |  |  |  |  |  |  |  |  |
| 12 |  |  |  |  |  |  |  |  |

**System Inventory Tables**

## Notes on preparing the System Inventory Tables

The System Inventory Tables detail:

(a) for each Subsystem (Deliverable) indicated in the Implementation Schedule, the Information Technologies, Materials, and other Goods and Services that comprise the System to be supplied and/or performed by the Supplier;

(b) the quantities of such Information Technologies, Materials, and other Goods and Services;

(c) the sites and the location of each on a specific site (e.g., building, floor, room, department, etc.)

(d) the cross references to the relevant section of the Technical Requirements where that item is described in greater detail

The Purchaser should modify these tables, as required, to suit the particulars of the System (and Subsystems) to be supplied and installed. The sample text provided for various sections of the tables is illustrative only and should be modified or deleted as appropriate.

There are two sample formats given for the System Inventory Tables: one for the Supply and Installation cost items and the second for Recurrent Cost Items needed (if any). The second version of the table permits the Purchaser to obtain price information about items that are needed during the Warranty Period.

## Table of Contents: System Inventory Tables

[System Inventory Table (Supply and Installation Cost Items)  *[ insert: identifying number ]* 368](#_Toc448759416)

[System Inventory Table (Recurrent Cost Items) *[ insert: identifying number ] – Warranty Period* 368](#_Toc448759417)

System Inventory Table (Supply and Installation Cost Items)  *[ insert: identifying number ]*

Line item number: [ specify: relevant line item number from the Implementation Schedule (e.g., 1.1) ]

[ as necessary for the supply and installation of the System, specify: **the detailed components and quantities in the System Inventory Table below for the line item specified above, modifying the sample components and sample table entries as needed.** Repeat the System Inventory Table as needed to cover each and every line item in the Implementation Schedule that requires elaboration. ]

| Component  No. | Component | Relevant Technical Specifications  No. | Additional Site Information (e.g., building, floor, department, etc.) | Quantity |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| **0** | **Inception Phase** |  |  |  |
|  | 0.1 Project Plan |  |  |  |
| **1** | **Define, validate the objectives and scope** |  |  |  |
| **2** | **Specification Phase 1** |  |  | Lump Sum |
|  | 2.1 High Level Architecture Models  2.2 Test Strategy  2.3 Master Test Plan  2.4 Test Design Specification  2.5 Detailed Architecture Models  2.6 Functional Specification |  |  |  |
| **3** | **Development** |  |  | Lump Sum |
|  | 3.1 NSW Trader Portal  3.2 NSW Help Desk  3.3 Registration of Traders and Competent Authority Service  3.4 LPCO Application  3.5 LPCO Management  3.6 Payment Management  3.7 Payment Processing  3.8 Notification Management  3.9 LPCO Designer  3.10 Inspection Control Results  3.11 Document Management  3.12 LPCO Workflow Management  3.13 NSW Risk Management  3.14 Referent Tables  3.15 Reporting Service  3.16 Data Converter |  |  |  |
| **4.** | **Testing** |  |  | Lump Sum |
|  | 4.1 NSW Trader Portal  4.2 NSW Help Desk  4.3 Registration of Traders and Competent Authority  4.4 LPCO Application  4.5 LPCO Management  4.6 Payment Management  4.7 Payment Processing  4.8 Notification Management  4.9 LPCO Designer  4.10 Inspection Control Results  4.11 Document Management  4.12 LPCO Workflow  4.13 NSW Risk Management  4.14 Referents Tables  4.15 Reporting Service  4.16 Data Converter |  |  |  |
| **5** | **Integration and Testing** |  |  | Lump Sum |
|  | 5.1 Readiness of Environment  5.2 Acceptance Test Plan for FAT  5.3 FAT Automated Test Cases (Scripts) for Integration  5.4 FAT Test Data  5.5 FAT Report |  |  |  |
| **6.** | **Hardware Environment Readiness** |  |  | Lump Sum |
|  | 6.1 Hardware Environment Readiness  6.2 Software license – Relational Database Management System  • Type 1 (Gov) 4 for Primary Site  • Type 2 (Gov) 2 for DR site |  |  |  |
| **7.** | **Software Environment Readiness** |  |  | Lump Sum |
|  | 7.1 Software Environment Readiness |  |  |  |
| **8.** | **Pilot Deployment** |  |  | Lump Sum |
|  | 8.1 NSW Trader Portal  8.2 NSW Help Desk  8.3 Registration of Traders and Competent Authority  8.4 LPCO Application  8.5 LPCO Management  8.6 Payment Management  8.7 Payment Processing  8.8 Notification Management  8.9 LPCO Designer  8.10 Inspection Control Results  8.11 Document Management  8.12 LPCO Workflow Management  8.13 NSW Risk Management Module  8.14 Referents Tables  8.15 Reporting Service  8.16 Data Converter |  |  |  |
| **9.** | **Specification Phase 2** |  |  | Lump Sum |
|  | 9.1 NSW Trader Portal  9.2 NSW Help Desk  9.3 Registration of Traders and Competent Authority  9.4 LPCO Application  9.5 LPCO Management  9.6 Payment Management  9.7 Payment Processing  9.8 Notification Management  9.9 LPCO Designer  9.10 Inspection Control Results  9.11 Document Management  9.12 LPCO Workflow Management  9.13 NSW Risk Management Module  9.14 Referents Tables  9.15 Reporting Service  9.16 Data Converter |  |  |  |
| **10.** | **Capacity Building** |  |  | Lump Sum |
|  | 10.1 Training Needs Assessment  10.2 Trainings and Workshops |  |  |  |
| **11.** | **Test Pilot Stage SAT** |  |  | Lump Sum |
|  | 11.1 Readiness of Environment  11.2 Acceptance Test Plan for SAT  11.3 SAT Automated Test Cases (Scripts) for Integration  11.4 SAT Test Data  11.5 SAT Report |  |  |  |
| **12.** | **Rollout Hardware Environment Readiness** |  |  | Lump Sum |
|  | 12.1 Rollout Hardware Environment Readiness |  |  |  |
| **13.** | **Rollout Software Environment Readiness** |  |  | Lump Sum |
|  | 13.2 Rollout Software Environment Readiness |  |  |  |
| **14.** | **Rollout Deployment** |  |  | Lump Sum |
|  | 14.1 NSW Trader Portal  14.2 NSW Help Desk  14.3 Registration of Traders and Competent Authority  14.4 LPCO Application  14.5 LPCO Management  14.6 Payment Management  14.7 Payment Processing  14.8 Notification Management  14.9 LPCO Designer  14.10 Inspection Control Results  14.11 Document Management  14.12 LPCO Workflow Management  14.13 NSW Risk Management Module  14.14 Referents Tables  14.15 Reporting Service  14.16 Data Converter |  |  |  |
| **15.** | **Rollout Stage** |  |  | Lump Sum |
|  | 15.1 NSW Trader Portal  15.2 NSW Help Desk  15.3 Registration of Traders and Competent Authority  15.4 LPCO Application  15.5 LPCO Management  15.6 Payment Management  15.7 Payment Processing  15.8 Notification Management  15.9 LPCO Designer  15.10 Inspection Control Results  15.11 Document Management  15.12 LPCO Workflow Management  15.13 NSW Risk Management Module  15.14 Referents Tables  15.15 Reporting Service  15.16 Data Converter |  |  |  |

**Note:** - - indicates not applicable. “ indicates repetition of table entry above.

System Inventory Table (Recurrent Cost Items) *[ insert: identifying number ] –*

**NOT APPLICABLE**

Line item number: [ specify: **relevant line item number from the Implementation Schedule (e.g., y.1)** ]

| Component  No. | Component | Relevant Technical Specifications No. | Y1 | Y2 | Y3 |
| --- | --- | --- | --- | --- | --- |
| 1. |  |  |  |  |  |
| 2. |  |  |  |  |  |
| 3. |  |  |  |  |  |
| 3.1 |  |  |  |  |  |
| 3.2 |  |  |  |  |  |
| 3.3 |  |  |  |  |  |
|  | … |  |  |  |  |

**Note:** - - indicates not applicable. “ indicates repetition of table entry above.

**Background and Informational Materials**

The following documents will be provided as Background and Informational Materials:

* TC1 - Blueprint Report on the Legal and Regulatory Framework
* TC2 - Blueprint Report on the Governance and Operating Model
* TC3 - Blueprint Report on the Revenue Model and Fee Structure
* TC4 - Blueprint Report on the Functional and Technical Architecture Specifications
* TC5 - Blueprint Report on the Service Level Agreements for Participating Agencies
* TC6ab - Blueprint Report on the Business Process Re-engineering and Data Harmonization
* TC6c - Blueprint Report on the Change Management and Communications Strategy
* TC7 - Blueprint Report on the Risk Management Strategy and Model
* TC8 - Blueprint Report on the Implementation and Capacity Building Strategy

PART 3 – Conditions of Contract and Contract Forms

Section VIII - General Conditions of Contract

## Table of Clauses

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**General Conditions of Contract**

A. Contract and Interpretation

|  |  |
| --- | --- |
| 1. Definitions | 1.1 In this Contract, the following terms shall be interpreted as indicated below. |
|  | (a) contract elements  (i) **“Contract”** means the Contract Agreement entered into between the Purchaser and the Supplier, together with the Contract Documents referred to therein. The Contract Agreement and the Contract Documents shall constitute the Contract, and the term “the Contract” shall in all such documents be construed accordingly.  (ii) **“Contract Documents”** means the documents specified in Article 1.1 (Contract Documents) of the Contract Agreement (including any amendments to these Documents).  (iii) **“Contract Agreement”** means the agreement entered into between the Purchaser and the Supplier using the form of Contract Agreement contained in the Sample Contractual Forms Section of the bidding documents and any modifications to this form agreed to by the Purchaser and the Supplier. The date of the Contract Agreement shall be recorded in the signed form.  (iv) **“GCC”** means the General Conditions of Contract.  (v) **“SCC”** means the Special Conditions of Contract.  (vi) **“Technical Requirements”** means the Technical Requirements in Section VII of the bidding documents.  (vii) **“Implementation Schedule”** means the Implementation Schedule in Section VII of the bidding documents.  (viii) **“Contract Price”** means the price or prices defined in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement.  (ix) **“Procurement Regulations”** refers to the edition **specified in the SCC** of the World Bank “Procurement Regulations for IPF Borrowers”.  (x) **“bidding documents”** refers to the collection of documents issued by the Purchaser to instruct and inform potential suppliers of the processes for bidding, selection of the winning bid, and Contract formation, as well as the contractual conditions governing the relationship between the Purchaser and the Supplier. The General and Special Conditions of Contract, the Technical Requirements, and all other documents included in the bidding documents reflect the Procurement Regulations that the Purchaser is obligated to follow during procurement and administration of this Contract.  (xi) “**Sexual Exploitation and Abuse” “(SEA)”** means the following:  **Sexual Exploitation** is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another.  **Sexual Abuse** is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.  (xii) **“Sexual Harassment” “(SH)”** is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Supplier’s Personnel with other Supplier’s, Subcontractors’ or Purchaser’s personnel. |
|  | (b) entities   1. **“Purchaser”** means the entity purchasing the Information System, as **specified in the SCC.** 2. **“Purchaser’s Personnel”** meansall staff, labor and other employees of the Project Manager and of the Purchaserengaged in fulfilling the Purchaser’s obligations under the Contract; and any other personnel identified as Purchaser’s Personnel, by a notice from the Purchaser to the Supplier; 3. **“Project Manager”** means the person **named as such in the SCC** or otherwise appointed by the Purchaser in the manner provided in GCC Clause 18.1 (Project Manager) to perform the duties delegated by the Purchaser. 4. **“Supplier”** means the firm or Joint Venture whose bid to **perform** the **Contract** has been accepted by the Purchaser and is named as such in the Contract Agreement. 5. **“Supplier’s Representative”** means any person **nominated** by the Supplier and named as such in the Contract Agreement or otherwise approved by the Purchaser in the manner provided in GCC Clause 18.2 (Supplier’s Representative) to perform the duties delegated by the Supplier. 6. **“Supplier’s Personnel”** means all personnel whom the Supplier utilizes in the execution of the Contract, including the staff, labor and other employees of the Supplier and each Subcontractor; and any other personnel assisting the Supplier in the execution of the Contract; 7. **“Subcontractor”** means any firm to whom any of the obligations of the Supplier, including preparation of any design or supply of any Information Technologies or other Goods or Services, is subcontracted directly or indirectly by the Supplier. 8. **“Adjudicator”** means the person named in Appendix 2 of the Contract Agreement, **appointed** by agreement between the Purchaser and the Supplier to make a decision on or to settle any dispute between the Purchaser and the Supplier referred to him or her by the parties, pursuant to GCC Clause 43.1 (Adjudication). 9. **“The World Bank”** (also called “The Bank”) means the International Bank for Reconstruction and Development (IBRD) or the International Development Association (IDA). |
|  | (c) scope  (i) “Information System,” also called “the System,” means all the Information Technologies, Materials, and other Goods to be supplied, installed, integrated, and made operational (exclusive of the Supplier’s Equipment), together with the Services to be carried out by the Supplier under the Contract.  (ii) “Subsystem” means any subset of the System identified as such in the Contract that may be supplied, installed, tested, and commissioned individually before Commissioning of the entire System.  (iii) “Information Technologies” means all information processing and communications-related hardware, Software, supplies, and consumable items that the Supplier is required to supply and install under the Contract.  (iv) “Goods” means all equipment, machinery, furnishings, Materials, and other tangible items that the Supplier is required to supply or supply and install under the Contract, including, without limitation, the Information Technologies and Materials, but excluding the Supplier’s Equipment.  (v) “Services” means all technical, logistical, management, and any other Services to be provided by the Supplier under the Contract to supply, install, customize, integrate, and make operational the System. Such Services may include, but are not restricted to, activity management and quality assurance, design, development, customization, documentation, transportation, insurance, inspection, expediting, site preparation, installation, integration, training, data migration, Pre-commissioning, Commissioning, maintenance, and technical support.  (vi) “The Project Plan” means the document to be developed by the Supplier and approved by the Purchaser, pursuant to GCC Clause 19, based on the requirements of the Contract and the Preliminary Project Plan included in the Supplier’s bid. The “Agreed Project Plan” is the version of the Project Plan approved by the Purchaser, in accordance with GCC Clause 19.2. Should the Project Plan conflict with the Contract in any way, the relevant provisions of the Contract, including any amendments, shall prevail.  (vii) “Software” means that part of the System which are instructions that cause information processing Subsystems to perform in a specific manner or execute specific operations.  (viii) “System Software” means Software that provides the operating and management instructions for the underlying hardware and other components, and is identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Systems Software. Such System Software includes, but is not restricted to, micro-code embedded in hardware (i.e., “firmware”), operating systems, communications, system and network management, and utility software.  (ix) “General-Purpose Software” means Software that supports general-purpose office and software development activities and is identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be General- Purpose Software. Such General-Purpose Software may include, but is not restricted to, word processing, spreadsheet, generic database management, and application development software.  (x) “Application Software” means Software formulated to perform specific business or technical functions and interface with the business or technical users of the System and is identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Application Software.  (xi) “Standard Software” means Software identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Standard Software.  (xii) “Custom Software” means Software identified as such in Appendix 4 of the Contract Agreement and such other Software as the parties may agree in writing to be Custom Software.  (xiii) “Source Code” means the database structures, dictionaries, definitions, program source files, and any other symbolic representations necessary for the compilation, execution, and subsequent maintenance of the Software (typically, but not exclusively, required for Custom Software).  (xiv) “Materials” means all documentation in printed or printable form and all instructional and informational aides in any form (including audio, video, and text) and on any medium, provided to the Purchaser under the Contract.  (xv) “Standard Materials” means all Materials not specified as Custom Materials.  (xvi) “Custom Materials” means Materials developed by the Supplier at the Purchaser’s expense under the Contract and identified as such in Appendix 5 of the Contract Agreement and such other Materials as the parties may agree in writing to be Custom Materials. Custom Materials includes Materials created from Standard Materials.  (xvii) “Intellectual Property Rights” means any and all copyright, moral rights, trademark, patent, and other intellectual and proprietary rights, title and interests worldwide, whether vested, contingent, or future, including without limitation all economic rights and all exclusive rights to reproduce, fix, adapt, modify, translate, create derivative works from, extract or re-utilize data from, manufacture, introduce into circulation, publish, distribute, sell, license, sublicense, transfer, rent, lease, transmit or provide access electronically, broadcast, display, enter into computer memory, or otherwise use any portion or copy, in whole or in part, in any form, directly or indirectly, or to authorize or assign others to do so.  (xviii) “Supplier’s Equipment” means all equipment, tools, apparatus, or things of every kind required in or for installation, completion and maintenance of the System that are to be provided by the Supplier, but excluding the Information Technologies, or other items forming part of the System. |
|  | (d) activities  (i) “Delivery” means the transfer of the Goods from the Supplier to the Purchaser in accordance with the current edition Incoterms specified in the Contract.  (ii) “Installation” means that the System or a Subsystem as specified in the Contract is ready for Commissioning as provided in GCC Clause 26 (Installation).  (iii) “Pre-commissioning” means the testing, checking, and any other required activity that may be specified in the Technical Requirements that are to be carried out by the Supplier in preparation for Commissioning of the System as provided in GCC Clause 26 (Installation).  (iv) “Commissioning” means operation of the System or any Subsystem by the Supplier following Installation, which operation is to be carried out by the Supplier as provided in GCC Clause 27.1 (Commissioning), for the purpose of carrying out Operational Acceptance Test(s).  (v) “Operational Acceptance Tests” means the tests specified in the Technical Requirements and Agreed Project Plan to be carried out to ascertain whether the System, or a specified Subsystem, is able to attain the functional and performance requirements specified in the Technical Requirements and Agreed Project Plan, in accordance with the provisions of GCC Clause 27.2 (Operational Acceptance Test).  (vi) “Operational Acceptance” means the acceptance by the Purchaser of the System (or any Subsystem(s) where the Contract provides for acceptance of the System in parts), in accordance with GCC Clause 27.3 (Operational Acceptance). |
|  | (e) place and time  (i) “Purchaser’s Country” is the **country named in the SCC.**  (ii) “Supplier’s Country” is the country in which the Supplier is legally organized, as named in the Contract Agreement.  (iii) **Unless otherwise specified in the SCC** “Project Site(s)” means the place(s) in the Site Table in the Technical Requirements Section for the supply and installation of the System.  (iv) “Eligible Country” means the countries and territories eligible for participation in procurements financed by the World Bank as defined in the Procurement Regulations.  (v) “Day” means calendar day of the Gregorian Calendar.  (vi) “Week” means seven (7) consecutive Days, beginning the day of the week as is customary in the Purchaser’s Country.  (vii) “Month” means calendar month of the Gregorian Calendar.  (viii) “Year” means twelve (12) consecutive Months.  (ix) “Effective Date” means the date of fulfillment of all conditions specified in Article 3 (Effective Date for Determining Time for Achieving Operational Acceptance) of the Contract Agreement, for the purpose of determining the Delivery, Installation, and Operational Acceptance dates for the System or Subsystem(s).  (x) “Contract Period” is the time period during which this Contract governs the relations and obligations of the Purchaser and Supplier in relation to the System, as **unless otherwise specified in the SCC,** the Contract shall continue in force until the Information System and all the Services have been provided, unless the Contract is terminated earlier in accordance with the terms set out in the Contract**.**  (xi) “Defect Liability Period” (also referred to as the “Warranty Period”) means the period of validity of the warranties given by the Supplier commencing at date of the Operational Acceptance Certificate of the System or Subsystem(s), during which the Supplier is responsible for defects with respect to the System (or the relevant Subsystem[s]) as provided in GCC Clause 29 (Defect Liability).  (xii) “The Coverage Period” means the Days of the Week and the hours of those Days during which maintenance, operational, and/or technical support services (if any) must be available.  (xiii) The Post-Warranty Services Period” means the number of years **defined in the SCC** (if any), following the expiration of the Warranty Period during which the Supplier may be obligated to provide Software licenses, maintenance, and/or technical support services for the System, either under this Contract or under separate contract(s). |
| 2. Contract Documents | 2.1 Subject to Article 1.2 (Order of Precedence) of the Contract Agreement, all documents forming part of the Contract (and all parts of these documents) are intended to be correlative, complementary, and mutually explanatory. The Contract shall be read as a whole. |
| 3. Interpretation | 3.1 Governing Language |
|  | 3.1.1 **Unless otherwise specified in the SCC**, all Contract Documents and related correspondence exchanged between Purchaser and Supplier shall be written in the language of these bidding documents (English)**,** and the Contract shall be construed and interpreted in accordance with that language.  3.1.2 If any of the Contract Documents or related correspondence are prepared in a language other than the governing language under GCC Clause 3.1.1 above, the translation of such documents into the governing language shall prevail in matters of interpretation. The originating party, with respect to such documents shall bear the costs and risks of such translation.  3.2 Singular and Plural  The singular shall include the plural and the plural the singular, except where the context otherwise requires.  3.3 Headings  The headings and marginal notes in the GCC are included for ease of reference and shall neither constitute a part of the Contract nor affect its interpretation.  3.4 Persons  Words importing persons or parties shall include firms, corporations, and government entities.  3.5 Incoterms  Unless inconsistent with any provision of the Contract, the meaning of any trade term and the rights and obligations of parties thereunder shall be as prescribed by the Incoterms  Incoterms means international rules for interpreting trade terms published by the International Chamber of Commerce (latest edition), 38 Cours Albert 1er, 75008 Paris, France.  3.6 Entire Agreement  The Contract constitutes the entire agreement between the Purchaser and Supplier with respect to the subject matter of Contract and supersedes all communications, negotiations, and agreements (whether written or oral) of parties with respect to the subject matter of the Contract made prior to the date of Contract.  3.7 Amendment  No amendment or other variation of the Contract shall be effective unless it is in writing, is dated, expressly refers to the Contract, and is signed by a duly authorized representative of each party to the Contract.  3.8 Independent Supplier  The Supplier shall be an independent contractor performing the Contract. The Contract does not create any agency, partnership, joint venture, or other joint relationship between the parties to the Contract.  Subject to the provisions of the Contract, the Supplier shall be solely responsible for the manner in which the Contract is performed. All employees, representatives, or Subcontractors engaged by the Supplier in connection with the performance of the Contract shall be under the complete control of the Supplier and shall not be deemed to be employees of the Purchaser, and nothing contained in the Contract or in any subcontract awarded by the Supplier shall be construed to create any contractual relationship between any such employees, representatives, or Subcontractors and the Purchaser.  3.9 Joint Venture  If the Supplier is a Joint Venture of two or more firms, all such firms shall be jointly and severally bound to the Purchaser for the fulfillment of the provisions of the Contract and shall designate one of such firms to act as a leader with authority to bind the Joint Venture. The composition or constitution of the Joint Venture shall not be altered without the prior consent of the Purchaser.  3.10 Nonwaiver  3.10.1 Subject to GCC Clause 3.10.2 below, no relaxation, forbearance, delay, or indulgence by either party in enforcing any of the terms and conditions of the Contract or the granting of time by either party to the other shall prejudice, affect, or restrict the rights of that party under the Contract, nor shall any waiver by either party of any breach of Contract operate as waiver of any subsequent or continuing breach of Contract.  3.10.2 Any waiver of a party’s rights, powers, or remedies under the Contract must be in writing, must be dated and signed by an authorized representative of the party granting such waiver, and must specify the right and the extent to which it is being waived.  3.11 Severability  If any provision or condition of the Contract is prohibited or rendered invalid or unenforceable, such prohibition, invalidity, or unenforceability shall not affect the validity or enforceability of any other provisions and conditions of the Contract.  3.12 Country of Origin  “Origin” means the place where the Information Technologies, Materials, and other Goods for the System were produced or from which the Services are supplied. Goods are produced when, through manufacturing, processing, Software development, or substantial and major assembly or integration of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components. The Origin of Goods and Services is distinct from the nationality of the Supplier and may be different. |
| 4. Notices | 4.1 Unless otherwise stated in the Contract, all notices to be given under the Contract shall be in writing and shall be sent, pursuant to GCC Clause 4.3 below, by personal delivery, airmail post, special courier, facsimile, electronic mail, or Electronic Data Interchange (EDI), with the following provisions. |
|  | 4.1.1 Any notice sent by facsimile, electronic mail, or EDI shall be confirmed within two (2) days after dispatch by notice sent by airmail post or special courier, except as otherwise specified in the Contract.  4.1.2 Any notice sent by airmail post or special courier shall be deemed (in the absence of evidence of earlier receipt) to have been delivered ten (10) days after dispatch. In proving the fact of dispatch, it shall be sufficient to show that the envelope containing such notice was properly addressed, stamped, and conveyed to the postal authorities or courier service for transmission by airmail or special courier.  4.1.3 Any notice delivered personally or sent by facsimile, electronic mail, or EDI shall be deemed to have been delivered on the date of its dispatch.  4.1.4 Either party may change its postal, facsimile, electronic mail, or EDI addresses for receipt of such notices by ten (10) days’ notice to the other party in writing.  4.2 Notices shall be deemed to include any approvals, consents, instructions, orders, certificates, information and other communication to be given under the Contract.  4.3 Pursuant to GCC Clause 18, notices from/to the Purchaser are normally given by, or addressed to, the Project Manager, while notices from/to the Supplier are normally given by, or addressed to, the Supplier's Representative, or in its absence its deputy if any. If there is no appointed Project Manager or Supplier's Representative (or deputy), or if their related authority is limited by the SCC for GCC Clauses 18.1 or 18.2.2, or for any other reason, the Purchaser or Supplier may give and receive notices at their fallback addresses. The address of the Project Manager and the fallback address of the Purchaser are as **specified in the SCC** or as subsequently established/amended. The address of the Supplier's Representative and the fallback address of the Supplier are as specified in Appendix 1 of the Contract Agreement or as subsequently established/amended. |
| 5. Governing Law | 5.1 The Contract shall be governed by and interpreted in accordance with the laws of the country **specified in the SCC**.  5.2 Throughout the execution of the Contract, the Supplier shall comply with the import of goods and services prohibitions in the Purchaser’s Country when  (a) as a matter of law or official regulations, the Borrower’s country prohibits commercial relations with that country; or  (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower’s Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country. |
| 6. Fraud and Corruption | 6.1 The Bank requires compliance with the Bank’s Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG’s Sanctions Framework, as set forth in the Appendix 1 to the GCC.  6.2 The Purchaser requires the Suppliers to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee. | |

B. Subject Matter of Contract

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| 7. Scope of the System | 7.1 Unless otherwise expressly **limited in the SCC** or Technical Requirements, the Supplier’s obligations cover the provision of all Information Technologies, Materials and other Goods as well as the performance of all Services required for the design, development, and implementation (including procurement, quality assurance, assembly, associated site preparation, Delivery, Pre-commissioning, Installation, Testing, and Commissioning) of the System, in accordance with the plans, procedures, specifications, drawings, codes, and any other documents specified in the Contract and the Agreed Project Plan. |
|  | 7.2 The Supplier shall, unless specifically excluded in the Contract, perform all such work and / or supply all such items and Materials not specifically mentioned in the Contract but that can be reasonably inferred from the Contract as being required for attaining Operational Acceptance of the System as if such work and / or items and Materials were expressly mentioned in the Contract.  7.3 The Supplier’s obligations (if any) to provide Goods and Services as implied by the Recurrent Cost tables of the Supplier’s bid, such as consumables, spare parts, and technical services (e.g., maintenance, technical assistance, and operational support), are as **specified in the SCC,** including the relevant terms, characteristics, and timings. |
| 8. Time for Commencement and Operational Acceptance | 8.1 The Supplier shall commence work on the System within the period **specified in the SCC,** and without prejudice to GCC Clause 28.2, the Supplier shall thereafter proceed with the System in accordance with the time schedule specified in the Implementation Schedule and any refinements made in the Agreed Project Plan. |
|  | 8.2 The Supplier shall achieve Operational Acceptance of the System (or Subsystem(s) where a separate time for Operational Acceptance of such Subsystem(s) is specified in the Contract) in accordance with the time schedule specified in the Implementation Schedule and any refinements made in the Agreed Project Plan, or within such extended time to which the Supplier shall be entitled under GCC Clause 40 (Extension of Time for Achieving Operational Acceptance). |
| 9. Supplier’s Responsibilities | 9.1 The Supplier shall conduct all activities with due care and diligence, in accordance with the Contract and with the skill and care expected of a competent provider of information technologies, information systems, support, maintenance, training, and other related services, or in accordance with best industry practices. In particular, the Supplier shall provide and employ only technical personnel who are skilled and experienced in their respective callings and supervisory staff who are competent to adequately supervise the work at hand. The Supplier shall ensure that its Subcontractors carryout the work on the Information System in accordance with the Contract, including complying with relevant environmental and social requirements and the obligations set out in GCC Clause 9.9.  The Supplier shall at all times take all reasonable precautions to maintain the health and safety of the Supplier’s Personnel employed for the execution of the Contract at the Project Site/s in the Purchaser’s country where the Contract is executed.  If **required in the SCC**, the Supplier shall submit to the Purchaser for its approval a health and safety manual which has been specifically prepared for the Contract.  The health and safety manual shall be in addition to any other similar document required under applicable health and safety regulations and laws.  The health and safety manual shall set out any applicable health and safety requirement under the Contract,   1. which may include: 2. the procedures to establish and maintain a safe working environment; 3. the procedures for prevention, preparedness and response activities to be implemented in the case of an emergency event (i.e. an unanticipated incident, arising from natural or man-made hazards); 4. the measures to be taken to avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases, 5. the measures to be implemented to avoid or minimize the spread of communicable diseases; and 6. any other requirements stated in the Purchaser’s Requirements. |
|  | 9.2 The Supplier confirms that it has entered into this Contract on the basis of a proper examination of the data relating to the System provided by the Purchaser and on the basis of information that the Supplier could have obtained from a visual inspection of the site (if access to the site was available) and of other data readily available to the Supplier relating to the System as at the date twenty-eight (28) days prior to bid submission. The Supplier acknowledges that any failure to acquaint itself with all such data and information shall not relieve its responsibility for properly estimating the difficulty or cost of successfully performing the Contract.  9.3 The Supplier shall be responsible for timely provision of all resources, information, and decision making under its control that are necessary to reach a mutually Agreed Project Plan (pursuant to GCC Clause 19.2) within the time schedule specified in the Implementation Schedule. Failure to provide such resources, information, and decision-making may constitute grounds for termination pursuant to GCC Clause 41.2. |
|  | 9.4 The Supplier shall acquire in its name all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the Purchaser’s Country that are necessary for the performance of the Contract, including, without limitation, visas for the Supplier’s Personnel and entry permits for all imported Supplier’s Equipment. The Supplier shall acquire all other permits, approvals, and/or licenses that are not the responsibility of the Purchaser under GCC Clause 10.4 and that are necessary for the performance of the Contract.  9.5 The Supplier shall comply with all laws in force in the Purchaser’s Country. The laws will include all national, provincial, municipal, or other laws that affect the performance of the Contract and are binding upon the Supplier. The Supplier shall indemnify and hold harmless the Purchaser from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the Supplier or its personnel, including the Subcontractors and their personnel, but without prejudice to GCC Clause 10.1. The Supplier shall not indemnify the Purchaser to the extent that such liability, damage, claims, fines, penalties, and expenses were caused or contributed to by a fault of the Purchaser. |
|  | 9.6 Any Information Technologies or other Goods and Services that will be incorporated in or be required for the System and other supplies shall have their Origin, as defined in GCC Clause 3.12, in a country that shall be an Eligible Country, as defined in GCC Clause 1.1 (e) (iv).  9.7 Pursuant to paragraph 2.2 e. of the Appendix 1 to the General Conditions of Contract, the Supplier shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the Bank and/or persons appointed by the Bank to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the Bank. The Supplier’s and its Subcontractors’ and subconsultants’ attention is drawn to GCC Clause 6.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Bank’s inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank’s prevailing sanctions procedures).  9.8 The Supplier shall conform to the sustainable procurement contractual provisions, if and as **specified in the SCC.**  9.9 **Code of Conduct**  The Supplier shall have a Code of Conduct for the Supplier’s Personnel employed for the execution of the Contract at the Project Site/s.  The Supplier shall take all necessary measures to ensure that each such personnel is made aware of the Code of Conduct including specific behaviors that are prohibited, and understands the consequences of engaging in such prohibited behaviors.  These measures include providing instructions and documentation that can be understood by such personnel, and seeking to obtain that person’s signature acknowledging receipt of such instructions and/or documentation, as appropriate.  The Supplier shall also ensure that the Code of Conduct is visibly displayed in the Project Site/s as well as, as applicable, in areas outside the Project Site/s accessible to the local community and any project affected people. The posted Code of Conduct shall be provided in languages comprehensible to the Supplier’s Personnel, Purchaser’s Personnel and the local community.  The Supplier’s Management Strategy and Implementation Plans, if applicable, shall include appropriate processes for the Supplier to verify compliance with these obligations.  9.10 The Supplier shall, in all dealings with its labor and the labor of its Subcontractors currently employed on or connected with the Contract, pay due regard to all recognized festivals, official holidays, religious or other customs, and all local laws and regulations pertaining to the employment of labor.  9.11 The Supplier, including its Subcontractors, shall comply with all applicable safety obligations. The Supplier shall at all times take all reasonable precautions to maintain the health and safety of the Supplier’s Personnel employed for the execution of Contract at the Project Site/s.  9.12 Training of Supplier’s Personnel  The Supplier shall provide appropriate training to relevant Supplier’s Personnel on any applicable environmental and social aspect of the Contract, including appropriate sensitization on prohibition of SEA, health and safety.  As stated in the Purchaser’s Requirements or as instructed by the Project Manager, the Supplier shall also allow appropriate opportunities for the relevant personnel to be trained on any applicable environmental and social aspects of the Contract by the Purchaser’s Personnel and/or other personnel assigned by the Purchaser.  The Supplier shall provide training on SEA and SH, including its prevention, to any of its personnel who has a role to supervise other Supplier’s Personnel.  9.13 Stakeholder engagements  The Supplier shall provide relevant contract- related information, as the Purchaser and/or Project Manager may reasonably request to conduct contract stakeholder engagement. “Stakeholder” refers to individuals or groups who:   * + 1. are affected or likely to be affected by the Contract; and     2. may have an interest in the Contract.   The Supplier may also directly participate in contract stakeholder engagements, as the Purchaser and/or Project Manager may reasonably request.  9.14 Forced Labor  The Supplier, including its Subcontractors, shall not employ or engage forced labour. Forced labour consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour-contracting arrangements.  No persons shall be employed or engaged who have been subject to trafficking. Trafficking in persons is defined as the recruitment, transportation, transfer, harbouring or receipt of persons by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purposes of exploitation.  9.15 Child Labor  The Supplier, including its Subcontractors, shall not employ or engage a child under the age of 14 unless the national law specifies a higher age (the minimum age).  The Supplier, including its Subcontractors, shall not employ or engage a child between the minimum age and the age of 18 in a manner that is likely to be hazardous, or to interfere with, the child’s education, or to be harmful to the child’s health or physical, mental, spiritual, moral, or social development.  The Supplier, including its Subcontractors, shall only employ or engage children between the minimum age and the age of 18 after an appropriate risk assessment has been conducted by the Supplier with the Project Manager’s consent. The Supplier shall be subject to regular monitoring by the Project Manager that includes monitoring of health, working conditions and hours of work.  Work considered hazardous for children is work that, by its nature or the circumstances in which it is carried out, is likely to jeopardize the health, safety, or morals of children. Such work activities prohibited for children include work:   1. with exposure to physical, psychological or sexual abuse; 2. underground, underwater, working at heights or in confined spaces; 3. with dangerous machinery, equipment or tools, or involving handling or transport of heavy loads; 4. in unhealthy environments exposing children to hazardous substances, agents, or processes, or to temperatures, noise or vibration damaging to health; or 5. under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.   9.16 Non-Discrimination and Equal Opportunity  The Supplier shall not make decisions relating to the employment or treatment of personnel for the execution of the Contract on the basis of personal characteristics unrelated to inherent job requirements. The Supplier shall base the employment of personnel for the execution of the Contract on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.  Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination. The Supplier shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, people with disabilities, migrant workers and children (of working age in accordance with GCC Clause 9.15).  9.17 Personnel Grievance Mechanism  The Supplier shall have a grievance mechanism for personnel employed in the execution of the Contract to raise workplace concerns. The grievance mechanism shall be proportionate to the nature, scale, risks and impacts of the Contract. The grievance mechanism may utilize existing grievance mechanisms, provided that they are properly designed and implemented, address concerns promptly, and are readily accessible to such personnel.  9.18 Security of the Project Site  **If stated in the SCC**, the Supplier shall be responsible for the security at the Project Site/s including providing and maintaining at its own expense all lighting, fencing, and watching when and where necessary for the proper execution and the protection of the locations, or for the safety of the owners and occupiers of adjacent property and for the safety of the public.  In making security arrangements, the Supplier shall be guided by applicable laws and any other requirements that may be stated in the Purchaser’s Requirements.  The Supplier shall (i) conduct appropriate background checks on any personnel retained to provide security; (ii) train the security personnel adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct towards the Supplier’s Personnel, Purchaser’s Personnel and affected communities; and (iii) require the security personnel to act within the applicable Laws and any requirements set out in the Purchaser’s Requirements.  The Supplier shall not permit any use of force by security personnel in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.  9.19 Recruitment of Persons  The Supplier shall not recruit, or attempt to recruit, either on limited time or `permanent basis or through any other contractual agreement, staff and labor from amongst the Purchaser’s Personnel. |
|  | 9.20 **Unless otherwise specified in the SCC** the Supplier shall have no other Supplier responsibilities. |
| 10. Purchaser’s Responsibilities | 10.1 The Purchaser shall ensure the accuracy of all information and/or data to be supplied by the Purchaser to the Supplier, except when otherwise expressly stated in the Contract. |
|  | 10.2 The Purchaser shall be responsible for timely provision of all resources, information, and decision making under its control that are necessary to reach an Agreed Project Plan (pursuant to GCC Clause 19.2) within the time schedule specified in the Implementation Schedule. Failure to provide such resources, information, and decision making may constitute grounds for Termination pursuant to GCC Clause 41.3.1 (b).  10.3 The Purchaser shall be responsible for acquiring and providing legal and physical possession of the site and access to it, and for providing possession of and access to all other areas reasonably required for the proper execution of the Contract.  10.4 If requested by the Supplier, the Purchaser shall use its best endeavors to assist the Supplier in obtaining in a timely and expeditious manner all permits, approvals, and/or licenses necessary for the execution of the Contract from all local, state, or national government authorities or public service undertakings that such authorities or undertakings require the Supplier or Subcontractors or the Supplier’s Personnel, as the case may be, to obtain.  10.5 In such cases where the responsibilities of specifying and acquiring or upgrading telecommunications and/or electric power services falls to the Supplier, as specified in the Technical Requirements, SCC, Agreed Project Plan, or other parts of the Contract, the Purchaser shall use its best endeavors to assist the Supplier in obtaining such services in a timely and expeditious manner.  10.6 The Purchaser shall be responsible for timely provision of all resources, access, and information necessary for the Installation and Operational Acceptance of the System (including, but not limited to, any required telecommunications or electric power services), as identified in the Agreed Project Plan, except where provision of such items is explicitly identified in the Contract as being the responsibility of the Supplier. Delay by the Purchaser may result in an appropriate extension of the Time for Operational Acceptance, at the Supplier’s discretion.  10.7 Unless otherwise specified in the Contract or agreed upon by the Purchaser and the Supplier, the Purchaser shall provide sufficient, properly qualified operating and technical personnel, as required by the Supplier to properly carry out Delivery, Pre-commissioning, Installation, Commissioning, and Operational Acceptance, at or before the time specified in the Implementation Schedule and the Agreed Project Plan.  10.8 The Purchaser will designate appropriate staff for the training courses to be given by the Supplier and shall make all appropriate logistical arrangements for such training as specified in the Technical Requirements, SCC, the Agreed Project Plan, or other parts of the Contract.  10.9 The Purchaser assumes primary responsibility for the Operational Acceptance Test(s) for the System, in accordance with GCC Clause 27.2, and shall be responsible for the continued operation of the System after Operational Acceptance. However, this shall not limit in any way the Supplier’s responsibilities after the date of Operational Acceptance otherwise specified in the Contract.  10.10 The Purchaser is responsible for performing and safely storing timely and regular backups of its data and Software in accordance with accepted data management principles, except where such responsibility is clearly assigned to the Supplier elsewhere in the Contract.  10.11 All costs and expenses involved in the performance of the obligations under this GCC Clause 10 shall be the responsibility of the Purchaser, save those to be incurred by the Supplier with respect to the performance of the Operational Acceptance Test(s), in accordance with GCC Clause 27.2.  10.12 **Unless otherwise specified in the SCC** the Purchaser shall have no other Purchaser responsibilities. |

C. Payment

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| 11. Contract Price | 11.1 The Contract Price shall be as specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement. |
|  | 11.2 Unless an adjustment clause is **provided for in the SCC,** the Contract Price shall be a firm lump sum not subject to any alteration, except in the event of a Change in the System pursuant to GCC Clause 39 or to other clauses in the Contract; |
|  | 11.3 The Supplier shall be deemed to have satisfied itself as to the correctness and sufficiency of the Contract Price, which shall, except as otherwise provided for in the Contract, cover all its obligations under the Contract. |
| 12. Terms of Payment | 12.1 The Supplier’s request for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, the System or Subsystem(s), Delivered, Pre-commissioned, Installed, and Operationally Accepted, and by documents submitted pursuant to GCC Clause 22.5 and upon fulfillment of other obligations stipulated in the Contract.  The Contract Price shall be paid as **specified in the SCC.** |
|  | 12.2 No payment made by the Purchaser herein shall be deemed to constitute acceptance by the Purchaser of the System or any Subsystem(s).  12.3 Payments shall be made promptly by the Purchaser, but in no case later than forty five (45) days after submission of a valid invoice by the Supplier. In the event that the Purchaser fails to make any payment by its respective due date or within the period set forth in the Contract, the Purchaser shall pay to the Supplier interest on the amount of such delayed payment at the rate(s) **specified in the SCC** for the period of delay until payment has been made in full, whether before or after judgment or arbitration award.  12.4 Payments shall be made in the currency(ies) specified in the Contract Agreement, pursuant to GCC Clause 11. For Goods and Services supplied locally, payments shall be made **as specified in the SCC.**  12.5 **Unless otherwise specified in the SCC,** payment of the foreign currency portion of the Contract Price for Goods supplied from outside the Purchaser’s Country shall be made to the Supplier through an irrevocable letter of credit opened by an authorized bank in the Supplier’s Country and will be payable on presentation of the appropriate documents. It is agreed that the letter of credit will be subject to Article 10 of the latest revision of *Uniform Customs and Practice for Documentary Credits*, published by the International Chamber of Commerce, Paris. |
| 13. Securities | 13.1 Issuance of Securities  The Supplier shall provide the securities specified below in favor of the Purchaser at the times and in the amount, manner, and form specified below. |
|  | 13.2 Advance Payment Security  13.2.1 The Supplier shall provide within twenty-eight (28) days of the notification of Contract award an Advance Payment Security in the amount and currency of the Advance Payment specified in SCC for GCC Clause 12.1 above and valid until the System is Operationally Accepted.  13.2.2 The security shall be in the form provided in the bidding documents or in another form acceptable to the Purchaser. The amount of the security shall be reduced in proportion to the value of the System executed by and paid to the Supplier from time to time and shall automatically become null and void when the full amount of the advance payment has been recovered by the Purchaser. **Unless otherwise specified in the SCC,** the reduction in value and expiration of the Advance Payment Security are calculated as follows:  P\*a/(100-a), where “P” is the sum of all payments effected so far to the Supplier (excluding the Advance Payment), and “a” is the Advance Payment expressed as a percentage of the Contract Price pursuant to the SCC for GCC Clause 12.1.  The security shall be returned to the Supplier immediately after its expiration. |
|  | 13.3 Performance Security  13.3.1 The Supplier shall, within twenty-eight (28) days of the notification of Contract award, provide a security for the due performance of the Contract in the amount and currency **specified in the SCC.**  13.3.2 The security shall be a bank guarantee in the form provided in the Sample Contractual Forms Section of the bidding documents, or it shall be in another form acceptable to the Purchaser.  13.3.3 The security shall automatically become null and void once all the obligations of the Supplier under the Contract have been fulfilled, including, but not limited to, any obligations during the Warranty Period and any extensions to the period. The security shall be returned to the Supplier no later than twenty-eight (28) days after its expiration.  13.3.4 Upon Operational Acceptance of the entire System, the security shall be reduced to the amount **specified in the SCC,** on the date of the Operational Acceptance, so that the reduced security would only cover the remaining warranty obligations of the Supplier. |
| 14. Taxes and Duties | 14.1 For Goods or Services supplied from outside the Purchaser’s country, the Supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the Purchaser’s country. Any duties, such as importation or customs duties, and taxes and other levies, payable in the Purchaser’s country for the supply of Goods and Services from outside the Purchaser’s country are the responsibility of the Purchaser unless these duties or taxes have been made part of the Contract Price in Article 2 of the Contract Agreement and the Price Schedule it refers to, in which case the duties and taxes will be the Supplier’s responsibility. |
|  | 14.2 For Goods or Services supplied locally, the Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods or Services to the Purchaser. The only exception are taxes or duties, such as value-added or sales tax or stamp duty as apply to, or are clearly identifiable, on the invoices and provided they apply in the Purchaser’s country, and only if these taxes, levies and/or duties are also excluded from the Contract Price in Article 2 of the Contract Agreement and the Price Schedule it refers to.  14.3 If any tax exemptions, reductions, allowances, or privileges may be available to the Supplier in the Purchaser’s Country, the Purchaser shall use its best efforts to enable the Supplier to benefit from any such tax savings to the maximum allowable extent.  14.4 For the purpose of the Contract, it is agreed that the Contract Price specified in Article 2 (Contract Price and Terms of Payment) of the Contract Agreement is based on the taxes, duties, levies, and charges prevailing at the date twenty-eight (28) days prior to the date of bid submission in the Purchaser’s Country (also called “Tax” in this GCC Clause 14.4). If any Tax rates are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of the Contract, which was or will be assessed on the Supplier, its Subcontractors, or their employees in connection with performance of the Contract, an equitable adjustment to the Contract Price shall be made to fully take into account any such change by addition to or reduction from the Contract Price, as the case may be. |

D. Intellectual Property

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| 15. Copyright | 15.1 The Intellectual Property Rights in all Standard Software and Standard Materials shall remain vested in the owner of such rights. |
|  | 15.2 The Purchaser agrees to restrict use, copying, or duplication of the Standard Software and Standard Materials in accordance with GCC Clause 16, except that additional copies of Standard Materials may be made by the Purchaser for use within the scope of the project of which the System is a part, in the event that the Supplier does not deliver copies within thirty (30) days from receipt of a request for such Standard Materials.  15.3 The Purchaser’s contractual rights to use the Standard Software or elements of the Standard Software may not be assigned, licensed, or otherwise transferred voluntarily except in accordance with the relevant license agreement or **unless otherwise specified in the SCC** to a legally constituted successor organization (e.g., a reorganization of a public entity formally authorized by the government or through a merger or acquisition of a private entity)**.**  15.4 **Unless otherwise specified in the SCC,** the Intellectual Property Rights in all Custom Software and Custom Materials specified in Appendices 4 and 5 of the Contract Agreement (if any) shall, at the date of this Contract or on creation of the rights (if later than the date of this Contract), vest in the Purchaser. The Supplier shall do and execute or arrange for the doing and executing of each necessary act, document, and thing (as legally sufficient) that the Purchaser may consider necessary or desirable to perfect the right, title, and interest of the Purchaser in and to those rights. In respect of such Custom Software and Custom Materials, the Supplier shall ensure that the holder of a moral right in such an item does not assert it, and the Supplier shall, if requested to do so by the Purchaser and where permitted by applicable law, ensure that the holder of such a moral right waives it. |
|  | 15.5 **Unless otherwise specified in the SCC**, escrow arrangements shall NOT be required. |
| 16. Software License Agreements | 16.1 Except to the extent that the Intellectual Property Rights in the Software vest in the Purchaser, the Supplier hereby grants to the Purchaser license to access and use the Software, including all inventions, designs, and marks embodied in the Software. |
|  | Such license to access and use the Software shall:  (a) be:  (i) nonexclusive;  (ii) fully paid up and irrevocable (except that it shall terminate if the Contract terminates under GCC Clauses 41.1 or 41.3);  (iii) **unless otherwise specified in the SCC** valid throughout the territory of the Purchaser’s Country;  (iv) **unless otherwise specified in the SCC** subject to NO additional restrictions.  (b) permit the Software to be:  (i) used or copied for use on or with the computer(s) for which it was acquired (if specified in the Technical Requirements and/or the Supplier’s bid), plus a backup computer(s) of the same or similar capacity, if the primary is(are) inoperative, and during a reasonable transitional period when use is being transferred between primary and backup;  (ii) used or copied for use on or transferred to a replacement computer(s), (and use on the original and replacement computer(s) may be simultaneous during a reasonable transitional period) provided that, if the Technical Requirements and/or the Supplier’s bid specifies a class of computer to which the license is restricted, the replacement computer(s) is(are) within that class;  (iii) if the nature of the System is such as to permit such access, accessed from other computers connected to the primary and/or backup computer(s) by means of a local or wide-area network or similar arrangement, and used on or copied for use on those other computers to the extent necessary to that access;  (iv) reproduced for safekeeping or backup purposes;  (v) customized, adapted, or combined with other computer software for use by the Purchaser, provided that derivative software incorporating any substantial part of the delivered, restricted Software shall be subject to same restrictions as are set forth in this Contract;  (vi) **unless otherwise specified in the SCC,** disclosed to, and reproduced for use by, support service suppliers and their subcontractors, to the extent reasonably necessary to the performance of their support service contracts, subject to the same restrictions as are set forth in this Contract; and  (vii) **unless otherwise specified in the SCC** disclosed to, and reproduced for use by, NO other parties. |
|  | 16.2 The Supplier has the right to audit the Standard Software to verify compliance with the above license agreements. **Unless otherwise specified in the SCC**, the Purchaser will make available to the Supplier, within seven (7) days of a written request, accurate and up-to-date records of the number and location of copies, the number of authorized users, or any other relevant data required to demonstrate use of the Standard Software as per the license agreement. If and only if, expressly agreed in writing between the Purchaser and the Supplier, Purchaser will allow, under a pre-specified agreed procedure, the execution of embedded software functions under Supplier’s control, and unencumbered transmission of resulting information on software usage. |
| 17. Confidential Information | 17.1 **Unless otherwise specified in the SCC,** the "Receiving Party" (either the Purchaser or the Supplier) shall keep confidential and shall not, without the written consent of the other party to this Contract (“the Disclosing Party”), divulge to any third party any documents, data, or other information of a confidential nature (“Confidential Information”) connected with this Contract, and furnished directly or indirectly by the Disclosing Party prior to or during performance, or following termination, of this Contract. |
|  | 17.2 For the purposes of GCC Clause 17.1, the Supplier is also deemed to be the Receiving Party of Confidential Information generated by the Supplier itself in the course of the performance of its obligations under the Contract and relating to the businesses, finances, suppliers, employees, or other contacts of the Purchaser or the Purchaser’s use of the System.  17.3 Notwithstanding GCC Clauses 17.1 and 17.2:  (a) the Supplier may furnish to its Subcontractor Confidential Information of the Purchaser to the extent reasonably required for the Subcontractor to perform its work under the Contract; and  (b) the Purchaser may furnish Confidential Information of the Supplier: (i) to its support service suppliers and their subcontractors to the extent reasonably required for them to perform their work under their support service contracts; and (ii) to its affiliates and subsidiaries,  in which event the Receiving Party shall ensure that the person to whom it furnishes Confidential Information of the Disclosing Party is aware of and abides by the Receiving Party’s obligations under this GCC Clause 17 as if that person were party to the Contract in place of the Receiving Party. |
|  | 17.4 The Purchaser shall not, without the Supplier’s prior written consent, use any Confidential Information received from the Supplier for any purpose other than the operation, maintenance and further development of the System. Similarly, the Supplier shall not, without the Purchaser’s prior written consent, use any Confidential Information received from the Purchaser for any purpose other than those that are required for the performance of the Contract.  17.5 The obligation of a party under GCC Clauses 17.1 through 17.4 above, however, shall not apply to that information which:  (a) now or hereafter enters the public domain through no fault of the Receiving Party;  (b) can be proven to have been possessed by the Receiving Party at the time of disclosure and that was not previously obtained, directly or indirectly, from the Disclosing Party;  (c) otherwise lawfully becomes available to the Receiving Party from a third party that has no obligation of confidentiality;  (d) is being provided to the Bank.  17.6 The above provisions of this GCC Clause 17 shall not in any way modify any undertaking of confidentiality given by either of the parties to this Contract prior to the date of the Contract in respect of the System or any part thereof.  17.7 **Unless otherwise specified in the SCC**, the provisions of this GCC Clause 17 shall survive the termination, for whatever reason, of the Contract for three (3) years. |

E. Supply, Installation, Testing,  
Commissioning, and Acceptance of the System

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| 18. Representatives | 18.1 Project Manager  If the Project Manager is not named in the Contract, then within fourteen (14) days of the Effective Date, the Purchaser shall appoint and notify the Supplier in writing of the name of the Project Manager. The Purchaser may from time to time appoint some other person as the Project Manager in place of the person previously so appointed and shall give a notice of the name of such other person to the Supplier without delay. No such appointment shall be made at such a time or in such a manner as to impede the progress of work on the System. Such appointment shall take effect only upon receipt of such notice by the Supplier. **Unless otherwise specified in the SCC** (if any), the Project Manager shall have the authority to represent the Purchaser on all day-to-day matters relating to the System or arising from the Contract, and shall normally be the person giving or receiving notices on behalf of the Purchaser pursuant to GCC Clause 4. |
|  | 18.2 Supplier’s Representative  18.2.1 If the Supplier’s Representative is not named in the Contract, then within fourteen (14) days of the Effective Date, the Supplier shall appoint the Supplier’s Representative and shall request the Purchaser in writing to approve the person so appointed. The request must be accompanied by a detailed curriculum vitae for the nominee, as well as a description of any other System or non-System responsibilities the nominee would retain while performing the duties of the Supplier’s Representative. If the Purchaser does not object to the appointment within fourteen (14) days, the Supplier’s Representative shall be deemed to have been approved. If the Purchaser objects to the appointment within fourteen (14) days giving the reason therefor, then the Supplier shall appoint a replacement within fourteen (14) days of such objection in accordance with this GCC Clause 18.2.1.  18.2.2 **Unless otherwise specified in the SCC** (if any), the Supplier’s Representative shall have the authority to represent the Supplier on all day-to-day matters relating to the System or arising from the Contract, and shall normally be the person giving or receiving notices on behalf of the Supplier pursuant to GCC Clause 4.  18.2.3 The Supplier shall not revoke the appointment of the Supplier’s Representative without the Purchaser’s prior written consent, which shall not be unreasonably withheld. If the Purchaser consents to such an action, the Supplier shall appoint another person of equal or superior qualifications as the Supplier’s Representative, pursuant to the procedure set out in GCC Clause 18.2.1.  18.2.4 The Supplier’s Representative and staff are obliged to work closely with the Purchaser’s Project Manager and staff, act within their own authority, and abide by directives issued by the Purchaser that are consistent with the terms of the Contract. The Supplier’s Representative is responsible for managing the activities of the Supplier’s Personnel.  18.2.5 The Supplier’s Representative may, subject to the approval of the Purchaser (which shall not be unreasonably withheld), at any time delegate to any person any of the powers, functions, and authorities vested in him or her. Any such delegation may be revoked at any time. Any such delegation or revocation shall be subject to a prior notice signed by the Supplier’s Representative and shall specify the powers, functions, and authorities thereby delegated or revoked. No such delegation or revocation shall take effect unless and until the notice of it has been delivered.  18.2.6 Any act or exercise by any person of powers, functions and authorities so delegated to him or her in accordance with GCC Clause 18.2.5 shall be deemed to be an act or exercise by the Supplier’s Representative.  18.3 Removal of Supplier’s Personnel  18.3.1 The Project Manager may require the Supplier to remove (or cause to be removed) the Supplier’s Representative or any other person employed by the Supplier in the execution of the Contract, who:   1. persists in any misconduct or lack of care; 2. carries out duties incompetently or negligently; 3. fails to comply with any provision of the Contract; 4. persists in any conduct which is prejudicial to safety, health, or the protection of the environment; 5. based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Contract; 6. has been recruited from the Purchaser’s Personnel; 7. engages in any other behaviour which breaches the Code of Conduct, as applicable;   If appropriate, the Supplier shall then promptly appoint (or cause to be appointed) a suitable replacement with equivalent skills and experience.  Notwithstanding any requirement from the Project Manager to remove or cause to remove any person, the Supplier shall take immediate action as appropriate in response to any violation of (a) through (g) above. Such immediate action shall include removing (or causing to be removed) from work on the System, any person Employed by the Supplier in the execution of the Contract who engages in (a), (b), (c), (d), (e) or (g) above or has been recruited as stated in (f) above.  18.3.2 If any representative or person employed by the Supplier is removed in accordance with GCC Clause 18.3.1, the Supplier shall, where required, promptly appoint a suitable replacement with equivalent skills and experience. |
| 19. Project Plan | 19.1 In close cooperation with the Purchaser and based on the Preliminary Project Plan included in the Supplier’s bid, the Supplier shall develop a Project Plan encompassing the activities specified in the Contract. The contents of the Project Plan shall be as **specified in the SCC** and/or Technical Requirements. |
|  | 19.2 **Unless otherwise specified in the SCC**, within thirty (30) days from the Effective Date of the Contract, the Supplier shall present a Project Plan to the Purchaser. Such submission to the Purchaser shall include any applicable environmental and social management plan to manage environmental and social risks and impacts. The Purchaser shall, within fourteen (14)days of receipt of the Project Plan, notify the Supplier of any respects in which it considers that the Project Plan does not adequately ensure that the proposed program of work, proposed methods, and/or proposed Information Technologies will satisfy the Technical Requirements and/or the SCC (in this Clause 19.2 called “non-conformities” below). The Supplier shall, within five (5) days of receipt of such notification, correct the Project Plan and resubmit to the Purchaser. The Purchaser shall, within five (5) days of resubmission of the Project Plan, notify the Supplier of any remaining non-conformities. This procedure shall be repeated as necessary until the Project Plan is free from non-conformities. When the Project Plan is free from non-conformities, the Purchaser shall provide confirmation in writing to the Supplier. This approved Project Plan (“the Agreed Project Plan”) shall be contractually binding on the Purchaser and the Supplier.  19.3 If required, the impact on the Implementation Schedule of modifications agreed during finalization of the Agreed Project Plan shall be incorporated in the Contract by amendment, in accordance with GCC Clauses 39 and 40.  19.4 The Supplier shall undertake to supply, install, test, and commission the System in accordance with the Agreed Project Plan and the Contract.  19.5 **Unless otherwise specified in the SCC**, the Supplier shall submit to the Purchaser Monthly Progress Reports summarizing:  (i) results accomplished during the prior period;  (ii) cumulative deviations to date from schedule of progress milestones as specified in the Agreed Project Plan;  (iii) corrective actions to be taken to return to planned schedule of progress; proposed revisions to planned schedule;  (iv) other issues and outstanding problems; proposed actions to be taken;  (v) resources that the Supplier expects to be provided by the Purchaser and/or actions to be taken by the Purchaser in the next reporting period;  (vi) status of compliance to environmental and social requirements, as applicable;  (vii) other issues or potential problems the Supplier foresees that could impact on project progress and/or effectiveness.  19.6 The Supplier shall submit to the Purchaser other (periodic) reports as specified in the SCC.  19.7 Immediate Reporting requirement  The Supplier shall inform the Project Manager immediately of any allegation, incident or accident in Project Site/s, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Purchaser’s Personnel or Supplier’s Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.  The Supplier, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Purchaser of any such incident or accident on the Subcontractors’ or suppliers’ premises relating to the Contract which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Purchaser’s Personnel or Supplier’s Personnel. The notification shall provide sufficient detail regarding such incidents or accidents.  The Supplier shall provide full details of such incidents or accidents to the Project Manager within the timeframe agreed with the Purchaser.  The Purchaser shall require its Subcontractors to immediately notify it of any incidents or accidents referred to in this Sub- Clause. |
| 20. Subcontracting | 20.1 Appendix 3 (List of Approved Subcontractors) to the Contract Agreement specifies critical items of supply or services and a list of Subcontractors for each item that are considered acceptable by the Purchaser. If no Subcontractors are listed for an item, the Supplier shall prepare a list of Subcontractors it considers qualified and wishes to be added to the list for such items. The Supplier may from time to time propose additions to or deletions from any such list. The Supplier shall submit any such list or any modification to the list to the Purchaser for its approval in sufficient time so as not to impede the progress of work on the System. Submision by the Supplier, for addition of any Subcontractor not named in the Contract, shall also include the Subcontractor’s declaration in accordance with Appendix 2 to the GCC- Sexual exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration. Approval by the Purchaser of a Subcontractor(s) shall not relieve the Supplier from any of its obligations, duties, or responsibilities under the Contract. |
|  | 20.2 The Supplier may, at its discretion, select and employ Subcontractors for such critical items from those Subcontractors listed pursuant to GCC Clause 20.1. If the Supplier wishes to employ a Subcontractor not so listed, or subcontract an item not so listed, it must seek the Purchaser’s prior approval under GCC Clause 20.3.  20.3 For items for which pre-approved Subcontractor lists have not been specified in Appendix 3 to the Contract Agreement, the Supplier may employ such Subcontractors as it may select, provided: (i) the Supplier notifies the Purchaser in writing at least twenty-eight (28) days prior to the proposed mobilization date for such Subcontractor, including by providing the Subcontractor’s declaration in accordance with Appendix 2 to the GCC- Sexual exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration; and (ii) by the end of this period either the Purchaser has granted its approval in writing or fails to respond. The Supplier shall not engage any Subcontractor to which the Purchaser has objected in writing prior to the end of the notice period. The absence of a written objection by the Purchaser during the above specified period shall constitute formal acceptance of the proposed Subcontractor. Except to the extent that it permits the deemed approval of the Purchaser of Subcontractors not listed in the Contract Agreement, nothing in this Clause, however, shall limit the rights and obligations of either the Purchaser or Supplier as they are specified in GCC Clauses 20.1 and 20.2, or in Appendix 3 of the Contract Agreement.  20.4 The Supplier shall ensure that its Subcontractors comply with the relevant ES requirements and the obligations set out in GCC Clause 9.9. |
| 21. Design and Engineering | 21.1 Technical Specifications and Drawings  21.1.1 The Supplier shall execute the basic and detailed design and the implementation activities necessary for successful installation of the System in compliance with the provisions of the Contract or, where not so specified, in accordance with good industry practice. |
|  | The Supplier shall be responsible for any discrepancies, errors or omissions in the specifications, drawings, and other technical documents that it has prepared, whether such specifications, drawings, and other documents have been approved by the Project Manager or not, provided that such discrepancies, errors, or omissions are not because of inaccurate information furnished in writing to the Supplier by or on behalf of the Purchaser.  21.1.2 The Supplier shall be entitled to disclaim responsibility for any design, data, drawing, specification, or other document, or any modification of such design, drawings, specification, or other documents provided or designated by or on behalf of the Purchaser, by giving a notice of such disclaimer to the Project Manager.  21.2 Codes and Standards  Wherever references are made in the Contract to codes and standards in accordance with which the Contract shall be executed, the edition or the revised version of such codes and standards current at the date twenty-eight (28) days prior to date of bid submission shall apply. During Contract execution, any changes in such codes and standards shall be applied after approval by the Purchaser and shall be treated in accordance with GCC Clause 39.3.  21.3 Approval/Review of Controlling Technical Documents by the Project Manager  21.3.1 **Unless otherwise specified in the SCC**, there will NO Controlling Technical Documents required. However, **if the SCC specifies** Controlling Technical Documents, the Supplier shall prepare and furnish such documents for the Project Manager’s approval or review.  Any part of the System covered by or related to the documents to be approved by the Project Manager shall be executed only after the Project Manager’s approval of these documents.  GCC Clauses 21.3.2 through 21.3.7 shall apply to those documents requiring the Project Manager’s approval, but not to those furnished to the Project Manager for its review only.  21.3.2 Within fourteen (14) days after receipt by the Project Manager of any document requiring the Project Manager’s approval in accordance with GCC Clause 21.3.1, the Project Manager shall either return one copy of the document to the Supplier with its approval endorsed on the document or shall notify the Supplier in writing of its disapproval of the document and the reasons for disapproval and the modifications that the Project Manager proposes. If the Project Manager fails to take such action within the fourteen (14) days, then the document shall be deemed to have been approved by the Project Manager.  21.3.3 The Project Manager shall not disapprove any document except on the grounds that the document does not comply with some specified provision of the Contract or that it is contrary to good industry practice.  21.3.4 If the Project Manager disapproves the document, the Supplier shall modify the document and resubmit it for the Project Manager’s approval in accordance with GCC Clause 21.3.2. If the Project Manager approves the document subject to modification(s), the Supplier shall make the required modification(s), and the document shall then be deemed to have been approved, subject to GCC Clause 21.3.5. The procedure set out in GCC Clauses 21.3.2 through 21.3.4 shall be repeated, as appropriate, until the Project Manager approves such documents.  21.3.5 If any dispute occurs between the Purchaser and the Supplier in connection with or arising out of the disapproval by the Project Manager of any document and/or any modification(s) to a document that cannot be settled between the parties within a reasonable period, then, in case the Contract Agreement includes and names an Adjudicator, such dispute may be referred to the Adjudicator for determination in accordance with GCC Clause 43.1 (Adjudication). If such dispute is referred to an Adjudicator, the Project Manager shall give instructions as to whether and if so, how, performance of the Contract is to proceed. The Supplier shall proceed with the Contract in accordance with the Project Manager’s instructions, provided that if the Adjudicator upholds the Supplier’s view on the dispute and if the Purchaser has not given notice under GCC Clause 43.1.2, then the Supplier shall be reimbursed by the Purchaser for any additional costs incurred by reason of such instructions and shall be relieved of such responsibility or liability in connection with the dispute and the execution of the instructions as the Adjudicator shall decide, and the Time for Achieving Operational Acceptance shall be extended accordingly.  21.3.6 The Project Manager’s approval, with or without modification of the document furnished by the Supplier, shall not relieve the Supplier of any responsibility or liability imposed upon it by any provisions of the Contract except to the extent that any subsequent failure results from modifications required by the Project Manager or inaccurate information furnished in writing to the Supplier by or on behalf of the Purchaser.  21.3.7 The Supplier shall not depart from any approved document unless the Supplier has first submitted to the Project Manager an amended document and obtained the Project Manager’s approval of the document, pursuant to the provisions of this GCC Clause 21.3. If the Project Manager requests any change in any already approved document and/or in any document based on such an approved document, the provisions of GCC Clause 39 (Changes to the System) shall apply to such request. |
| 22. Procurement, Delivery, and Transport | 22.1 Subject to related Purchaser's responsibilities pursuant to GCC Clauses 10 and 14, the Supplier shall manufacture or procure and transport all the Information Technologies, Materials, and other Goods in an expeditious and orderly manner to the Project Site. |
|  | 22.2 Delivery of the Information Technologies, Materials, and other Goods shall be made by the Supplier in accordance with the Technical Requirements.  22.3 Early or partial deliveries require the explicit written consent of the Purchaser, which consent shall not be unreasonably withheld.  22.4 Transportation  22.4.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during shipment. The packing, marking, and documentation within and outside the packages shall comply strictly with the Purchaser’s instructions to the Supplier.   * + 1. The Supplier will bear responsibility for and cost of transport to the Project Sites in accordance with the terms and conditions used in the specification of prices in the Price Schedules, including the terms and conditions of the associated Incoterms.     2. **Unless otherwise specified in the SCC,** the Supplier shall be free to use transportation through carriers registered in any eligible country and to obtain insurance from any eligible source country.   22.5 **Unless otherwise specified in the SCC,** the Supplier will provide the Purchaser with shipping and other documents, as specified below:  22.5.1 For Goods supplied from outside the Purchaser’s Country:  Upon shipment, the Supplier shall notify the Purchaser and the insurance company contracted by the Supplier to provide cargo insurance by cable, facsimile, electronic mail, or EDI with the full details of the shipment. The Supplier shall promptly send the following documents to the Purchaser by mail or courier, as appropriate, with a copy to the cargo insurance company:  (a) two copies of the Supplier’s invoice showing the description of the Goods, quantity, unit price, and total amount;  (b) usual transportation documents;  (c) insurance certificate;  (d) certificate(s) of origin; and  (e) estimated time and point of arrival in the Purchaser’s Country and at the site.  22.5.2 For Goods supplied locally (i.e., from within the Purchaser’s country):  Upon shipment, the Supplier shall notify the Purchaser by cable, facsimile, electronic mail, or EDI with the full details of the shipment. The Supplier shall promptly send the following documents to the Purchaser by mail or courier, as appropriate:  (a) two copies of the Supplier’s invoice showing the Goods’ description, quantity, unit price, and total amount;  (b) delivery note, railway receipt, or truck receipt;  (c) certificate of insurance;  (d) certificate(s) of origin; and  (e) estimated time of arrival at the site.  22.6 Customs Clearance  (a) The Purchaser will bear responsibility for, and cost of, customs clearance into the Purchaser's country in accordance the particular Incoterm(s) used for Goods supplied from outside the Purchaser’s country in the Price Schedules referred to by Article 2 of the Contract Agreement.  (b) At the request of the Purchaser, the Supplier will make available a representative or agent during the process of customs clearance in the Purchaser's country for goods supplied from outside the Purchaser's country. In the event of delays in customs clearance that are not the fault of the Supplier:  (i) the Supplier shall be entitled to an extension in the Time for Achieving Operational Acceptance, pursuant to GCC Clause 40;  (ii) the Contract Price shall be adjusted to compensate the Supplier for any additional storage charges that the Supplier may incur as a result of the delay. |
| 23. Product Upgrades | 23.1 At any point during performance of the Contract, should technological advances be introduced by the Supplier for Information Technologies originally offered by the Supplier in its bid and still to be delivered, the Supplier shall be obligated to offer to the Purchaser the latest versions of the available Information Technologies having equal or better performance or functionality at the same or lesser unit prices, pursuant to GCC Clause 39 (Changes to the System). |
|  | 23.2 At any point during performance of the Contract, for Information Technologies still to be delivered, the Supplier will also pass on to the Purchaser any cost reductions and additional and/or improved support and facilities that it offers to other clients of the Supplier in the Purchaser’s Country, pursuant to GCC Clause 39 (Changes to the System).  23.3 During performance of the Contract, the Supplier shall offer to the Purchaser all new versions, releases, and updates of Standard Software, as well as related documentation and technical support services, within thirty (30) days of their availability from the Supplier to other clients of the Supplier in the Purchaser’s Country, and no later than twelve (12) months after they are released in the country of origin. In no case will the prices for these Software exceed those quoted by the Supplier in the Recurrent Costs tables in its bid.  23.4 **Unless otherwise specified in the SCC,** during the Warranty Period, the Supplier will provide at no additional cost to the Purchaser all new versions, releases, and updates for all Standard Software that are used in the System, within thirty (30) days of their availability from the Supplier to other clients of the Supplier in the Purchaser’s country, and no later than twelve (12) months after they are released in the country of origin of the Software.  23.5 The Purchaser shall introduce all new versions, releases or updates of the Software within eighteen (18) months of receipt of a production-ready copy of the new version, release, or update, provided that the new version, release, or update does not adversely affect System operation or performance or require extensive reworking of the System. In cases where the new version, release, or update adversely affects System operation or performance, or requires extensive reworking of the System, the Supplier shall continue to support and maintain the version or release previously in operation for as long as necessary to allow introduction of the new version, release, or update. In no case shall the Supplier stop supporting or maintaining a version or release of the Software less than twenty four (24) months after the Purchaser receives a production-ready copy of a subsequent version, release, or update. The Purchaser shall use all reasonable endeavors to implement any new version, release, or update as soon as practicable, subject to the twenty-four-month-long stop date. |
| 24. Implementation, Installation, and Other Services | 24.1 The Supplier shall provide all Services specified in the Contract and Agreed Project Plan in accordance with the highest standards of professional competence and integrity. |
|  | 24.2 Prices charged by the Supplier for Services, if not included in the Contract, shall be agreed upon in advance by the parties (including, but not restricted to, any prices submitted by the Supplier in the Recurrent Cost Schedules of its Bid) and shall not exceed the prevailing rates charged by the Supplier to other purchasers in the Purchaser’s Country for similar services. |
| 25. Inspections and Tests | 25.1 The Purchaser or its representative shall have the right to inspect and/or test any components of the System, as specified in the Technical Requirements, to confirm their good working order and/or conformity to the Contract at the point of delivery and/or at the Project Site. |
|  | 25.2 The Purchaser or its representative shall be entitled to attend any such inspections and/or tests of the components, provided that the Purchaser shall bear all costs and expenses incurred in connection with such attendance, including but not limited to all inspection agent fees, travel, and related expenses.  25.3 Should the inspected or tested components fail to conform to the Contract, the Purchaser may reject the component(s), and the Supplier shall either replace the rejected component(s), or make alterations as necessary so that it meets the Contract requirements free of cost to the Purchaser.  25.4 The Project Manager may require the Supplier to carry out any inspection and/or test not specified in the Contract, provided that the Supplier’s reasonable costs and expenses incurred in the carrying out of such inspection and/or test shall be added to the Contract Price. Further, if such inspection and/or test impedes the progress of work on the System and/or the Supplier’s performance of its other obligations under the Contract, due allowance will be made in respect of the Time for Achieving Operational Acceptance and the other obligations so affected.  25.5 If any dispute shall arise between the parties in connection with or caused by an inspection and/or with regard to any component to be incorporated in the System that cannot be settled amicably between the parties within a reasonable period of time, either party may invoke the process pursuant to GCC Clause 43 (Settlement of Disputes), starting with referral of the matter to the Adjudicator in case an Adjudicator is included and named in the Contract Agreement. |
| 26. Installation of the System | 26.1 As soon as the System, or any Subsystem, has, in the opinion of the Supplier, been delivered, Pre-commissioned, and made ready for Commissioning and Operational Acceptance Testing in accordance with the Technical Requirements, the SCC and the Agreed Project Plan, the Supplier shall so notify the Purchaser in writing. |
|  | 26.2 The Project Manager shall, within fourteen (14) days after receipt of the Supplier’s notice under GCC Clause 26.1, either issue an Installation Certificate in the form specified in the Sample Contractual Forms Section in the bidding documents, stating that the System, or major component or Subsystem (if Acceptance by major component or Subsystem is specified pursuant to the SCC for GCC Clause 27.2.1), has achieved Installation by the date of the Supplier’s notice under GCC Clause 26.1, or notify the Supplier in writing of any defects and/or deficiencies, including, but not limited to, defects or deficiencies in the interoperability or integration of the various components and/or Subsystems making up the System. The Supplier shall use all reasonable endeavors to promptly remedy any defect and/or deficiencies that the Project Manager has notified the Supplier of. The Supplier shall then promptly carry out retesting of the System or Subsystem and, when in the Supplier’s opinion the System or Subsystem is ready for Commissioning and Operational Acceptance Testing, notify the Purchaser in writing, in accordance with GCC Clause 26.1. The procedure set out in this GCC Clause 26.2 shall be repeated, as necessary, until an Installation Certificate is issued.  26.3 If the Project Manager fails to issue the Installation Certificate and fails to inform the Supplier of any defects and/or deficiencies within fourteen (14) days after receipt of the Supplier’s notice under GCC Clause 26.1, or if the Purchaser puts the System or a Subsystem into production operation, then the System (or Subsystem) shall be deemed to have achieved successful Installation as of the date of the Supplier’s notice or repeated notice, or when the Purchaser put the System into production operation, as the case may be. |
| 27. Commissioning and Operational Acceptance | 27.1 Commissioning  27.1.1 Commissioning of the System (or Subsystem if specified pursuant to the SCC for GCC Clause 27.2.1) shall be commenced by the Supplier:  (a) immediately after the Installation Certificate is issued by the Project Manager, pursuant to GCC Clause 26.2; or  (b) as otherwise specified in the Technical Requirement or the Agreed Project Plan; or  (c) immediately after Installation is deemed to have occurred, under GCC Clause 26.3. |
|  | 27.1.2 The Purchaser shall supply the operating and technical personnel and all materials and information reasonably required to enable the Supplier to carry out its obligations with respect to Commissioning.  Production use of the System or Subsystem(s) shall not commence prior to the start of formal Operational Acceptance Testing.  27.2 Operational Acceptance Tests  27.2.1 The Operational Acceptance Tests (and repeats of such tests) shall be the primary responsibility of the Purchaser (in accordance with GCC Clause 10.9), but shall be conducted with the full cooperation of the Supplier during Commissioning of the System (or major components or Subsystem[s]), to ascertain whether the System (or major component or Subsystem[s]) conforms to the Technical Requirements and meets the standard of performance quoted in the Supplier’s bid, including, but not restricted to, the functional and technical performance requirements. **Unless otherwise specified in the SCC**, the Operational Acceptance Tests during Commissioning will be conducted as specified in the Technical Requirements and/or the Agreed Project Plan.  At the Purchaser’s discretion, Operational Acceptance Tests may also be performed on replacement Goods, upgrades and new version releases, and Goods that are added or field-modified after Operational Acceptance of the System.  27.2.2 If for reasons attributable to the Purchaser, the Operational Acceptance Test of the System (or Subsystem[s] or major components, pursuant to the SCC for GCC Clause 27.2.1) cannot be successfully completed within ninety (90) days from the date of Installation or any other period agreed upon in writing by the Purchaser and the Supplier, the Supplier shall be deemed to have fulfilled its obligations with respect to the technical and functional aspects of the Technical Specifications, SCC and/or the Agreed Project Plan, and GCC Clause 28.2 and 28.3 shall not apply.  27.3 Operational Acceptance  27.3.1 Subject to GCC Clause 27.4 (Partial Acceptance) below, Operational Acceptance shall occur in respect of the System, when  (a) the Operational Acceptance Tests, as specified in the Technical Requirements, and/or SCC and/or the Agreed Project Plan have been successfully completed; or  (b) the Operational Acceptance Tests have not been successfully completed or have not been carried out for reasons that are attributable to the Purchaser within the period from the date of Installation or any other agreed-upon period as specified in GCC Clause 27.2.2 above; or  (c) the Purchaser has put the System into production or use for sixty (60) consecutive days. If the System is put into production or use in this manner, the Supplier shall notify the Purchaser and document such use.  27.3.2 At any time after any of the events set out in GCC Clause 27.3.1 have occurred, the Supplier may give a notice to the Project Manager requesting the issue of an Operational Acceptance Certificate.  27.3.3 After consultation with the Purchaser, and within fourteen (14) days after receipt of the Supplier’s notice, the Project Manager shall:  (a) issue an Operational Acceptance Certificate; or  (b) notify the Supplier in writing of any defect or deficiencies or other reason for the failure of the Operational Acceptance Tests; or  (c) issue the Operational Acceptance Certificate, if the situation covered by GCC Clause 27.3.1 (b) arises.  27.3.4 The Supplier shall use all reasonable endeavors to promptly remedy any defect and/or deficiencies and/or other reasons for the failure of the Operational Acceptance Test that the Project Manager has notified the Supplier of. Once such remedies have been made by the Supplier, the Supplier shall notify the Purchaser, and the Purchaser, with the full cooperation of the Supplier, shall use all reasonable endeavors to promptly carry out retesting of the System or Subsystem. Upon the successful conclusion of the Operational Acceptance Tests, the Supplier shall notify the Purchaser of its request for Operational Acceptance Certification, in accordance with GCC Clause 27.3.3. The Purchaser shall then issue to the Supplier the Operational Acceptance Certification in accordance with GCC Clause 27.3.3 (a), or shall notify the Supplier of further defects, deficiencies, or other reasons for the failure of the Operational Acceptance Test. The procedure set out in this GCC Clause 27.3.4 shall be repeated, as necessary, until an Operational Acceptance Certificate is issued.  27.3.5 If the System or Subsystem fails to pass the Operational Acceptance Test(s) in accordance with GCC Clause 27.2, then either:  (a) the Purchaser may consider terminating the Contract, pursuant to GCC Clause 41.2.2;  or  (b) if the failure to achieve Operational Acceptance within the specified time period is a result of the failure of the Purchaser to fulfill its obligations under the Contract, then the Supplier shall be deemed to have fulfilled its obligations with respect to the relevant technical and functional aspects of the Contract, and GCC Clauses 30.3 and 30.4 shall not apply.  27.3.6 If within fourteen (14) days after receipt of the Supplier’s notice the Project Manager fails to issue the Operational Acceptance Certificate or fails to inform the Supplier in writing of the justifiable reasons why the Project Manager has not issued the Operational Acceptance Certificate, the System or Subsystem shall be deemed to have been accepted as of the date of the Supplier’s said notice.  27.4 Partial Acceptance  27.4.1 If so specified in the SCC for GCC Clause 27.2.1, Installation and Commissioning shall be carried out individually for each identified major component or Subsystem(s) of the System. In this event, the provisions in the Contract relating to Installation and Commissioning, including the Operational Acceptance Test, shall apply to each such major component or Subsystem individually, and Operational Acceptance Certificate(s) shall be issued accordingly for each such major component or Subsystem of the System, subject to the limitations contained in GCC Clause 27.4.2.  27.4.2 The issuance of Operational Acceptance Certificates for individual major components or Subsystems pursuant to GCC Clause 27.4.1 shall not relieve the Supplier of its obligation to obtain an Operational Acceptance Certificate for the System as an integrated whole (if so specified in the SCC for GCC Clauses 12.1 and 27.2.1) once all major components and Subsystems have been supplied, installed, tested, and commissioned.  27.4.3 In the case of minor components for the System that by their nature do not require Commissioning or an Operational Acceptance Test (e.g., minor fittings, furnishings or site works, etc.), the Project Manager shall issue an Operational Acceptance Certificate within fourteen (14) days after the fittings and/or furnishings have been delivered and/or installed or the site works have been completed. The Supplier shall, however, use all reasonable endeavors to promptly remedy any defects or deficiencies in such minor components detected by the Purchaser or Supplier. |

F. Guarantees and Liabilities

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| 28. Operational Acceptance Time Guarantee | 28.1 The Supplier guarantees that it shall complete the supply, Installation, Commissioning, and achieve Operational Acceptance of the System (or Subsystems, pursuant to the SCC for GCC Clause 27.2.1) within the time periods specified in the Implementation Schedule and/or the Agreed Project Plan pursuant to GCC Clause 8.2, or within such extended time to which the Supplier shall be entitled under GCC Clause 40 (Extension of Time for Achieving Operational Acceptance). |
|  | 28.2 **Unless otherwise specified in the SCC**, if the Supplier fails to supply, install, commission, and achieve Operational Acceptance of the System (or Subsystems pursuant to the SCC for GCC Clause 27.2.1) within the time for achieving Operational Acceptance specified in the Implementation Schedule or the Agreed Project Plan, or any extension of the time for achieving Operational Acceptance previously granted under GCC Clause 40 (Extension of Time for Achieving Operational Acceptance), the Supplier shall pay to the Purchaser liquidated damages at the rate of one half of one percent per week as a percentage of the Contract Price (exclusive of Recurrent Costs if any), or the relevant part of the Contract Price if a Subsystem has not achieved Operational Acceptance. The aggregate amount of such liquidated damages shall in no event exceed the amount of ten (10) percent of the Contract Price (exclusive of Recurrent Costs if any). Once the Maximum is reached, the Purchaser may consider termination of the Contract, pursuant to GCC Clause 41.2.2.  28.3 **Unless otherwise specified in the SCC,** liquidated damages payable under GCC Clause 28.2 shall apply only to the failure to achieve Operational Acceptance of the System (and Subsystems) as specified in the Implementation Schedule and/or Agreed Project Plan. This Clause 28.3 shall not limit, however, any other rights or remedies the Purchaser may have under the Contract for other delays.  28.4 If liquidated damages are claimed by the Purchaser for the System (or Subsystem), the Supplier shall have no further liability whatsoever to the Purchaser in respect to the Operational Acceptance time guarantee for the System (or Subsystem). However, the payment of liquidated damages shall not in any way relieve the Supplier from any of its obligations to complete the System or from any other of its obligations and liabilities under the Contract. |
| 29. Defect Liability | 29.1 The Supplier warrants that the System, including all Information Technologies, Materials, and other Goods supplied and Services provided, shall be free from defects in the design, engineering, Materials, and workmanship that prevent the System and/or any of its components from fulfilling the Technical Requirements or that limit in a material fashion the performance, reliability, or extensibility of the System and/or Subsystems. **Unless otherwise specified in the SCC**, there will be NO exceptions and/or limitations to this warranty with respect to Software (or categories of Software). Commercial warranty provisions of products supplied under the Contract shall apply to the extent that they do not conflict with the provisions of this Contract. |
|  | 29.2 The Supplier also warrants that the Information Technologies, Materials, and other Goods supplied under the Contract are new, unused, and incorporate all recent improvements in design that materially affect the System’s or Subsystem’s ability to fulfill the Technical Requirements.  29.3 **Unless otherwise specified in the SCC,** the Supplier warrants that: (i) all Goods components to be incorporated into the System form part of the Supplier’s and/or Subcontractor’s current product lines, and (ii) they have been previously released to the market.  29.4 **Unless otherwise specified in the SCC**, the Warranty Period shall commence from the date of Operational Acceptance of the System (or of any major component or Subsystem for which separate Operational Acceptance is provided for in the Contract) and shall extend for thirty-six (36) months.  29.5 If during the Warranty Period any defect as described in GCC Clause 29.1 should be found in the design, engineering, Materials, and workmanship of the Information Technologies and other Goods supplied or of the Services provided by the Supplier, the Supplier shall promptly, in consultation and agreement with the Purchaser regarding appropriate remedying of the defects, and at its sole cost, repair, replace, or otherwise make good (as the Supplier shall, at its discretion, determine) such defect as well as any damage to the System caused by such defect. Any defective Information Technologies or other Goods that have been replaced by the Supplier shall remain the property of the Supplier.  29.6 The Supplier shall not be responsible for the repair, replacement, or making good of any defect, or of any damage to the System arising out of or resulting from any of the following causes:  (a) improper operation or maintenance of the System by the Purchaser;  (b) normal wear and tear;  (c) use of the System with items not supplied by the Supplier, unless otherwise identified in the Technical Requirements, or approved by the Supplier; or  (d) modifications made to the System by the Purchaser, or a third party, not approved by the Supplier.  29.7 The Supplier’s obligations under this GCC Clause 29 shall not apply to:  (a) any materials that are normally consumed in operation or have a normal life shorter than the Warranty Period; or  (b) any designs, specifications, or other data designed, supplied, or specified by or on behalf of the Purchaser or any matters for which the Supplier has disclaimed responsibility, in accordance with GCC Clause 21.1.2.  29.8 The Purchaser shall give the Supplier a notice promptly following the discovery of such defect, stating the nature of any such defect together with all available evidence. The Purchaser shall afford all reasonable opportunity for the Supplier to inspect any such defect. The Purchaser shall afford the Supplier all necessary access to the System and the site to enable the Supplier to perform its obligations under this GCC Clause 29.  29.9 The Supplier may, with the consent of the Purchaser, remove from the site any Information Technologies and other Goods that are defective, if the nature of the defect, and/or any damage to the System caused by the defect, is such that repairs cannot be expeditiously carried out at the site. If the repair, replacement, or making good is of such a character that it may affect the efficiency of the System, the Purchaser may give the Supplier notice requiring that tests of the defective part be made by the Supplier immediately upon completion of such remedial work, whereupon the Supplier shall carry out such tests.  If such part fails the tests, the Supplier shall carry out further repair, replacement, or making good (as the case may be) until that part of the System passes such tests. The tests shall be agreed upon by the Purchaser and the Supplier.  29.10 **Unless otherwise specified in the SCC**, the response times and repair/replacement times for Warranty Defect Repair are specified in the Technical Requirements. Nevertheless, if the Supplier fails to commence the work necessary to remedy such defect or any damage to the System caused by such defect within two weeks the Purchaser may, following notice to the Supplier, proceed to do such work or contract a third party (or parties) to do such work, and the reasonable costs incurred by the Purchaser in connection with such work shall be paid to the Purchaser by the Supplier or may be deducted by the Purchaser from any monies due the Supplier or claimed under the Performance Security.  29.11 If the System or Subsystem cannot be used by reason of such defect and/or making good of such defect, the Warranty Period for the System shall be extended by a period equal to the period during which the System or Subsystem could not be used by the Purchaser because of such defect and/or making good of such defect.  29.12 Items substituted for defective parts of the System during the Warranty Period shall be covered by the Defect Liability Warranty for the remainder of the Warranty Period applicable for the part replaced or three (3) months, whichever is greater. For reasons of information security, the Purchaser may choose to retain physical possession of any replaced defective information storage devices.  29.13 At the request of the Purchaser and without prejudice to any other rights and remedies that the Purchaser may have against the Supplier under the Contract, the Supplier will offer all possible assistance to the Purchaser to seek warranty services or remedial action from any subcontracted third-party producers or licensor of Goods included in the System, including without limitation assignment or transfer in favor of the Purchaser of the benefit of any warranties given by such producers or licensors to the Supplier. |
| 30. Functional Guarantees | 30.1 The Supplier guarantees that, once the Operational Acceptance Certificate(s) has been issued, the System represents a complete, integrated solution to the Purchaser’s requirements set forth in the Technical Requirements and it conforms to all other aspects of the Contract. The Supplier acknowledges that GCC Clause 27 regarding Commissioning and Operational Acceptance governs how technical conformance of the System to the Contract requirements will be determined. |
|  | 30.2 If, for reasons attributable to the Supplier, the System does not conform to the Technical Requirements or does not conform to all other aspects of the Contract, the Supplier shall at its cost and expense make such changes, modifications, and/or additions to the System as may be necessary to conform to the Technical Requirements and meet all functional and performance standards. The Supplier shall notify the Purchaser upon completion of the necessary changes, modifications, and/or additions and shall request the Purchaser to repeat the Operational Acceptance Tests until the System achieves Operational Acceptance.  30.3 If the System (or Subsystem[s]) fails to achieve Operational Acceptance, the Purchaser may consider termination of the Contract, pursuant to GCC Clause 41.2.2, and forfeiture of the Supplier’s Performance Security in accordance with GCC Clause 13.3 in compensation for the extra costs and delays likely to result from this failure. |
| 31. Intellectual Property Rights Warranty | 31.1 The Supplier hereby represents and warrants that:  (a) the System as supplied, installed, tested, and accepted;  (b) use of the System in accordance with the Contract; and  (c) copying of the Software and Materials provided to the Purchaser in accordance with the Contract  do not and will not infringe any Intellectual Property Rights held by any third party and that it has all necessary rights or at its sole expense shall have secured in writing all transfers of rights and other consents necessary to make the assignments, licenses, and other transfers of Intellectual Property Rights and the warranties set forth in the Contract, and for the Purchaser to own or exercise all Intellectual Property Rights as provided in the Contract. Without limitation, the Supplier shall secure all necessary written agreements, consents, and transfers of rights from its employees and other persons or entities whose services are used for development of the System. |
| 32. Intellectual Property Rights Indemnity | 32.1 The Supplier shall indemnify and hold harmless the Purchaser and its employees and officers from and against any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability), that the Purchaser or its employees or officers may suffer as a result of any infringement or alleged infringement of any Intellectual Property Rights by reason of:  (a) installation of the System by the Supplier or the use of the System, including the Materials, in the country where the site is located;  (b) copying of the Software and Materials provided the Supplier in accordance with the Agreement; and |
|  | (c) sale of the products produced by the System in any country, except to the extent that such losses, liabilities, and costs arise as a result of the Purchaser’s breach of GCC Clause 32.2. |
|  | 32.2 Such indemnity shall not cover any use of the System, including the Materials, other than for the purpose indicated by or to be reasonably inferred from the Contract, any infringement resulting from the use of the System, or any products of the System produced thereby in association or combination with any other goods or services not supplied by the Supplier, where the infringement arises because of such association or combination and not because of use of the System in its own right.  32.3 Such indemnities shall also not apply if any claim of infringement:  (a) is asserted by a parent, subsidiary, or affiliate of the Purchaser’s organization;  (b) is a direct result of a design mandated by the Purchaser’s Technical Requirements and the possibility of such infringement was duly noted in the Supplier’s Bid; or  (c) results from the alteration of the System, including the Materials, by the Purchaser or any persons other than the Supplier or a person authorized by the Supplier. |
|  | 32.4 If any proceedings are brought or any claim is made against the Purchaser arising out of the matters referred to in GCC Clause 32.1, the Purchaser shall promptly give the Supplier notice of such proceedings or claims, and the Supplier may at its own expense and in the Purchaser’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim.  If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf. Unless the Supplier has so failed to notify the Purchaser within the twenty-eight (28) days, the Purchaser shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Purchaser shall, at the Supplier’s request, afford all available assistance to the Supplier in conducting such proceedings or claim and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing. |
|  | 32.5 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from and against any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability) that the Supplier or its employees, officers, or Subcontractors may suffer as a result of any infringement or alleged infringement of any Intellectual Property Rights arising out of or in connection with any design, data, drawing, specification, or other documents or materials provided to the Supplier in connection with this Contract by the Purchaser or any persons (other than the Supplier) contracted by the Purchaser, except to the extent that such losses, liabilities, and costs arise as a result of the Supplier’s breach of GCC Clause 32.8. |
|  | 32.6 Such indemnity shall not cover  (a) any use of the design, data, drawing, specification, or other documents or materials, other than for the purpose indicated by or to be reasonably inferred from the Contract;  (b) any infringement resulting from the use of the design, data, drawing, specification, or other documents or materials, or any products produced thereby, in association or combination with any other Goods or Services not provided by the Purchaser or any other person contracted by the Purchaser, where the infringement arises because of such association or combination and not because of the use of the design, data, drawing, specification, or other documents or materials in its own right.  32.7 Such indemnities shall also not apply:  (a) if any claim of infringement is asserted by a parent, subsidiary, or affiliate of the Supplier’s organization;  (b) to the extent that any claim of infringement is caused by the alteration, by the Supplier, or any persons contracted by the Supplier, of the design, data, drawing, specification, or other documents or materials provided to the Supplier by the Purchaser or any persons contracted by the Purchaser.  32.8 If any proceedings are brought or any claim is made against the Supplier arising out of the matters referred to in GCC Clause 32.5, the Supplier shall promptly give the Purchaser notice of such proceedings or claims, and the Purchaser may at its own expense and in the Supplier’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If the Purchaser fails to notify the Supplier within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Supplier shall be free to conduct the same on its own behalf. Unless the Purchaser has so failed to notify the Supplier within the twenty-eight (28) days, the Supplier shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Supplier shall, at the Purchaser’s request, afford all available assistance to the Purchaser in conducting such proceedings or claim and shall be reimbursed by the Purchaser for all reasonable expenses incurred in so doing. |
| 33. Limitation of Liability | 33.1 Provided the following does not exclude or limit any liabilities of either party in ways not permitted by applicable law: |
|  | (a) the Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and  (b) the aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Supplier to indemnify the Purchaser with respect to intellectual property rights infringement. |

G. Risk Distribution

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| 34. Transfer of Ownership | 34.1 With the exception of Software and Materials, the ownership of the Information Technologies and other Goods shall be transferred to the Purchaser at the time of Delivery or otherwise under terms that may be agreed upon and specified in the Contract Agreement. |
|  | 34.2 Ownership and the terms of usage of the Software and Materials supplied under the Contract shall be governed by GCC Clause 15 (Copyright) Clause 16 (Software License Agreements), and any elaboration in the Technical Requirements.  34.3 Ownership of the Supplier’s Equipment used by the Supplier and its Subcontractors in connection with the Contract shall remain with the Supplier or its Subcontractors. |
| 35. Care of the System | 35.1 The Purchaser shall become responsible for the care and custody of the System or Subsystems upon their Delivery. The Purchaser shall make good at its own cost any loss or damage that may occur to the System or Subsystems from any cause from the date of Delivery until the date of Operational Acceptance of the System or Subsystems, pursuant to GCC Clause 27 (Commissioning and Operational Acceptance), excepting such loss or damage arising from acts or omissions of the Supplier, its employees, or subcontractors.  35.2 If any loss or damage occurs to the System or any part of the System by reason of:  (a) (insofar as they relate to the country where the Project Site is located) nuclear reaction, nuclear radiation, radioactive contamination, a pressure wave caused by aircraft or other aerial objects, or any other occurrences that an experienced Supplier could not reasonably foresee, or if reasonably foreseeable could not reasonably make provision for or insure against, insofar as such risks are not normally insurable on the insurance market and are mentioned in the general exclusions of the policy of insurance taken out under GCC Clause 37;  (b) any use not in accordance with the Contract, by the Purchaser or any third party;  (c) any use of or reliance upon any design, data, or specification provided or designated by or on behalf of the Purchaser, or any such matter for which the Supplier has disclaimed responsibility in accordance with GCC Clause 21.1.2,  the Purchaser shall pay to the Supplier all sums payable in respect of the System or Subsystems that have achieved Operational Acceptance, notwithstanding that the same be lost, destroyed, or damaged. If the Purchaser requests the Supplier in writing to make good any loss or damage to the System thereby occasioned, the Supplier shall make good the same at the cost of the Purchaser in accordance with GCC Clause 39. If the Purchaser does not request the Supplier in writing to make good any loss or damage to the System thereby occasioned, the Purchaser shall either request a change in accordance with GCC Clause 39, excluding the performance of that part of the System thereby lost, destroyed, or damaged, or, where the loss or damage affects a substantial part of the System, the Purchaser shall terminate the Contract pursuant to GCC Clause 41.1.  35.3 The Purchaser shall be liable for any loss of or damage to any Supplier’s Equipment which the Purchaser has authorized to locate within the Purchaser's premises for use in fulfillment of Supplier's obligations under the Contract, except where such loss or damage arises from acts or omissions of the Supplier, its employees, or subcontractors. |
| 36. Loss of or Damage to Property; Accident or Injury to Workers; Indemnification | 36.1 The Supplier and each and every Subcontractor shall abide by the job safety, insurance, customs, and immigration measures prevalent and laws in force in the Purchaser’s Country.  36.2 Subject to GCC Clause 36.3, the Supplier shall indemnify and hold harmless the Purchaser and its employees and officers from and against any and all losses, liabilities and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability) that the Purchaser or its employees or officers may suffer as a result of the death or injury of any person or loss of or damage to any property (other than the System, whether accepted or not) arising in connection with the supply, installation, testing, and Commissioning of the System and by reason of the negligence of the Supplier or its Subcontractors, or their employees, officers or agents, except any injury, death, or property damage caused by the negligence of the Purchaser, its contractors, employees, officers, or agents. |
|  | 36.3 If any proceedings are brought or any claim is made against the Purchaser that might subject the Supplier to liability under GCC Clause 36.2, the Purchaser shall promptly give the Supplier notice of such proceedings or claims, and the Supplier may at its own expense and in the Purchaser’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If the Supplier fails to notify the Purchaser within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Purchaser shall be free to conduct the same on its own behalf. Unless the Supplier has so failed to notify the Purchaser within the twenty-eight (28) day period, the Purchaser shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Purchaser shall, at the Supplier’s request, afford all available assistance to the Supplier in conducting such proceedings or claim and shall be reimbursed by the Supplier for all reasonable expenses incurred in so doing.  36.4 The Purchaser shall indemnify and hold harmless the Supplier and its employees, officers, and Subcontractors from any and all losses, liabilities, and costs (including losses, liabilities, and costs incurred in defending a claim alleging such a liability) that the Supplier or its employees, officers, or Subcontractors may suffer as a result of the death or personal injury of any person or loss of or damage to property of the Purchaser, other than the System not yet achieving Operational Acceptance, that is caused by fire, explosion, or any other perils, in excess of the amount recoverable from insurances procured under GCC Clause 37 (Insurances), provided that such fire, explosion, or other perils were not caused by any act or failure of the Supplier. |
|  | 36.5 If any proceedings are brought or any claim is made against the Supplier that might subject the Purchaser to liability under GCC Clause 36.4, the Supplier shall promptly give the Purchaser notice of such proceedings or claims, and the Purchaser may at its own expense and in the Supplier’s name conduct such proceedings or claim and any negotiations for the settlement of any such proceedings or claim. If the Purchaser fails to notify the Supplier within twenty-eight (28) days after receipt of such notice that it intends to conduct any such proceedings or claim, then the Supplier shall be free to conduct the same on its own behalf. Unless the Purchaser has so failed to notify the Supplier within the twenty-eight (28) days, the Supplier shall make no admission that may be prejudicial to the defense of any such proceedings or claim. The Supplier shall, at the Purchaser’s request, afford all available assistance to the Purchaser in conducting such proceedings or claim and shall be reimbursed by the Purchaser for all reasonable expenses incurred in so doing. |
|  | 36.6 The party entitled to the benefit of an indemnity under this GCC Clause 36 shall take all reasonable measures to mitigate any loss or damage that has occurred. If the party fails to take such measures, the other party’s liabilities shall be correspondingly reduced. |
| 37. Insurances | 37.1 The Supplier shall at its expense take out and maintain in effect, or cause to be taken out and maintained in effect, during the performance of the Contract, the insurance set forth below. The identity of the insurers and the form of the policies shall be subject to the approval of the Purchaser, who should not unreasonably withhold such approval. |
|  | (a) Cargo Insurance During Transport  as applicable, 110 percent of the price of the Information Technologies and other Goods in a freely convertible currency, covering the Goods from physical loss or damage during shipment through receipt at the Project Site.  (b) Installation “All Risks” Insurance  as applicable, 110 percent of the price of the Information Technologies and other Goods covering the Goods at the site from all risks of physical loss or damage (excluding only perils commonly excluded under “all risks” insurance policies of this type by reputable insurers) occurring prior to Operational Acceptance of the System.  (c) Third-Party Liability Insurance  On terms as **specified in the SCC,** covering bodily injury or death suffered by third parties (including the Purchaser’s personnel) and loss of or damage to property (including the Purchaser’s property and any Subsystems that have been accepted by the Purchaser) occurring in connection with the supply and installation of the Information System.  (d) Automobile Liability Insurance  In accordance with the statutory requirements prevailing in the Purchaser’s Country, covering use of all vehicles used by the Supplier or its Subcontractors (whether or not owned by them) in connection with the execution of the Contract.  (e) Other Insurance (if any), as **specified in the SCC.**  37.2 The Purchaser shall be named as co-insured under all insurance policies taken out by the Supplier pursuant to GCC Clause 37.1, except for the Third-Party Liability, and the Supplier’s Subcontractors shall be named as co-insured under all insurance policies taken out by the Supplier pursuant to GCC Clause 37.1 except for Cargo Insurance During Transport. All insurer’s rights of subrogation against such co-insured for losses or claims arising out of the performance of the Contract shall be waived under such policies.  37.3 The Supplier shall deliver to the Purchaser certificates of insurance (or copies of the insurance policies) as evidence that the required policies are in full force and effect.  37.4 The Supplier shall ensure that, where applicable, its Subcontractor(s) shall take out and maintain in effect adequate insurance policies for their personnel and vehicles and for work executed by them under the Contract, unless such Subcontractors are covered by the policies taken out by the Supplier.  37.5 If the Supplier fails to take out and/or maintain in effect the insurance referred to in GCC Clause 37.1, the Purchaser may take out and maintain in effect any such insurance and may from time to time deduct from any amount due the Supplier under the Contract any premium that the Purchaser shall have paid to the insurer or may otherwise recover such amount as a debt due from the Supplier.  37.6 Unless otherwise provided in the Contract, the Supplier shall prepare and conduct all and any claims made under the policies affected by it pursuant to this GCC Clause 37, and all monies payable by any insurers shall be paid to the Supplier. The Purchaser shall give to the Supplier all such reasonable assistance as may be required by the Supplier in connection with any claim under the relevant insurance policies. With respect to insurance claims in which the Purchaser’s interest is involved, the Supplier shall not give any release or make any compromise with the insurer without the prior written consent of the Purchaser. With respect to insurance claims in which the Supplier’s interest is involved, the Purchaser shall not give any release or make any compromise with the insurer without the prior written consent of the Supplier. |
| 38. Force Majeure | 38.1 “Force Majeure” shall mean any event beyond the reasonable control of the Purchaser or of the Supplier, as the case may be, and which is unavoidable notwithstanding the reasonable care of the party affected and shall include, without limitation, the following: |
|  | (a) war, hostilities, or warlike operations (whether a state of war be declared or not), invasion, act of foreign enemy, and civil war;  (b) rebellion, revolution, insurrection, mutiny, usurpation of civil or military government, conspiracy, riot, civil commotion, and terrorist acts;  (c) confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de jure or de facto authority or ruler, or any other act or failure to act of any local state or national government authority;  (d) strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of public transportation and communication, industrial dispute, shipwreck, shortage or restriction of power supply, epidemics, quarantine, and plague;  (e) earthquake, landslide, volcanic activity, fire, flood or inundation, tidal wave, typhoon or cyclone, hurricane, storm, lightning, or other inclement weather condition, nuclear and pressure waves, or other natural or physical disaster;  (f) failure, by the Supplier, to obtain the necessary export permit(s) from the governments of the Country(s) of Origin of the Information Technologies or other Goods, or Supplier’s Equipment provided that the Supplier has made all reasonable efforts to obtain the required export permit(s), including the exercise of due diligence in determining the eligibility of the System and all of its components for receipt of the necessary export permits.  38.2 If either party is prevented, hindered, or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances of the event of Force Majeure within fourteen (14) days after the occurrence of such event.  38.3 The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party’s performance is prevented, hindered, or delayed. The Time for Achieving Operational Acceptance shall be extended in accordance with GCC Clause 40 (Extension of Time for Achieving Operational Acceptance).  38.4 The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upon its or their performance of the Contract and to fulfill its or their obligations under the Contract, but without prejudice to either party’s right to terminate the Contract under GCC Clause 38.6.  38.5 No delay or nonperformance by either party to this Contract caused by the occurrence of any event of Force Majeure shall:  (a) constitute a default or breach of the Contract;  (b) (subject to GCC Clauses 35.2, 38.3, and 38.4) give rise to any claim for damages or additional cost or expense occasioned by the delay or nonperformance,  if, and to the extent that, such delay or nonperformance is caused by the occurrence of an event of Force Majeure.  38.6 If the performance of the Contract is substantially prevented, hindered, or delayed for a single period of more than sixty (60) days or an aggregate period of more than one hundred and twenty (120) days on account of one or more events of Force Majeure during the time period covered by the Contract, the parties will attempt to develop a mutually satisfactory solution, failing which, either party may terminate the Contract by giving a notice to the other.  38.7 In the event of termination pursuant to GCC Clause 38.6, the rights and obligations of the Purchaser and the Supplier shall be as specified in GCC Clauses 41.1.2 and 41.1.3.  38.8 Notwithstanding GCC Clause 38.5, Force Majeure shall not apply to any obligation of the Purchaser to make payments to the Supplier under this Contract. |

H. Change in Contract Elements

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| 39. Changes to the System | 39.1 Introducing a Change  39.1.1 Subject to GCC Clauses 39.2.5 and 39.2.7, the Purchaser shall have the right to propose, and subsequently require, the Project Manager to order the Supplier from time to time during the performance of the Contract to make any change, modification, addition, or deletion to, in, or from the System (interchangeably called “Change”), provided that such Change falls within the general scope of the System, does not constitute unrelated work, and is technically practicable, taking into account both the state of advancement of the System and the technical compatibility of the Change envisaged with the nature of the System as originally specified in the Contract. |
|  | A Change may involve, but is not restricted to, the substitution of updated Information Technologies and related Services in accordance with GCC Clause 23 (Product Upgrades). |
|  | 39.1.2 The Supplier may from time to time during its performance of the Contract propose to the Purchaser (with a copy to the Project Manager) any Change that the Supplier considers necessary or desirable to improve the quality or efficiency of the System. The Purchaser may at its discretion approve or reject any Change proposed by the Supplier.  39.1.3 Notwithstanding GCC Clauses 39.1.1 and 39.1.2, no change made necessary because of any default of the Supplier in the performance of its obligations under the Contract shall be deemed to be a Change, and such change shall not result in any adjustment of the Contract Price or the Time for Achieving Operational Acceptance.  39.1.4 The procedure on how to proceed with and execute Changes is specified in GCC Clauses 39.2 and 39.3, and further details and sample forms are provided in the Sample Contractual Forms Section in the bidding documents.  39.1.5 Moreover, the Purchaser and Supplier will agree, during development of the Project Plan, to a date prior to the scheduled date for Operational Acceptance, after which the Technical Requirements for the System shall be “frozen.” Any Change initiated after this time will be dealt with after Operational Acceptance.  39.2 Changes Originating from Purchaser  39.2.1 If the Purchaser proposes a Change pursuant to GCC Clauses 39.1.1, it shall send to the Supplier a “Request for Change Proposal,” requiring the Supplier to prepare and furnish to the Project Manager as soon as reasonably practicable a “Change Proposal,” which shall include the following:  (a) brief description of the Change;  (b) impact on the Time for Achieving Operational Acceptance;  (c) detailed estimated cost of the Change;  (d) effect on Functional Guarantees (if any);  (e) effect on any other provisions of the Contract.  39.2.2 Prior to preparing and submitting the “Change Proposal,” the Supplier shall submit to the Project Manager a “Change Estimate Proposal,” which shall be an estimate of the cost of preparing the Change Proposal, plus a first approximation of the suggested approach and cost for implementing the changes. Upon receipt of the Supplier’s Change Estimate Proposal, the Purchaser shall do one of the following:  (a) accept the Supplier’s estimate with instructions to the Supplier to proceed with the preparation of the Change Proposal;  (b) advise the Supplier of any part of its Change Estimate Proposal that is unacceptable and request the Supplier to review its estimate;  (c) advise the Supplier that the Purchaser does not intend to proceed with the Change.  39.2.3 Upon receipt of the Purchaser’s instruction to proceed under GCC Clause 39.2.2 (a), the Supplier shall, with proper expedition, proceed with the preparation of the Change Proposal, in accordance with GCC Clause 39.2.1. The Supplier, at its discretion, may specify a validity period for the Change Proposal, after which if the Purchaser and Supplier has not reached agreement in accordance with GCC Clause 39.2.6, then GCC Clause 39.2.7 shall apply.  39.2.4 The pricing of any Change shall, as far as practicable, be calculated in accordance with the rates and prices included in the Contract. If the nature of the Change is such that the Contract rates and prices are inequitable, the parties to the Contract shall agree on other specific rates to be used for valuing the Change.  39.2.5 If before or during the preparation of the Change Proposal it becomes apparent that the aggregate impact of compliance with the Request for Change Proposal and with all other Change Orders that have already become binding upon the Supplier under this GCC Clause 39 would be to increase or decrease the Contract Price as originally set forth in Article 2 (Contract Price) of the Contract Agreement by more than fifteen (15) percent, the Supplier may give a written notice of objection to this Request for Change Proposal prior to furnishing the Change Proposal. If the Purchaser accepts the Supplier’s objection, the Purchaser shall withdraw the proposed Change and shall notify the Supplier in writing of its acceptance.  The Supplier’s failure to so object to a Request for Change Proposal shall neither affect its right to object to any subsequent requested Changes or Change Orders, nor affect its right to take into account, when making such subsequent objection, the percentage increase or decrease in the Contract Price that any Change not objected to by the Supplier represents.  39.2.6 Upon receipt of the Change Proposal, the Purchaser and the Supplier shall mutually agree upon all matters contained in the Change Proposal. Within fourteen (14) days after such agreement, the Purchaser shall, if it intends to proceed with the Change, issue the Supplier a Change Order. If the Purchaser is unable to reach a decision within fourteen (14) days, it shall notify the Supplier with details of when the Supplier can expect a decision. If the Purchaser decides not to proceed with the Change for whatever reason, it shall, within the said period of fourteen (14) days, notify the Supplier accordingly. Under such circumstances, the Supplier shall be entitled to reimbursement of all costs reasonably incurred by it in the preparation of the Change Proposal, provided that these do not exceed the amount given by the Supplier in its Change Estimate Proposal submitted in accordance with GCC Clause 39.2.2.  39.2.7 If the Purchaser and the Supplier cannot reach agreement on the price for the Change, an equitable adjustment to the Time for Achieving Operational Acceptance, or any other matters identified in the Change Proposal, the Change will not be implemented. However, this provision does not limit the rights of either party under GCC Clause 6 (Settlement of Disputes).  39.3 Changes Originating from Supplier  If the Supplier proposes a Change pursuant to GCC Clause 39.1.2, the Supplier shall submit to the Project Manager a written “Application for Change Proposal,” giving reasons for the proposed Change and including the information specified in GCC Clause 39.2.1. Upon receipt of the Application for Change Proposal, the parties shall follow the procedures outlined in GCC Clauses 39.2.6 and 39.2.7. However, should the Purchaser choose not to proceed or the Purchaser and the Supplier cannot come to agreement on the change during any validity period that the Supplier may specify in its Application for Change Proposal, the Supplier shall not be entitled to recover the costs of preparing the Application for Change Proposal, unless subject to an agreement between the Purchaser and the Supplier to the contrary.  39.4 Value engineering. The Supplier may prepare, at its own cost, a value engineering proposal at any time during the performance of the Contract. The value engineering proposal shall, at a minimum, include the following;  (a) the proposed change(s), and a description of the difference to the existing Contract requirements;  (b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle costs) the Purchaser may incur in implementing the value engineering proposal; and  (c) a description of any effect(s) of the change on performance/functionality.  The Purchaser may accept the value engineering proposal if the proposal demonstrates benefits that:  (a) accelerates the delivery period; or  (b) reduces the Contract Price or the life cycle costs to the Purchaser; or  (c) improves the quality, efficiency, safety or sustainability of the systems; or  (d) yields any other benefits to the Purchaser,  without compromising the necessary functions of the systems.  If the value engineering proposal is approved by the Purchaser and results in:  (a) a reduction of the Contract Price; the amount to be paid to the Supplier shall be the percentage specified in the SCC of the reduction in the Contract Price; or  (b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above,  the amount to be paid to the Supplier shall be the full increase in the Contract Price. |
| 40. Extension of Time for Achieving Operational Acceptance | 40.1 The time(s) for achieving Operational Acceptance specified in the Schedule of Implementation shall be extended if the Supplier is delayed or impeded in the performance of any of its obligations under the Contract by reason of any of the following: |
|  | (a) any Change in the System as provided in GCC Clause 39 (Change in the Information System);  (b) any occurrence of Force Majeure as provided in GCC Clause 38 (Force Majeure);  (c) default of the Purchaser; or  (d) any other matter specifically mentioned in the Contract;  by such period as shall be fair and reasonable in all the circumstances and as shall fairly reflect the delay or impediment sustained by the Supplier.  40.2 Except where otherwise specifically provided in the Contract, the Supplier shall submit to the Project Manager a notice of a claim for an extension of the time for achieving Operational Acceptance, together with particulars of the event or circumstance justifying such extension as soon as reasonably practicable after the commencement of such event or circumstance. As soon as reasonably practicable after receipt of such notice and supporting particulars of the claim, the Purchaser and the Supplier shall agree upon the period of such extension. In the event that the Supplier does not accept the Purchaser’s estimate of a fair and reasonable time extension, the Supplier shall be entitled to refer the matter to the provisions for the Settlement of Disputes pursuant to GCC Clause 43.  40.3 The Supplier shall at all times use its reasonable efforts to minimize any delay in the performance of its obligations under the Contract. |
| 41. Termination | 41.1 Termination for Purchaser’s Convenience |
|  | 41.1.1 The Purchaser may at any time terminate the Contract for any reason by giving the Supplier a notice of termination that refers to this GCC Clause 41.1.  41.1.2 Upon receipt of the notice of termination under GCC Clause 41.1.1, the Supplier shall either as soon as reasonably practical or upon the date specified in the notice of termination  (a) cease all further work, except for such work as the Purchaser may specify in the notice of termination for the sole purpose of protecting that part of the System already executed, or any work required to leave the site in a clean and safe condition;  (b) terminate all subcontracts, except those to be assigned to the Purchaser pursuant to GCC Clause 41.1.2 (d) (ii) below;  (c) remove all Supplier’s Equipment from the site, repatriate the Supplier’s Personnel from the site, remove from the site any wreckage, rubbish, and debris of any kind;  (d) in addition, the Supplier, subject to the payment specified in GCC Clause 41.1.3, shall  (i) deliver to the Purchaser the parts of the System executed by the Supplier up to the date of termination;  (ii) to the extent legally possible, assign to the Purchaser all right, title, and benefit of the Supplier to the System, or Subsystem, as at the date of termination, and, as may be required by the Purchaser, in any subcontracts concluded between the Supplier and its Subcontractors;  (iii) deliver to the Purchaser all nonproprietary drawings, specifications, and other documents prepared by the Supplier or its Subcontractors as of the date of termination in connection with the System.  41.1.3 In the event of termination of the Contract under GCC Clause 41.1.1, the Purchaser shall pay to the Supplier the following amounts:  (a) the Contract Price, properly attributable to the parts of the System executed by the Supplier as of the date of termination;  (b) the costs reasonably incurred by the Supplier in the removal of the Supplier’s Equipment from the site and in the repatriation of the Supplier’s Personnel;  (c) any amount to be paid by the Supplier to its Subcontractors in connection with the termination of any subcontracts, including any cancellation charges;  (d) costs incurred by the Supplier in protecting the System and leaving the site in a clean and safe condition pursuant to GCC Clause 41.1.2 (a); and  (e) the cost of satisfying all other obligations, commitments, and claims that the Supplier may in good faith have undertaken with third parties in connection with the Contract and that are not covered by GCC Clauses 41.1.3 (a) through (d) above.  41.2 Termination for Supplier’s Default  41.2.1 The Purchaser, without prejudice to any other rights or remedies it may possess, may terminate the Contract forthwith in the following circumstances by giving a notice of termination and its reasons therefore to the Supplier, referring to this GCC Clause 41.2:  (a) if the Supplier becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Supplier is a corporation, a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Supplier takes or suffers any other analogous action in consequence of debt;  (b) if the Supplier assigns or transfers the Contract or any right or interest therein in violation of the provision of GCC Clause 42 (Assignment); or  (c) if the Supplier, in the judgment of the Purchaser has engaged in Fraud and Corruption, as defined in paragraph 2.2 a. of the Appendix 1 to the GCC, in competing for or in executing the Contract, including but not limited to willful misrepresentation of facts concerning ownership of Intellectual Property Rights in, or proper authorization and/or licenses from the owner to offer, the hardware, software, or materials provided under this Contract.  41.2.2 If the Supplier:  (a) has abandoned or repudiated the Contract;  (b) has without valid reason failed to commence work on the System promptly;  (c) persistently fails to execute the Contract in accordance with the Contract or persistently neglects to carry out its obligations under the Contract without just cause;  (d) refuses or is unable to provide sufficient Materials, Services, or labor to execute and complete the System in the manner specified in the Agreed Project Plan furnished under GCC Clause 19 at rates of progress that give reasonable assurance to the Purchaser that the Supplier can attain Operational Acceptance of the System by the Time for Achieving Operational Acceptance as extended;  then the Purchaser may, without prejudice to any other rights it may possess under the Contract, give a notice to the Supplier stating the nature of the default and requiring the Supplier to remedy the same. If the Supplier fails to remedy or to take steps to remedy the same within thirty (30) days of its receipt of such notice, then the Purchaser may terminate the Contract forthwith by giving a notice of termination to the Supplier that refers to this GCC Clause 41.2.  41.2.3 Upon receipt of the notice of termination under GCC Clauses 41.2.1 or 41.2.2, the Supplier shall, either immediately or upon such date as is specified in the notice of termination:  (a) cease all further work, except for such work as the Purchaser may specify in the notice of termination for the sole purpose of protecting that part of the System already executed or any work required to leave the site in a clean and safe condition;  (b) terminate all subcontracts, except those to be assigned to the Purchaser pursuant to GCC Clause 41.2.3 (d) below;  (c) deliver to the Purchaser the parts of the System executed by the Supplier up to the date of termination;  (d) to the extent legally possible, assign to the Purchaser all right, title and benefit of the Supplier to the System or Subsystems as at the date of termination, and, as may be required by the Purchaser, in any subcontracts concluded between the Supplier and its Subcontractors;  (e) deliver to the Purchaser all drawings, specifications, and other documents prepared by the Supplier or its Subcontractors as at the date of termination in connection with the System.  41.2.4 The Purchaser may enter upon the site, expel the Supplier, and complete the System itself or by employing any third party. Upon completion of the System or at such earlier date as the Purchaser thinks appropriate, the Purchaser shall give notice to the Supplier that such Supplier’s Equipment will be returned to the Supplier at or near the site and shall return such Supplier’s Equipment to the Supplier in accordance with such notice. The Supplier shall thereafter without delay and at its cost remove or arrange removal of the same from the site.  41.2.5 Subject to GCC Clause 41.2.6, the Supplier shall be entitled to be paid the Contract Price attributable to the portion of the System executed as at the date of termination and the costs, if any, incurred in protecting the System and in leaving the site in a clean and safe condition pursuant to GCC Clause 41.2.3 (a). Any sums due the Purchaser from the Supplier accruing prior to the date of termination shall be deducted from the amount to be paid to the Supplier under this Contract.  41.2.6 If the Purchaser completes the System, the cost of completing the System by the Purchaser shall be determined. If the sum that the Supplier is entitled to be paid, pursuant to GCC Clause 41.2.5, plus the reasonable costs incurred by the Purchaser in completing the System, exceeds the Contract Price, the Supplier shall be liable for such excess. If such excess is greater than the sums due the Supplier under GCC Clause 41.2.5, the Supplier shall pay the balance to the Purchaser, and if such excess is less than the sums due the Supplier under GCC Clause 41.2.5, the Purchaser shall pay the balance to the Supplier. The Purchaser and the Supplier shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.  41.3 Termination by Supplier  41.3.1 If:  (a) the Purchaser has failed to pay the Supplier any sum due under the Contract within the specified period, has failed to approve any invoice or supporting documents without just cause **pursuant to the SCC,** or commits a substantial breach of the Contract, the Supplier may give a notice to the Purchaser that requires payment of such sum, with interest on this sum as stipulated in GCC Clause 12.3, requires approval of such invoice or supporting documents, or specifies the breach and requires the Purchaser to remedy the same, as the case may be. If the Purchaser fails to pay such sum together with such interest, fails to approve such invoice or supporting documents or give its reasons for withholding such approval, fails to remedy the breach or take steps to remedy the breach within fourteen (14) days after receipt of the Supplier’s notice; or  (b) the Supplier is unable to carry out any of its obligations under the Contract for any reason attributable to the Purchaser, including but not limited to the Purchaser’s failure to provide possession of or access to the site or other areas or failure to obtain any governmental permit necessary for the execution and/or completion of the System;  then the Supplier may give a notice to the Purchaser of such events, and if the Purchaser has failed to pay the outstanding sum, to approve the invoice or supporting documents, to give its reasons for withholding such approval, or to remedy the breach within twenty-eight (28) days of such notice, or if the Supplier is still unable to carry out any of its obligations under the Contract for any reason attributable to the Purchaser within twenty-eight (28) days of the said notice, the Supplier may by a further notice to the Purchaser referring to this GCC Clause 41.3.1, forthwith terminate the Contract.  41.3.2 The Supplier may terminate the Contract immediately by giving a notice to the Purchaser to that effect, referring to this GCC Clause 41.3.2, if the Purchaser becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, being a corporation, if a resolution is passed or order is made for its winding up (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), a receiver is appointed over any part of its undertaking or assets, or if the Purchaser takes or suffers any other analogous action in consequence of debt.  41.3.3 If the Contract is terminated under GCC Clauses 41.3.1 or 41.3.2, then the Supplier shall immediately:  (a) cease all further work, except for such work as may be necessary for the purpose of protecting that part of the System already executed, or any work required to leave the site in a clean and safe condition;  (b) terminate all subcontracts, except those to be assigned to the Purchaser pursuant to Clause 41.3.3 (d) (ii);  (c) remove all Supplier’s Equipment from the site and repatriate the Supplier’s Personnel from the site.  (d) In addition, the Supplier, subject to the payment specified in GCC Clause 41.3.4, shall:  (i) deliver to the Purchaser the parts of the System executed by the Supplier up to the date of termination;  (ii) to the extent legally possible, assign to the Purchaser all right, title, and benefit of the Supplier to the System, or Subsystems, as of the date of termination, and, as may be required by the Purchaser, in any subcontracts concluded between the Supplier and its Subcontractors;  (iii) to the extent legally possible, deliver to the Purchaser all drawings, specifications, and other documents prepared by the Supplier or its Subcontractors as of the date of termination in connection with the System.  41.3.4 If the Contract is terminated under GCC Clauses 41.3.1 or 41.3.2, the Purchaser shall pay to the Supplier all payments specified in GCC Clause 41.1.3 and reasonable compensation for all loss, except for loss of profit, or damage sustained by the Supplier arising out of, in connection with, or in consequence of such termination.  41.3.5 Termination by the Supplier pursuant to this GCC Clause 41.3 is without prejudice to any other rights or remedies of the Supplier that may be exercised in lieu of or in addition to rights conferred by GCC Clause 41.3.  41.4 In this GCC Clause 41, the expression “portion of the System executed” shall include all work executed, Services provided, and all Information Technologies, or other Goods acquired (or subject to a legally binding obligation to purchase) by the Supplier and used or intended to be used for the purpose of the System, up to and including the date of termination.  41.5 In this GCC Clause 41, in calculating any monies due from the Purchaser to the Supplier, account shall be taken of any sum previously paid by the Purchaser to the Supplier under the Contract, including any advance payment paid **pursuant to the SCC.** |
| 42. Assignment | 42.l Neither the Purchaser nor the Supplier shall, without the express prior written consent of the other, assign to any third party the Contract or any part thereof, or any right, benefit, obligation, or interest therein or thereunder, except that the Supplier shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Contract. |

I. Settlement of Disputes

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| 43. Settlement of Disputes | 43.1 Adjudication |
|  | 43.1.1 If any dispute of any kind whatsoever shall arise between the Purchaser and the Supplier in connection with or arising out of the Contract, including without prejudice to the generality of the foregoing, any question regarding its existence, validity, or termination, or the operation of the System (whether during the progress of implementation or after its achieving Operational Acceptance and whether before or after the termination, abandonment, or breach of the Contract), the parties shall seek to resolve any such dispute by mutual consultation. If the parties fail to resolve such a dispute by mutual consultation within fourteen (14) days after one party has notified the other in writing of the dispute, then, if the Contract Agreement in Appendix 2 includes and names an Adjudicator, the dispute shall, within another fourteen (14) days, be referred in writing by either party to the Adjudicator, with a copy to the other party. If there is no Adjudicator specified in the Contract Agreement, the mutual consultation period stated above shall last twenty-eight (28) days (instead of fourteen), upon expiry of which either party may move to the notification of arbitration pursuant to GCC Clause 43.2.1. |
|  | 43.1.2 The Adjudicator shall give his or her decision in writing to both parties within twenty-eight (28) days of the dispute being referred to the Adjudicator. If the Adjudicator has done so, and no notice of intention to commence arbitration has been given by either the Purchaser or the Supplier within fifty-six (56) days of such reference, the decision shall become final and binding upon the Purchaser and the Supplier. Any decision that has become final and binding shall be implemented by the parties forthwith.  43.1.3 The Adjudicator shall be paid an hourly fee at the rate specified in the Contract Agreement plus reasonable expenditures incurred in the execution of duties as Adjudicator, and these costs shall be divided equally between the Purchaser and the Supplier.  43.1.4 Should the Adjudicator resign or die, or should the Purchaser and the Supplier agree that the Adjudicator is not fulfilling his or her functions in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Purchaser and the Supplier. Failing agreement between the two within twenty-eight (28) days, the new Adjudicator shall be appointed at the request of either party by the Appointing Authority **specified in the SCC,** or, if no Appointing Authority is **specified in SCC,** the Contract shall, from this point onward and until the parties may otherwise agree on an Adjudicator or an Appointing Authority, be implemented as if there is no Adjudicator.  43.2 Arbitration  43.2.1 If  (a) the Purchaser or the Supplier is dissatisfied with the Adjudicator’s decision and acts before this decision has become final and binding pursuant to GCC Clause 43.1.2, or  (b) the Adjudicator fails to give a decision within the allotted time from referral of the dispute pursuant to GCC Clause 43.1.2, and the Purchaser or the Supplier acts within the following fourteen (14) days, or  (c) in the absence of an Adjudicator from the Contract Agreement, the mutual consultation pursuant to GCC Clause 43.1.1 expires without resolution of the dispute and the Purchaser or the Supplier acts within the following fourteen (14) days,  then either the Purchaser or the Supplier may act to give notice to the other party, with a copy for information to the Adjudicator in case an Adjudicator had been involved, of its intention to commence arbitration, as provided below, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.  43.2.2 Any dispute in respect of which a notice of intention to commence arbitration has been given, in accordance with GCC Clause 43.2.1, shall be finally settled by arbitration. Arbitration may be commenced prior to or after Installation of the Information System.  43.2.3 Arbitration proceedings shall be conducted in accordance with the rules of procedure **specified in the SCC.**  43.3 Notwithstanding any reference to the Adjudicator or arbitration in this clause,  (a) the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree;  (b) the Purchaser shall pay the Supplier any monies due the Supplier. |

**APPENDIX 1**

**Fraud and Corruption**

***(Text in this Appendix shall not be modified)***

1. **Purpose**
   1. The Bank’s Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.
2. **Requirements**
3. The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.
4. To this end, the Bank:
5. Defines, for the purposes of this provision, the terms set forth below as follows:
6. “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
7. “fraudulent practice” is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
8. “collusive practice” is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
9. “coercive practice” is impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
10. “obstructive practice” is:
11. deliberately destroying, falsifying, altering, or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive, or collusive practice; and/or threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or
12. acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 2.2 e. below.
13. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
14. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring misprocurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
15. Pursuant to the Bank’s Anti-Corruption Guidelines, and in accordance with the Bank’s prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;[[12]](#footnote-13) (ii) to be a nominated[[13]](#footnote-14) sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
16. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect[[14]](#footnote-15) all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

**APPENDIX 2**

**Sexual Exploitation and Abuse (SEA) and/or Sexual Harassment (SH) Performance Declaration for Subcontractors**

*[The following table shall be filled in by each subcontractor proposed by the Supplier, that was not named in the Contract]*

Subcontractor’s Name: *[insert full name]*

Date: *[insert day, month, year]*Contract reference *[insert contract reference]*Page *[insert page number]* of *[insert total number]* pages

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| --- |
| **SEA and/or SH Declaration** |
| We:   (a) have not been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.   (b) are subject to disqualification by the Bank for non-compliance with SEA/ SH obligations.   (c) had been subject to disqualification by the Bank for non-compliance with SEA/ SH obligations, and were removed from the disqualification list. An arbitral award on the disqualification case has been made in our favor. |
| **[*If (c) above is applicable*, *attach evidence of an arbitral award reversing the findings on the issues underlying the disqualification.]*** |
|  |
| Period of disqualification: From: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ To: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

Name of the Subcontractor

Name of the person duly authorized to sign on behalf of the Subcontractor \_\_\_\_\_\_\_

Title of the person signing on behalf of the Subcontractor \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature of the person named above \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_

Countersignature of authorized representative of the Supplier:

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date signed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_

Section IX - Special Conditions of Contract

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**Special Conditions of Contract**

The following Special Conditions of Contract (SCC) shall supplement or amend the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions of the SCC shall prevail over those in the General Conditions of Contract. For the purposes of clarity, any referenced GCC clause numbers are indicated in the left column of the SCC.

A. Contract and Interpretation

Definitions (GCC Clause 1)

|  |  |
| --- | --- |
| GCC 1.1 (a) (ix) | The applicable edition of the Procurement Regulation is dated: **July 2016, revised November 2017 and August 2018** |
| GCC 1.1 (b) (i) | The Purchaser is: **Ministry of Transport and Communications**  The beneficiary is: **Customs Administration (CA)** |
| GCC 1.1 (b) (ii) | The Project Manager is: **Harita Pandovska**, WBTTFP Project Director  and **CA responsible personnel**; |
| GCC 1.1 (e) (i) | The Purchaser’s Country is: **Republic of North Macedonia** |
| GCC 1.1 (e) (x) | There are no Special Conditions associated with GCC 1.1 (e) (x). |
| GCC 1.1 (e) (xiii) | The Post-Warranty Services Period is: **not applicable** |

Notices ( GCC Clause 4)

|  |  |
| --- | --- |
| GCC 4.3 | Address of the Project Manager:  Street Address: Crvena Skopska Opstina, No. 4, 1000 Skopje  Floor/ Room number: 5th floor  City: Skopje  ZIP Code: 1000  Country: Republic of North Macedonia  Telephone: + 389 (0)2 3145 531;  Electronic mail addresses: [harita.pandovska@piu.mtc.gov.mk](mailto:harita.pandovska@piu.mtc.gov.mk)  and CA responsible personnel \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

B. Subject Matter of Contract

Scope of the System ( GCC Clause 7)

|  |  |
| --- | --- |
| GCC 7.3 | The Supplier’s obligations under the Contract will include the following recurrent cost items, as identified in the Recurrent Cost tables in the Supplier’s Bid: **not applicable** |

Time for Commencement and Operational Acceptance ( GCC Clause 8)

|  |  |
| --- | --- |
| GCC 8.1 | The Supplier shall commence work on the System within:  7 (seven) **days** from the Effective Date of the Contract. |

Supplier’s Responsibilities ( GCC Clause 9)

|  |  |
| --- | --- |
| GCC 9.1 | Health and safety manual is not required. |
| GCC 9.8 | The following sustainable procurement contractual provisions, apply: **none.** |
| GCC 9.18 | The Supplier **is not required** to make security arrangements for the Project Site/s. |

C. Payment

Contract Price ( GCC Clause 11)

|  |  |
| --- | --- |
| GCC 11.2 | Adjustments to the Contract Price shall be as follows: not applicable |

Terms of Payment ( GCC Clause 12)

|  |  |
| --- | --- |
| GCC 12.1 | The Purchaser shall pay the entire Contract Price to the Supplier according to the Price Schedules of the Contract Agreement.  (a) Advance Payment  **Twenty percent (20%)** of the entire Contract Price, exclusive of all Recurrent Costs, shall be paid against receipt of a claim accompanied by the Advance Payment Security specified in GCC Clause 13.2.  (b) **Twenty percent (20%)** of the entire Contract Price will be paid against occurring of acceptance **for Line item no. 0, 1 and 2** from the Implementation Schedule Table and Supply and Installation Cost Summary Table, upon issuing of acceptance certificates and on submission and approval of appropriate invoices by the Purchaser.  (c) **Twenty percent (20%)** of the entire Contract Price will be paid against occurring of acceptance **for Line item no. 3, 4, 5, 6, 7 and 8** from the Implementation Schedule Table and Supply and Installation Cost Summary Table, upon issuing of acceptance certificates and on submission and approval of appropriate invoices by the Purchaser.  (d) **Thirty percent (30%)** of the entire Contract Price will be paid against occurring of acceptance **for Line item no. 9, 10, 11, 12, 13 and 14** from the Implementation Schedule Table and Supply and Installation Cost Summary Table, upon issuing of acceptance certificates and on submission and approval of appropriate invoices by the Purchaser.  (e) Complete System Integration – Operational Acceptance:  **Ten percent (10%)** of the total Contract Price, will be paid against occurring of acceptance **for Line item no. 15,** as final payment against **Operational Acceptance of the System as an integrated whole,** after issuing of Operational acceptance certificates and submission and approval of appropriate invoice by the Purchaser.  (f) Recurrent Costs: **not applicable** |
| GCC 12.3 | The Purchaser shall pay to the Supplier interest on the delayed payments at a rate of: **0.75%** per annum. |
| GCC 12.4 | The Supplier will invoice the Purchaser in the currency used in the Contract Agreement and the Price Schedules it refers to. |

Securities ( GCC Clause 13)

|  |  |
| --- | --- |
| GCC 13.3.1 | The Performance Security shall be denominated in **EURO** for an amount equal to 10% (ten**)** percent of the Contract Price, excluding any Recurrent Costs. |
| GCC 13.3.4 | During the Warranty Period (i.e., after Operational Acceptance of the System), the Performance Security shall be reduced to 5% (five**)** percent of the Contract Price, excluding any Recurrent Costs. |

D. Intellectual Property

Copyright (GCC Clause 15)

|  |  |
| --- | --- |
| GCC 15.3 | There are no Special Conditions of Contract applicable to GCC Clause 15.3 |
| GCC 15.4 | There are no Special Conditions of Contract applicable to GCC Clause 15.4 |
| GCC 15.5 | There are no Special Conditions of Contract applicable to GCC Clause 15.5 |

Software License Agreements (GCC Clause 16)

|  |  |
| --- | --- |
| GCC 16.1 (a) (iv) | **Use of the software shall be subject to the following additional restrictions:**   * The Purchaser shall have the right to define unlimited number of System Users for access to any NSW system module. * In case of commercial off the shelf (COTS) based NSW modules, only licensed number of Users will be able to use relevant NSW modules simultaneously. There won’t be a licensing obligation for custom developed software modules and the source code of custom developed software will be delivered to the Purchaser with all related documentation and digital media. * User licenses shall be perpetual, with fixed price, and not have any other restrictions other than restrictions explicitly set forth herein. There shouldn’t be any additional charges and other restrictions related to software licenses during or after the completion of warranty period. * The Purchaser may request additional perpetual user licenses during the warranty or post warranty periods, if necessary. For these additional licenses, the rates (unit prices) as specified in the Supplier’s financial proposal will be used. For such additional procurement a separate contract will be signed. * User licenses should be applicable to all modules without any restriction to provide maximum flexibility for user access to perform all System related tasks. |
| GCC 16.1 (b) (vi) | The Software license shall permit the Software to be disclosed to and reproduced for use (including a valid sublicense) by: support service suppliers or their subcontractors, exclusively for such suppliers or subcontractors in the performance of their support service contracts. |
| GCC 16.1 (b) (vii) | In addition to the persons specified in GCC Clause 16.1 (b) (vi), the Software may be disclosed to, and reproduced for use by the persons selected by **Customs Administration, subject to the same restrictions as is set forth in this Contract.** |
| GCC 16.2 | The Supplier’s right to audit the Standard Software will be subject to the following terms:  The Purchaser will make available to the Supplier within 10 (ten) days of a written request accurate and up-to-date records of the number and location of copies, the number of authorized users, or any other relevant data required to demonstrate use of the Standard Software as per the license agreement. |

Confidential Information ( GCC Clause 17)

|  |  |
| --- | --- |
| GCC 17.1 | There are no Special Conditions of Contract applicable to GCC Clause 17.1 |

E. Supply, Installation, Testing, Commissioning, and Acceptance of the System

Representatives (GCC Clause 18)

|  |  |
| --- | --- |
| GCC 18.1 | The Purchaser’s Project Manager shall have the following additional powers and / or limitations to his or her authority to represent the Purchaser in matters relating to the Contract:  **Approve all changes in the Supplier’s Staffing Plan, and the replacement of Supplier’s team members, partners, or sub-contractors.** |
| GCC 18.2.2 | There are no Special Conditions of Contract applicable to GCC Clause 18.2.2 |

Project Plan (GCC Clause 19)

|  |  |
| --- | --- |
| GCC 19.1 | **Chapters in the Project Plan shall address the following subject:**   1. Project Organization and Management Sub-Plan, including management authorities, responsibilities, and contacts, validation of requirements for hardware purchase and software development, as well as task, time and resource-bound schedules (in GANTT format); 2. Implementation Sub-Plan (including all phases of software design, development and implementation); 3. Delivery and Installation Sub-Plan for hardware; 4. Training Sub-Plan; 5. Testing and Quality Assurance Sub-Plan (for all software and hardware components); 6. Warranty Defect Repair and Technical Support Service Sub-Plan |
| GCC 19.6 | **The Supplier shall submit to the Purchaser:**  **(i) monthly inspection and quality assurance reports**  **(ii) monthly training participants test results**  **(iii) monthly log of service calls and problem resolutions** |

Design and Engineering ( GCC Clause 21)

|  |  |
| --- | --- |
| GCC 21.3.1 | The Supplier shall prepare and furnish to the Project Manager the following documents for which the Supplier must obtain the Project Manager’s approval before proceeding with work on the System or any Subsystem covered by the documents.   1. Final Project Plan 2. Conceptual System Design 3. Functional Specification of NSW system 4. Technical Specification of NSW system 5. Final Test and Implementation Plan 6. Warranty Defect Repair and Technical Support Service Plan 7. All other documents that derived from GCC 19.1 |

Product Upgrades ( GCC Clause 23)

|  |  |
| --- | --- |
| GCC 23.4 | **The Supplier shall provide the Purchaser with all new versions, releases, and updates to all Standard Software during the Warranty Period, for free, as specified in the GCC.** |

Inspections and Tests ( GCC Clause 25)

|  |  |
| --- | --- |
| GCC 25 | **The inspections and tests shall be:**  All tests must be described in the test plan documents and performed on dedicated test environment provided by the Contractor. The Contractor shall prepare the testing environment in a clean and efficient manner and it must ensure that all prerequisites for the successful completion of the tests are met. The Contractor shall provide any necessary assistance in the implementation of all tests under the supervision of authorised representatives of the Purchaser.  The tests of the System must include at least the following:  - General check of the overall system  - Hardware system check  - Software system check  - Checks of the central management system  The results of the tests will be reported in the Testing and Acceptance Report where, for each test, the following information shall be provided:  • Reference to the test;  • Results;  • Description of encountered anomalies;  • Name and signature of the Purchaser and the Supplier and/or designated representative(s). |

Commissioning and Operational Acceptance ( GCC Clause 27)

|  |  |
| --- | --- |
| GCC 27.2.1 | There are no Special Conditions of Contract applicable to GCC Clause 27.2.1. |

F. Guarantees and Liabilities

Operational Acceptance Time Guarantee ( GCC Clause 28)

|  |  |
| --- | --- |
| GCC 28.2 | There are no Special Conditions of Contract applicable to GCC Clause 28.2. |
| GCC 28.3 | There are no Special Conditions of Contract applicable to GCC Clause 28.3. |

Defect Liability ( GCC Clause 29)

|  |  |
| --- | --- |
| GCC 29.1 | There are no Special Conditions of Contract applicable to GCC Clause 29.1. |
| GCC 29.4 | **The Warranty Period shall begin from the date of Operational Acceptance of the NSW System, and shall extend for thirty-six (36) months.** |
| GCC 29.10 | There are no Special Conditions of Contract applicable to GCC Clause 29.10 |

Functional Guarantees ( GCC Clause 30)

|  |  |
| --- | --- |
| GCC 30 | There are no Special Conditions of Contract applicable to GCC Clause 30. |

G. Risk Distribution

Insurances ( GCC Clause 37)

|  |  |
| --- | --- |
| GCC 37.1 (c) | The Supplier shall obtain Third-Party Liability Insurance in the amount of **five hundred thousand E**uros (EUR 500,000) with deductible limits of no more than five thousand **E**uros (EUR 5,000). The insured Party shall be **Beneficiary** - **Custom Administration**. The Insurance shall cover the period from the date of Contract Effectiveness until the date of Contract Completion. |
| GCC 37.1 (e) | There are no Special Conditions of Contract applicable to GCC Clause 37.1 (e). |

H. Change in Contract Elements

Changes to the System (GCC Clause 39)

|  |  |
| --- | --- |
| GCC 39.4 | Value Engineering  The Purchaser **will not** consider a Value Engineering Proposal. |

I. Settlement of Disputes

Settlement of Disputes (GCC Clause 43)

|  |  |
| --- | --- |
| GCC 43.1.4 | The Appointing Authority for the Adjudicator is: not applicable. |
| GCC 43.2.3 | If the Supplier is from outside the Purchaser’s Country arbitration proceedings shall be conducted in accordance with the rules of arbitration of: **UNCITRAL** / **the International Chamber of Commerce (ICC).** These rules, in the version in force at the time of the request for arbitration, will be deemed to form part of this Contract.  If the Supplier is a national of the Purchaser’s Country, any dispute between the Purchaser and a Supplier arising in connection with the present Contract shall be referred to arbitration in accordance with the laws of the Purchaser’s country. |

Section X - Contract Forms

## Notes to the Purchaser on preparing the Contract Forms

Performance Security: Pursuant to GCC Clause 13.3, the successful Bidder is required to provide the Performance Security within twenty-eight (28) days of notification of Contract award.

Advance Payment Security: Pursuant to Clause 13.2, the successful Bidder is required to provide a bank guarantee securing the Advance Payment, if the SCC related to GCC Clause 12.1 provides for an Advance Payment.

Installation and Operational Acceptance Certificates: Recommended formats for these certificates are included in this SPD. Unless the Purchaser has good reason to require procedures that differ from those recommended, or to require different wording in the certificates, the procedures and forms shall be included unchanged. If the Purchaser wishes to amend the recommended procedures and/or certificates, it may propose alternatives for the approval of the World Bank before release of the bidding document to potential Bidders.

Change Order Procedures and Forms: Similar to the Installation and Operational Acceptance Certificates, the Change Estimate Proposal, Estimate Acceptance, Change Proposal, Change Order, and related Forms should be included in the bidding document unaltered. If the Purchaser wishes to amend the recommended procedures and/or certificates, it may propose alternatives for the approval of the World Bank before release of the bidding document.

## Notes to Bidders on working with the Sample Contractual Forms

The following forms are to be completed and submitted by the successful Bidder following receipt of the Letter of Acceptance from the Purchaser: (i) Contract Agreement, with all Appendices; (ii) Performance Security; and (iii) Advance Payment Security.

• Contract Agreement: In addition to specifying the parties and the Contract Price, the Contract Agreement is where the: (i) Supplier Representative; (ii) if applicable, agreed Adjudicator and his/her compensation; and (iii) the List of Approved Subcontractors are specified. In addition, modifications to the successful Bidder’s Bid Price Schedules are attached to the Agreement. These contain corrections and adjustments to the Supplier’s bid prices to correct errors, adjust the Contract Price to reflect – if applicable - any extensions to bid validity beyond the last day of original bid validity plus 56 days, etc.

• Performance Security: Pursuant to GCC Clause 13.3, the successful Bidder is required to provide the Performance Security in the form contained in this section of these bidding documents and in the amount specified in accordance with the SCC.

• Advance Payment Security: Pursuant to GCC Clause 13.2, the successful Bidder is required to provide a bank guarantee for the full amount of the Advance Payment - if an Advance Payment is specified in the SCC for GCC Clause 12.1 - in the form contained in this section of these bidding documents or another form acceptable to the Purchaser. If a Bidder wishes to propose a different Advance Payment Security form, it should submit a copy to the Purchaser promptly for review and confirmation of acceptability before the bid submission deadline.

The Purchaser and Supplier will use the following additional forms during Contract implementation to formalize or certify important Contract events: (i) the Installation and Operational Acceptance Certificates; and (ii) the various Change Order forms. These and the procedures for their use during performance of the Contract are included in the bidding documents for the information of Bidders.

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Notification of Intention to Award

*[This Notification of Intention to Award shall be sent to each Bidder that submitted a Bid.]*

*[Send this Notification to the Bidder’s Authorized Representative named in the Bidder Information Form]*

For the attention of Bidder’s Authorized Representative

Name: *[insert* ***Authorized Representative’s name****]*

Address: *[insert* ***Authorized Representative’s Address****]*

Telephone/Fax numbers: *[insert* ***Authorized Representative’s telephone/fax numbers****]*

Email Address: *[insert* ***Authorized Representative’s email addres****s]*

*[IMPORTANT: insert the date that this Notification is transmitted to all participating Bidders. The Notification must be sent to all Bidders simultaneously. This means on the same date and as close to the same time as possible.]*

DATE OF TRANSMISSION: This Notification is sent by: *[specify* ***email*** */* ***fax****]* on *[specify* ***date****]* (local time)

**Notification of Intention to Award**

Purchaser:*[insert* ***the name of the Purchaser****]*

Project:*[insert* ***name of project****]*

Contract title:*[insert the* ***name of the contract****]*

Country:*[insert* ***country where RFB is issued****]*

Loan No. /Credit No. / Grant No.: *[insert* ***reference number for loan/credit/grant****]*

RFB No:*[insert RFB* ***reference number from Procurement Plan****]*

This Notification of Intention to Award (Notification) notifies you of our decision to award the above contract. The transmission of this Notification begins the Standstill Period. During the Standstill Period you may:

1. request a debriefing in relation to the evaluation of your Bid, and/or
2. submit a Procurement-related Complaint in relation to the decision to award the contract.
3. **The successful Bidder**

|  |  |
| --- | --- |
| Name: | [*insert name* *of successful Bidder*] |
| Address: | [*insert address* *of the successful Bidder*] |
| Contract price: | [*insert contract price* *of the successful Bidder*] |
| Total combined score: | [*insert the total combined score of the successful Bidder*] |

1. **Other Bidders** *[INSTRUCTIONS: insert names of all Bidders that submitted a Bid. If the Bid’s price was evaluated include the evaluated price as well as the Bid price as read out.]*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name of Bidder | Technical Score  (If applicable) | Bid price | Evaluated Bid Cost | Combined Score (if applicable) |
| [*insert name*] | [*insert Technical score*] | [*insert Bid price*] | [*insert evaluated cost*] | [*insert combined score*] |
| [*insert name*] | [*insert Technical score*] | [*insert Bid price*] | [*insert evaluated cost*] | [*insert combined score*] |
| [*insert name*] | [*insert Technical score*] | [*insert Bid price*] | [*insert evaluated cost*] | [*insert combined score*] |

1. **Reason/s why your Bid was unsuccessful** *[Delete if the combined score already reveals the reason]*

|  |
| --- |
| *[INSTRUCTIONS; State the reason/s why this Bidder’s Bid was unsuccessful. Do NOT include: (a) a point by point comparison with another Bidder’s Bid or (b) information that is marked confidential by the Bidder in its Bid.]* |

1. **How to request a debriefing**

|  |
| --- |
| DEADLINE: The deadline to request a debriefing expires at midnight on *[insert date]* (local time).  You may request a debriefing in relation to the results of the evaluation of your Bid. If you decide to request a debriefing your written request must be made within three (3) Business Days of receipt of this Notification of Intention to Award.  Provide the contract name, reference number, name of the Bidder, contact details; and address the request for debriefing as follows:  Attention: [*insert full name of person, if applicable*]  Title/position: [*insert title/position*]  Agency: [*insert name of Purchaser*]  Email address: [*insert email address*]  Fax number: [*insert fax number or state “not applicable”*]  If your request for a debriefing is received within the 3 Business Days deadline, we will provide the debriefing within five (5) Business Days of receipt of your request. If we are unable to provide the debriefing within this period, the Standstill Period shall be extended by five (5) Business Days after the date that the debriefing is provided. If this happens, we will notify you and confirm the date that the extended Standstill Period will end.  The debriefing may be in writing, by phone, video conference call or in person. We shall promptly advise you in writing how the debriefing will take place and confirm the date and time.  If the deadline to request a debriefing has expired, you may still request a debriefing. In this case, we will provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of the Contract Award Notice. |

1. **How to make a complaint**

|  |
| --- |
| DEADLINE: The deadline for submitting a Procurement-related Complaint challenging the decision to award the contract expires on midnight, *[insert date]* (local time).  Provide the contract name, reference number, name of the Bidder, contact details; and address the Procurement-related Complaint as follows:  Attention: [*insert full name of person, if applicable*]  Title/position: [*insert title/position*]  Agency: [*insert name of Purchaser*]  Email address: [*insert email address*]  Fax number: [*insert fax number or state “not applicable”*]  At this point in the procurement process, you may submit a Procurement-related Complaint challenging the decision to award the contract. You do not need to have requested, or received, a debriefing before making this complaint. Your complaint must be submitted within the Standstill Period and received by us before the Standstill Period ends.  For more information see the “[Procurement Regulations for IPF Borrowers](https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=4005) (Procurement Regulations) (Annex III).” You should read these provisions before preparing and submitting your complaint. In addition, the World Bank’s Guidance “[How to make a Procurement-related Complaint](file:///F:\2.%20%20World%20Bank%202017\17.%20Tools%20and%20Templates\NIA\get%20the%20address%20once%20it%20is%20published)” provides a useful explanation of the process, as well as a sample letter of complaint.  In summary, there are four essential requirements:   1. You must be an ‘interested party’. In this case, that means a Bidder who submitted a Bid in this procurement, and is the recipient of a Notification of Intention to Award. 2. The complaint can only challenge the decision to award the contract. 3. You must submit the complaint within the deadline stated above. 4. You must include, in your complaint, all of the information required by the Procurement Regulations (as described in Annex III). |

1. **Standstill Period**

|  |
| --- |
| DEADLINE: The Standstill Period is due to end at midnight on *[insert date]* (local time).  The Standstill Period lasts ten (10) Business Days after the date of transmission of this Notification of Intention to Award.  The Standstill Period may be extended. This may happen where we are unable to provide a debriefing within the five (5) Business Day deadline. If this happens we will notify you of the extension. |

If you have any questions regarding this Notification please do not hesitate to contact us.

On behalf of the Purchaser:

**Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Title/position: [*insert* ***title/position***]

Agency: [*insert* ***name of Purchaser***]

Email address: [*insert* ***email address***]

Telephone number: [insert ***telephone number****]*

Beneficial Ownership Disclosure Form

*INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE FORM*

*This Beneficial Ownership Disclosure Form (“Form”) is to be completed by the successful Bidder. In case of joint venture, the Bidder must submit a separate Form for each member. The beneficial ownership information to be submitted in this Form shall be current as of the date of its submission.*

*For the purposes of this Form, a Beneficial Owner of a Bidder is any natural person who ultimately owns or controls the Bidder by meeting one or more of the following conditions:*

* *directly or indirectly holding 25% or more of the shares*
* *directly or indirectly holding 25% or more of the voting rights*
* *directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder*

RFB No.: *[insert number of RFB process]*

Request for Bid No.: *[insert* ***identification****]*

To: **[***insert* ***complete name of Purchaser*]**

In response to your request in the Letter of Acceptance *dated [insert date of letter of Acceptance]* to furnish additional information on beneficial ownership: *[select one option as applicable and delete the options that are not applicable]*

(i) we hereby provide the following beneficial ownership information.

Details of beneficial ownership

|  |  |  |  |
| --- | --- | --- | --- |
| Identity of Beneficial Owner | Directly or indirectly holding 25% or more of the shares  (Yes / No) | Directly or indirectly holding 25 % or more of the Voting Rights  (Yes / No) | Directly or indirectly having the right to appoint a majority of the board of the directors or an equivalent governing body of the Bidder  (Yes / No) |
| *[include full name (last, middle, first), nationality, country of residence]* |  |  |  |

***OR***

(ii) *We declare that there is no Beneficial Owner meeting one or more of the following conditions:*

* directly or indirectly holding 25% or more of the shares
* directly or indirectly holding 25% or more of the voting rights
* directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder

**OR**

*(iii) We declare that we are unable to identify any Beneficial Owner meeting one or more of the following conditions. [If this option is selected, the Bidder shall provide explanation on why it is unable to identify any Beneficial Owner]*

* directly or indirectly holding 25% or more of the shares
* directly or indirectly holding 25% or more of the voting rights
* directly or indirectly having the right to appoint a majority of the board of directors or equivalent governing body of the Bidder]”

Name of the Bidder: \*[*insert* ***complete name of the Bidder***]

Name of the person duly authorized to sign the Bid on behalf of the Bidder: \*\**[insert* ***complete name of person duly authorized to sign the Bid****]*

Title of the person signing the Bid: [*insert* ***complete title of the person signing the Bid***]

Signature of the person named above:

Date signed *[insert* ***ordinal number****]* day of *[insert* ***month****]*, *[insert* ***year****]*

\* In the case of the Bid submitted by a Joint Venture specify the name of the Joint Venture as Bidder. In the event that the Bidder is a joint venture, each reference to “Bidder” in the Beneficial Ownership Disclosure Form (including this Introduction thereto) shall be read to refer to the joint venture member.

\*\* Person signing the Bid shall have the power of attorney given by the Bidder. The power of attorney shall be attached with the Bid Schedules.

Letter of Acceptance

Purchaser:*[insert* ***the name of the Purchaser****]*

Project:*[insert* ***name of project****]*

Contract title:*[insert the* ***name of the contract****]*

Country:*[insert* ***country where RFB is issued****]*

Loan No. /Credit No. / Grant No.: *[insert* ***reference number for loan/credit/grant****]*

RFB No:*[insert RFB* ***reference number from Procurement Plan****]*

Date: *[insert* ***Date****]*

To: *[insert* ***Name of Bidder****]*

This is to notify you that your Bid dated *[insert* ***Date****]* for execution of the *[insert* ***brief description of the Information System****]* for the Contract Price in the aggregate of *[insert* ***amount in figures]*** (*[insert* ***amount in words****]*), as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish (i) the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose one of the Performance Security Form*s* and (ii) the additional information on beneficial ownership in accordance with BDS ITB 47.1 within eight (8) Business days using the Beneficial Ownership Disclosure Form, included in Section X, - Contract Forms, of the Bidding Document.

Authorized Signature:

Name and Title of Signatory: *[insert* ***Name and Title****]*

Name of Agency: *[insert* ***Purchaser Name****]*

Attachment: Contract Agreement

1. Contract Agreement

THIS CONTRACT AGREEMENT is made

the [ insert: ordinal number ] day of [ insert: month ], [ insert: year ].

BETWEEN

(1) [ insert: Name of Purchaser ],a[ insert: description of type of legal entity, for example, an agency of the Ministry of . . . ] of the Government of [ insert: country of Purchaser ], or corporation incorporated under the laws of [ insert: country of Purchaser ] and having its principal place of business at [ insert: address of Purchaser ] (hereinafter called “the Purchaser”), and

(2) [ insert: name of Supplier], a corporation incorporated under the laws of [ insert: country of Supplier] and having its principal place of business at [ insert: address of Supplier ] (hereinafter called “the Supplier”).

WHEREAS the Purchaser desires to engage the Supplier to supply, install, achieve Operational Acceptance of, and support the following Information System [ insert: brief description of the Information System ](“the System”), and the Supplier has agreed to such engagement upon and subject to the terms and conditions appearing below in this Contract Agreement.

NOW IT IS HEREBY AGREED as follows:

|  |  |
| --- | --- |
| Article 1.   Contract Documents | 1.1 Contract Documents (Reference GCC Clause 1.1 (a) (ii))  The following documents shall constitute the Contract between the Purchaser and the Supplier, and each shall be read and construed as an integral part of the Contract: |
|  | (a) This Contract Agreement and the Appendices attached to the Contract Agreement  (b) Special Conditions of Contract  (c) General Conditions of Contract  (d) Technical Requirements (including Implementation Schedule)  (e) The Supplier’s bid and original Price Schedules  (f) Code of Conduct for Supplier’s Personnel  (g) [ Add here: any other documents ] |
|  | 1.2 Order of Precedence (Reference GCC Clause 2)  In the event of any ambiguity or conflict between the Contract Documents listed above, the order of precedence shall be the order in which the Contract Documents are listed in Article 1.1 (Contract Documents) above, provided that Appendix 7 shall prevail over all provisions of the Contract Agreement and the other Appendices attached to the Contract Agreement and all the other Contract Documents listed in Article 1.1 above.  1.3 Definitions (Reference GCC Clause 1)  Capitalized words and phrases used in this Contract Agreement shall have the same meanings as are ascribed to them in the General Conditions of Contract. |
| Article 2.   Contract Price and Terms of Payment | 2.1 Contract Price (Reference GCC Clause 1.1(a)(viii) and GCC Clause 11)  The Purchaser hereby agrees to pay to the Supplier the Contract Price in consideration of the performance by the Supplier of its obligations under the Contract. The Contract Price shall be the aggregate of: [ insert: amount of foreign currency A in words ],[insert: amount in figures ],plus[ insert: amount of foreign currency B in words ],[insert: amount in figures ], plus [ insert: amount of foreign currency C in words ], [insert: amount in figures ], [ insert: amount of local currency in words ], [ insert: amount in figures ], as specified in the Grand Summary Price Schedule.  The Contract Price shall be understood to reflect the terms and conditions used in the specification of prices in the detailed price schedules, including the terms and conditions of the associated Incoterms, and the taxes, duties and related levies if and as identified. |
| Article 3.   Effective Date for Determining Time for Operational Acceptance | 3.1 Effective Date (Reference GCC Clause 1.1 (e) (ix))  The time allowed for supply, installation, and achieving Operational Acceptance of the System shall be determined from the date when all of the following conditions have been fulfilled:  (a) This Contract Agreement has been duly executed for and on behalf of the Purchaser and the Supplier;  (b) The Supplier has submitted to the Purchaser the performance security and the advance payment security, in accordance with GCC Clause 13.2 and GCC Clause 13.3; |
|  | (c) The Purchaser has paid the Supplier the advance payment, in accordance with GCC Clause 12;  Each party shall use its best efforts to fulfill the above conditions for which it is responsible as soon as practicable.  3.2 If the conditions listed under 3.1 are not fulfilled within two (2) months from the date of this Contract Agreement because of reasons not attributable to the Supplier, the parties shall discuss and agree on an equitable adjustment to the Contract Price and the Time for Achieving Operational Acceptance and/or other relevant conditions of the Contract. |
| Article 4.   Appendixes | 4.1 The Appendixes listed below shall be deemed to form an integral part of this Contract Agreement. |
|  | 4.2 Reference in the Contract to any Appendix shall mean the Appendixes listed below and attached to this Contract Agreement, and the Contract shall be read and construed accordingly. |

APPENDIXES

Appendix 1. Supplier’s Representative

Appendix 2. Adjudicator *[if there is no Adjudicator, state* ***“not applicable”****]*

Appendix 3. List of Approved Subcontractors

Appendix 4. Categories of Software

Appendix 5. Custom Materials

Appendix 6. Revised Price Schedules (if any)

Appendix 7. Minutes of Contract Finalization Discussions and Agreed-to Contract Amendments

IN WITNESS WHEREOF the Purchaser and the Supplier have caused this Agreement to be duly executed by their duly authorized representatives the day and year first above written.

For and on behalf of the Purchaser

Signed:

in the capacity of [ insert: title or other appropriate designation ]

in the presence of

For and on behalf of the Supplier

Signed:

in the capacity of [ insert: title or other appropriate designation ]

in the presence of

CONTRACT AGREEMENT

dated the [ insert: number ]day of [ insert: month ], [ insert: year ]

BETWEEN

[ insert: name of Purchaser ],“the Purchaser”

and

[ insert: name of Supplier ], “the Supplier”

Appendix 1. Supplier’s Representative

In accordance with GCC Clause 1.1 (b) (iv), the Supplier’s Representative is:

Name: [ insert: name and provide title and address further below, or state “to be nominated within fourteen (14) days of the Effective Date” ]

Title: [ if appropriate, insert: title ]

In accordance with GCC Clause 4.3, the Supplier's addresses for notices under the Contract are:

Address of the Supplier's Representative: [ as appropriate, insert: personal delivery, postal, cable, facsimile, electronic mail, and/or EDI addresses. ]

Fallback address of the Supplier: [ as appropriate, insert: personal delivery, postal, cable, facsimile, electronic mail, and/or EDI addresses. ]

Appendix 2. Adjudicator

In accordance with GCC Clause 1.1 (b) (vi), the agreed-upon Adjudicator is:

Name: [ insert: name ]

Title: [ insert: title ]

Address: [ insert: postal address ]

Telephone: [ insert: telephone ]

In accordance with GCC Clause 43.1.3, the agreed-upon fees and reimbursable expenses are:

Hourly Fees: [ insert: hourly fees ]

Reimbursable Expenses: [ list: reimbursables ]

Pursuant to GCC Clause 43.1.4, if at the time of Contract signing, agreement has not been reached between the Purchaser and the Supplier, an Adjudicator will be appointed by the Appointing Authority named in the SCC.

Appendix 3. List of Approved Subcontractors

The Purchaser has approved use of the following Subcontractors nominated by the Supplier for carrying out the item or component of the System indicated. Where more than one Subcontractor is listed, the Supplier is free to choose between them, but it must notify the Purchaser of its choice sufficiently in advance of the time when the subcontracted work needs to commence to give the Purchaser reasonable time for review. In accordance with GCC Clause 20.1, the Supplier is free to submit proposals for Subcontractors for additional items from time to time. No subcontracts shall be placed with any such Subcontractors for additional items until the Subcontractors have been approved in writing by the Purchaser and their names have been added to this list of Approved Subcontractors, subject to GCC Clause 20.3.

[ specify: item, approved Subcontractors, and their place of registration that the Supplier proposed in the corresponding attachment to its bid and that the Purchaser approves that the Supplier engage during the performance of the Contract. Add additional pages as necessary. ]

|  |  |  |
| --- | --- | --- |
| Item | Approved Subcontractors | Place of Registration |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Appendix 4. Categories of Software

The following table assigns each item of Software supplied and installed under the Contract to one of the three categories: (i) System Software, (ii) General-Purpose Software, or (iii) Application Software; and to one of the two categories: (i) Standard Software or (ii) Custom Software and to one of the two categories: (i) Proprietary or (ii) Open Source.

|  | (select one per title) | | | (select one per title) | | (select one per title) | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Title | System | General-Purpose | Application | Standard | Custom | Proprietary | Open Source |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
| [insert Title] |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

Appendix 5. Custom Materials

The follow table specifies the Custom Materials the Supplier will provide under the Contract.

|  |
| --- |
| Custom Materials |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
| *[insert* ***Title and description****]* |
|  |

Appendix 6. Revised Price Schedules

The attached Revised Price Schedules (if any) shall form part of this Contract Agreement and, where differences exist, shall supersede the Price Schedules contained in the Supplier’s Bid. These Revised Price Schedules reflect any corrections or adjustments to the Supplier’s bid price, pursuant to the ITB Clauses 30.3 and 38.2.

Appendix 7. Minutes of Contract Finalization Discussions and Agreed-to Contract Amendments

The attached Contract amendments (if any) shall form part of this Contract Agreement and, where differences exist, shall supersede the relevant clauses in the GCC, SCC, Technical Requirements, or other parts of this Contract as defined in GCC Clause 1.1 (a) (ii).

2. Performance and Advance Payment Security Forms

2.1 Performance Security Form (Bank Guarantee)

**(Bank Guarantee)**

*[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]*

*[Guarantor letterhead or SWIFT identifier code]*

*[insert:* ***Bank’s Name, and Address of Issuing Branch or Office****]*

Beneficiary: *[insert:* ***Name and Address of Purchaser****]*

Date: *[insert:* ***date****]*

PERFORMANCE GUARANTEE No.: *[insert:* ***Performance Guarantee Number****]*

Guarantor: *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that on *[insert:* ***date of award****]* you awarded Contract No. *[insert:* ***Contract number****]* for *[insert:* ***title and/or brief description of the Contract****]* (hereinafter called "the Contract") to *[insert:* ***complete name of Supplier which in the case of a joint venture shall be in the name of the joint venture****]* (hereinafter called "the Applicant"). Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor hereby irrevocably undertake to pay you any sum(s) not exceeding *[insert:* ***amount(s)****[[15]](#footnote-16)* ***in figures and words****]* such sum being payable in the types and proportions of currencies which the Contract Price is payableupon receipt by us of the Beneficiary’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the contract without the Beneficiary needing to prove or to show grounds or reasons for their demand or the sum specified therein.

On the date of your issuing, to the Supplier, the Operational Acceptance Certificate for the System, the value of this guarantee will be reduced to any sum(s) not exceeding *[insert:* ***amount(s) in figures and words****].* This remaining guarantee shall expire no later than *[insert:* ***number*** *and select:* ***of months/of years*** *(of the Warranty Period that needs to be covered by the remaining guarantee)]* from the date of the Operational Acceptance Certificate for the System,*[[16]](#footnote-17)* and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under 15 (a) is hereby excluded.

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*[Signature(s)]*

*[****Note****: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]*

2.2 Advance Payment Security  
Bank Guarantee

*[Guarantor letterhead or SWIFT identifier code]*

Beneficiary: *[insert:* ***Name and Address of Purchaser****]*

Date: *[****insert date of issue****]*

ADVANCE PAYMENT GUARANTEE No.: *[insert:* ***Advance Payment Guarantee Number****]*

Guarantor:  *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that on *[insert:* ***date of award****]* you awarded Contract No. *[insert:* ***Contract number****]* for *[insert:* ***title and/or brief description of the Contract****]* (hereinafter called "the Contract") to *[insert:* ***complete name of Supplier, which in the case of a joint venture shall be the name of the joint venture****]* (hereinafter called "the Applicant").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum of [insert: amount in numbers and words, for each currency of the advance payment] is to be made to the Supplier against an advance payment guarantee.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert* ***amount in figures****]   
([insert* ***amount in words****])[[17]](#footnote-18)1* upon receipt by us of the Beneficiary’s complying demand supported by the Beneficiary’s statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating either that the Applicant:

* + 1. has used the advance payment for purposes other than toward delivery of Goods; or
    2. has failed to repay the advance payment in accordance with the Contract conditions, specifying the amount which the Applicant has failed to repay.

A demand under this guarantee may be presented as from the presentation to the Guarantor of a certificate from the Beneficiary’s bank stating that the advance payment referred to above has been credited to the Applicant on its account number *[insert* ***number****]* at *[insert* ***name and address of Applicant’s bank****]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Applicant as specified in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that ninety (90) percent of the Accepted Contract Amount, has been certified for payment, or on the *[insert* ***day****]* day of *[insert* ***month****]*, *[insert* ***year****]*, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No.758, except that the supporting statement under Article 15(a) is hereby excluded.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
*[signature(s)]*

*[****Note****: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]*

3. Installation and Acceptance Certificates

3. Installation and Acceptance Certificates

3.1 Installation Certificate

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name and number of Contract ]

To: [ insert: name and address of Supplier ]

Dear Sir or Madam:

Pursuant to GCC Clause 26 (Installation of the System) of the Contract entered into between yourselves and the [ insert: name of Purchaser ](hereinafter the “Purchaser”) dated [ insert: date of Contract ], relating to the [ insert: brief description of the Information System ], we hereby notify you that the System (or a Subsystem or major component thereof) was deemed to have been correctly installed on the date specified below.

1. Description of the System (or relevant Subsystem or major component: [ insert: description ]

2. Date of Installation: [ insert: date ]

Notwithstanding the above, you are required to complete the outstanding items listed in the attachment to this certificate as soon as practicable. This letter shall not relieve you of your obligation to achieve Operational Acceptance of the System in accordance with the Contract nor of your obligations during the Warranty Period.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [ state: “Project Manager” or specify a higher level authority in the Purchaser’s organization ]

3.2 Operational Acceptance Certificate

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name of System or Subsystem and number of Contract ]

To: [ insert: name and address of Supplier ]

Dear Sir or Madam:

Pursuant to GCC Clause 27 (Commissioning and Operational Acceptance) of the Contract entered into between yourselves and the [ insert: name of Purchaser ](hereinafter the “Purchaser”) dated [ insert: date of Contract ], relating to the [ insert: brief description of the Information System ],we hereby notify you the System (or the Subsystem or major component identified below) successfully completed the Operational Acceptance Tests specified in the Contract. In accordance with the terms of the Contract, the Purchaser hereby takes over the System (or the Subsystem or major component identified below), together with the responsibility for care and custody and the risk of loss thereof on the date mentioned below.

1. Description of the System (or Subsystem or major component): [ insert: description ]

2. Date of Operational Acceptance: [ insert: date ]

This letter shall not relieve you of your remaining performance obligations under the Contract nor of your obligations during the Warranty Period.

For and on behalf of the Purchaser

Signed:

Date: *[ insert:* ***date*** *]*

in the capacity of: [ state: “Project Manager” or specify a higher level authority in the Purchaser’s organization ]

4. Change Order Procedures and Forms

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name or System or Subsystem and number of Contract ]

**General**

This section provides samples of procedures and forms for carrying out changes to the System during the performance of the Contract in accordance with GCC Clause 39 (Changes to the System) of the Contract.

**Change Order Log**

The Supplier shall keep an up-to-date Change Order Log to show the current status of Requests for Change and Change Orders authorized or pending. Changes shall be entered regularly in the Change Order Log to ensure that the log is kept up-to-date. The Supplier shall attach a copy of the current Change Order Log in the monthly progress report to be submitted to the Purchaser.

**References to Changes**

(1) Request for Change Proposals (including Application for Change Proposals) shall be serially numbered CR-nnn.

(2) Change Estimate Proposals shall be numbered CN-nnn.

(3) Estimate Acceptances shall be numbered CA-nnn.

(4) Change Proposals shall be numbered CP-nnn.

(5) Change Orders shall be numbered CO-nnn.

On all forms, the numbering shall be determined by the original CR-nnn.

**Annexes**

4.1 Request for Change Proposal Form

4.2 Change Estimate Proposal Form

4.3 Estimate Acceptance Form

4.4 Change Proposal Form

4.5 Change Order Form

4.6 Application for Change Proposal Form

4.1 Request for Change Proposal Form

(Purchaser’s Letterhead)

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name of System or Subsystem or number of Contract ]

To: [ insert: name of Supplier and address ]

Attention: [ insert: name and title ]

Dear Sir or Madam:

With reference to the above-referenced Contract, you are requested to prepare and submit a Change Proposal for the Change noted below in accordance with the following instructions within [ insert: number ] days of the date of this letter.

1. Title of Change: [ insert: title ]

2. Request for Change No./Rev.: [ insert: number ]

3. Originator of Change: [ select Purchaser / Supplier (by Application for Change Proposal), and add: name of originator ]

4. Brief Description of Change: [ insert: description ]

5. System (or Subsystem or major component affected by requested Change): [ insert: description ]

6. Technical documents and/or drawings for the request of Change:

Document or Drawing No. Description

7. Detailed conditions or special requirements of the requested Change: [ insert: description ]

8. Procedures to be followed:

(a) Your Change Proposal will have to show what effect the requested Change will have on the Contract Price.

(b) Your Change Proposal shall explain the time it will take to complete the requested Change and the impact, if any, it will have on the date when Operational Acceptance of the entire System agreed in the Contract.

(c) If you believe implementation of the requested Change will have a negative impact on the quality, operability, or integrity of the System, please provide a detailed explanation, including other approaches that might achieve the same impact as the requested Change.

(d) You should also indicate what impact the Change will have on the number and mix of staff needed by the Supplier to perform the Contract.

(e) You shall not proceed with the execution of work related to the requested Change until we have accepted and confirmed the impact it will have on the Contract Price and the Implementation Schedule in writing.

9. As next step, please respond using the Change Estimate Proposal form, indicating how much it will cost you to prepare a concrete Change Proposal that will describe the proposed approach for implementing the Change, all its elements, and will also address the points in paragraph 8 above pursuant to GCC Clause 39.2.1. Your Change Estimate Proposal should contain a first approximation of the proposed approach, and implications for schedule and cost, of the Change.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [ state: “Project Manager” or specify a higher level authority in the Purchaser’s organization  ]

4.2 Change Estimate Proposal Form

(Supplier’s Letterhead)

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name of System or Subsystem and number of Contract ]

To: [ insert: name of Purchaser and address ]

Attention: [ insert: name and title ]

Dear Sir or Madam:

With reference to your Request for Change Proposal, we are pleased to notify you of the approximate cost of preparing the below-referenced Change in accordance with GCC Clause 39.2.1 of the Contract. We acknowledge that your agreement to the cost of preparing the Change Proposal, in accordance with GCC Clause 39.2.2, is required before we proceed to prepare the actual Change Proposal including a detailed estimate of the cost of implementing the Change itself.

1. Title of Change: [ insert: title ]

2. Request for Change No./Rev.: [ insert: number ]

3. Brief Description of Change (including proposed implementation approach): [ insert: description ]

4. Schedule Impact of Change (initial estimate): [ insert: description ]

5. Initial Cost Estimate for Implementing the Change: *[insert:* ***initial cost estimate****]*

6. Cost for Preparation of Change Proposal: [ insert: cost in the currencies of the Contract ], as detailed below in the breakdown of prices, rates, and quantities.

For and on behalf of the Supplier

Signed:

Date:

in the capacity of: [ state: “Supplier’s Representative” or specify a other higher level authority in the Supplier’s organization ]

4.3 Estimate Acceptance Form

(Purchaser’s Letterhead)

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name of System or Subsystem and number of Contract ]

To: [ insert: name of Supplier and address ]

Attention:[ insert: name and title ]

Dear Sir or Madam:

We hereby accept your Change Estimate and agree that you should proceed with the preparation of a formal Change Proposal.

1. Title of Change: [ insert: title ]

2. Request for Change No./Rev.: [ insert: request number / revision ]

3. Change Estimate Proposal No./Rev.: [ insert: proposal number / revision ]

4. Estimate Acceptance No./Rev.: [ insert: estimate number / revision ]

5. Brief Description of Change: [ insert: description ]

6. Other Terms and Conditions: [ insert: other terms and conditions ]

In the event that we decide not to order the Change referenced above, you shall be entitled to compensation for the cost of preparing the Change Proposal up to the amount estimated for this purpose in the Change Estimate Proposal, in accordance with GCC Clause 39 of the General Conditions of Contract.

For and on behalf of the Purchaser

Signed:

Date:

in the capacity of: [ state: “Project Manager” or specify a higher level authority in the Purchaser’s organization ]

4.4 Change Proposal Form

(Supplier’s Letterhead)

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name of System or Subsystem and number of Contract ]

To: [ insert: name of Purchaser and address ]

Attention: [ insert: name and title ]

Dear Sir or Madam:

In response to your Request for Change Proposal No. [ insert: number ],we hereby submit our proposal as follows:

1. Title of Change: [ insert: name ]

2. Change Proposal No./Rev.: [ insert: proposal number/revision ]

3. Originator of Change: [ select: Purchaser / Supplier; and add: name]

4. Brief Description of Change: [ insert: description ]

5. Reasons for Change: [ insert: reason ]

6. The System Subsystem, major component, or equipment that will be affected by the requested Change: [ insert: description ]

7. Technical documents and/or drawings for the requested Change:

Document or Drawing No. Description

8. Estimate of the increase/decrease to the Contract Price resulting from the proposed Change: [ insert: amount in currencies of Contract ], as detailed below in the breakdown of prices, rates, and quantities.

Total lump sum cost of the Change:

Cost to prepare this Change Proposal (i.e., the amount payable if the Change is not accepted, limited as provided by GCC Clause 39.2.6):

9. Additional Time for Achieving Operational Acceptance required due to the Change: [ insert: amount in days / weeks ]

10. Effect on the Functional Guarantees: [ insert: description ]

11. Effect on the other terms and conditions of the Contract: [ insert: description ]

12. Validity of this Proposal: for a period of [ insert: number ] days after receipt of this Proposal by the Purchaser

13. Procedures to be followed:

(a) You are requested to notify us of your acceptance, comments, or rejection of this detailed Change Proposal within [ insert: number ] days from your receipt of this Proposal.

(b) The amount of any increase and/or decrease shall be taken into account in the adjustment of the Contract Price.

For and on behalf of the Supplier

Signed:

Date:

in the capacity of: [ state: “Supplier’s Representative” or specify a other higher level authority in the Supplier’s organization ]

4.5 Change Order Form

(Purchaser’s Letterhead)

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name of System or Subsystem and number of Contract ]

To: [ insert: name of Supplier and address ]

Attention: [ insert: name and title ]

Dear Sir or Madam:

We hereby approve the Change Order for the work specified in Change Proposal No. [ insert: number ], and agree to adjust the Contract Price, Time for Completion, and/or other conditions of the Contract in accordance with GCC Clause 39 of the Contract.

1. Title of Change: [ insert: name ]

2. Request for Change No./Rev.: [ insert: request number / revision ]

3. Change Order No./Rev.: [ insert: order number / revision ]

4. Originator of Change: [ select: Purchaser / Supplier; and add: name ]

5. Authorized Price for the Change:

Ref. No.: [ insert: number ] Date: [ insert: date ]

[ insert: amount in foreign currency A ] plus [ insert: amount in foreign currency B ] plus [ insert: amount in foreign currency C ] plus [ insert: amount in local currency ]

6. Adjustment of Time for Achieving Operational Acceptance: [ insert: amount and description of adjustment ]

7. Other effects, if any: [ state: “none” or insert description ]

For and on behalf of the Purchaser

Signed:

Date*: [ insert* ***date*** *]*

in the capacity of: [ state: “Project Manager” or higher level authority in the Purchaser’s organization ]

For and on behalf of the Supplier

Signed:

Date:  *[ insert* ***date*** *]*

in the capacity of: [ state “Supplier’s Representative” or specify a higher level authority in the Supplier’s organization ]

4.6 Application for Change Proposal Form

(Supplier’s Letterhead)

Date: [ insert: date ]

Loan/Credit Number: [ insert: loan or credit number from RFB ]

RFB: [ insert: title and number of RFB ]

Contract: [ insert: name of System or Subsystem and number of Contract ]

To: [ insert: name of Purchaser and address ]

Attention**:** [ insert: name and title]

Dear Sir or Madam:

We hereby propose that the below-mentioned work be treated as a Change to the System.

1. Title of Change: [ insert: name ]

2. Application for Change Proposal No./Rev.: [ insert: number / revision] dated: [ insert: date ]

3. Brief Description of Change: [ insert: description ]

4. Reasons for Change: [insert: description]

5. Order of Magnitude Estimation: [ insert: amount in currencies of the Contract ]

6. Schedule Impact of Change: [ insert: description ]

7. Effect on Functional Guarantees, if any: [ insert: description]

8. Appendix: [ insert: titles (if any); otherwise state “none”]

For and on behalf of the Supplier

Signed:

Date:

in the capacity of: [ state: “Supplier’s Representative” or specify a higher level authority in the Supplier’s organization ]

1. <https://mioa.gov.mk/sites/default/files/pbl_files/documents/Macedonian_Interoperability_Framework_MIF_v2.0.pdf> [↑](#footnote-ref-2)
2. For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder’s share, by value, and role and responsibilities shall be considered to meet this requirement. [↑](#footnote-ref-3)
3. Nonperformance, as decided by the Purchaser, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where Purchaser decision was overruled by the dispute resolution mechanism. Nonperformance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the applicant have been exhausted. [↑](#footnote-ref-4)
4. This requirement also applies to contracts executed by the Applicant as JV member. [↑](#footnote-ref-5)
5. The Bidder shall provide accurate information on the related Letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of awards against the Bidder or any member of a joint venture may result in failure of the Bid. [↑](#footnote-ref-6)
6. [↑](#footnote-ref-7)
7. For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder’s share, by value, and role and responsibilities shall be considered to meet this requirement. [↑](#footnote-ref-8)
8. The amount of the Bond shall be denominated in the currency of the *Purchaser*’s Country or the equivalent amount in a freely convertible currency. [↑](#footnote-ref-9)
9. For the avoidance of doubt, a sanctioned party’s ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract. [↑](#footnote-ref-10)
10. A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower. [↑](#footnote-ref-11)
11. Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information. [↑](#footnote-ref-12)
12. For the avoidance of doubt, a sanctioned party’s ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract. [↑](#footnote-ref-13)
13. A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower. [↑](#footnote-ref-14)
14. Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information. [↑](#footnote-ref-15)
15. *The bank shall insert the amount(s) specified and denominated in the SCC for GCC Clauses 13.3.1 and 13.3.4 respectively, either in the currency(ies) of the Contract or a freely convertible currency acceptable to the Purchaser.* [↑](#footnote-ref-16)
16. *In this sample form, the formulation of this paragraph reflects the usual SCC provisions for GCC Clause 13.3. However, if the SCC for GCC Clauses 13.3.1 and 13.3.4 varies from the usual provisions, the paragraph, and possibly the previous paragraph, need to be adjusted to precisely reflect the provisions specified in the SCC.* [↑](#footnote-ref-17)
17. 1 *The Guarantor shall insert an amount representing the amount of the advance payment and denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the Purchaser.* [↑](#footnote-ref-18)