

# **Bidding Documents for Procurement of Services**

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## **“Development of IT Software, Operations and Maintenance”**

**(Single Stage Two Envelop Procedure)**

**(National Competitive Bidding)**

**DEFENSE EXPORT PROMOTION ORGANIZATION**

**March, 2026**

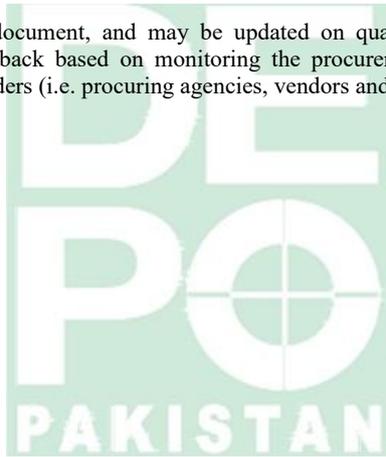
## **PREFACE**

Public Procurement is carried out in Pakistan in accordance with the provisions laid down in Public Procurement Regulatory Framework consisted of Public Procurement Ordinance - 2002; Public Procurement Rules-2004 and allied Regulations, Regulatory Guides and Guidelines.

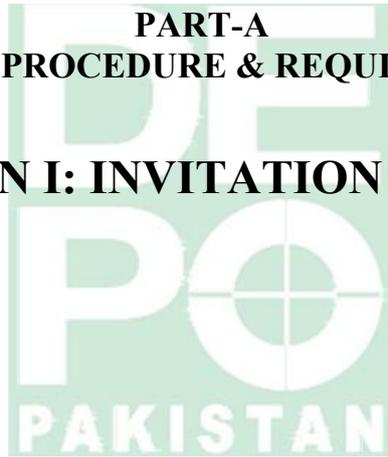
National Request for Proposal Documents are developed for standardizing the procurement procedures and practices in the procuring agencies of the Federation of Pakistan and has the status of the Regulations in terms of section 27 of the PPRA Ordinance, 2002 read with Rule-23(4) of Public Procurement Rules, 2004.

The document consists of general as well as specific provisions to be applicable for the procurement of Services. The specific provisions supplement to the general provisions and may be amended or opted by the procuring agencies in the manner and to the extent prescribed in the respective sections.

This document is a live document, and may be updated on quarterly basis considering the regulatory experience feedback based on monitoring the procurement practices and valuable suggestions of the stakeholders (i.e. procuring agencies, vendors and general public).



**PART-A**  
**BIDDING PROCEDURE & REQUIREMENTS**  
**SECTION I: INVITATION TO BIDS**



**INVITATION FOR BID**

Defence Export Promotion Organization (DEPO), hereinafter referred to as “the Procuring Agency” invites Bids from the eligible bidders as per bidding document for “Development of IT Software, Operations and Maintenance ” from companies/ firms through online Bids (E-PADS). Bidders should be registered with relevant registration authorities and tax departments/authorities. Joint Venture / Consortium is not allowed to participate. National Competitive bidding process shall be conducted online through (E-PADS).

1. The subject procurement shall be conducted in accordance with method of procurement i.e. single stage two envelope and shall be evaluated on the basis of the most advantageous bid in terms of the provisions prescribed in Public Procurement Rules, 2004, E-Pak Procurement Regulations, 2023 and any other regulations, procurement guidelines or instructions issued by the Authority (from time to time) and Bid is open to all potential Service Providers.
2. The Tender Notices/Details instructions are available on Public Procurement Regulatory Authority (PPRA) website [www.ppra.org.pk](http://www.ppra.org.pk).
3. Pre-Bid meeting will be conducted on Day 16<sup>th</sup> March 2026 at Timing: 12:00 Hours.
4. Bidding Documents can immediately be downloaded from the websites of PPRA ([www.eprocure.gov.pk](http://www.eprocure.gov.pk)) and response time shall be calculated exclusively from the date of publication of the advertisement on the website of the PPRA. This advertisement is also available on DEPO and PPRA Websites.
5. All Proposal (Technical & Financials) must be accompanied by a bid Security should be submitted with Technical Proposal/bid. Details of Bid Security and procurement estimates are given under:

Sr.	Description of Procurement (Scope of Services / TORs)	Bid Security Amount (Rs.)
1	Development of IT Software, Operations and Maintenance (Contract till December 31, 2026, Extendable For Another Two Years) Details of Scope of Services details given in the Section-V of the Bidding Document	Rs. 1,000,000 (One Million Rupees only) (Refundable)

6. All Bids (Technical & financial) for subject procurement duly completed, signed, stamped and in complete conformity with the bidding document would be required to be submitted online through E-PADS website on or before 26<sup>th</sup> March 2026 at 10:30 Hours accompanied with required documents. Technical bids will be opened at 11:00 Hours on the same day i.e. 26<sup>th</sup> March 2026 on E-PADS in the presence of the participant(s) who may choose to be present. Partial and conditional Bids/applications will be considered disqualified.
7. Interested eligible Bidders / Applicants may obtain further information from Deputy Director (Procurement), Defence Export Promotion Organization (DEPO) at the address given below.
8. Late submission of bids for procurement mentioned in bidding document and supporting documents or not conforming to the prescribed method shall be rejected straight away.
9. The Procuring Agency will not be responsible for any cost or expense incurred by bidders in connection with the preparation or delivery of bids for the services and supporting documents.
10. The Procuring Agency reserves the right to reject all bids for the subject procurement

as per Rule 33 of the PPRA Rules.

**GSO-II IDEAS**

**Address: DEPO, DEFENCE COMPLEX SECTOR E 10, ISLAMABAD**

**Contact +92-51-9262017-8 email: [info@ideaspakistan.gov.pk](mailto:info@ideaspakistan.gov.pk), website: [ideaspakistan.gov.pk](http://ideaspakistan.gov.pk)**



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**SECTION II: INSTRUCTION TO PROCUREMENT  
/ DEVELOPMENT OF IT SOFTWARE,  
OPERATIONS AND MAINTENANCE (UPTO  
DECEMBER 2028 EXTENDABLE FOR ANOTHER  
TWO YEARS)”**



## A. INTRODUCTION

<b>1. Scope of Proposal</b>	1.1	The Procuring Agency (PA), as indicated in the Bids/ <b>Proposal Data Sheet (PDS)</b> invites bids through online (E-PADS) Bids / Proposal for the provision of Development of IT Software, Operations and Maintenance ” Services specified in the PDS and <b>in Section V - Technical Specifications/TORS/Scope of work &amp; Schedule of Requirements</b> . The name, identification, and number of software’s/ deliverables are provided in the <b>PDS</b> . Open Competitive bidding using Single Stage Two Envelope procedure shall be used. The successful Procurement of Services Providers will be expected to provide the services within the specified period and timeline(s) as stated in the <b>PDS</b> .
<b>2. Source of Funds</b>	2.1	Source of funds is referred in Clause-2 of Invitation for Proposals.
<b>3. Eligible Providers</b>	3.1	A service Provider may be natural person, company or firm or public or semi-public agency of Pakistan or any foreign country, or any combination of them with a formal existing agreement (on Judicial Papers) in the form of a joint venture, consortium, or association. (Joint Venture is not allowed) In the case of a joint venture, consortium, or association, all members shall be jointly and severally liable for the execution of the Contract in accordance with the terms and conditions of the Contract. The joint venture, consortium, or association shall nominate a Lead Member as nominated in the PDS, who shall have the authority to conduct all business for and on behalf of any and all the members of the joint venture, consortium, or association during the Bidding process, and in case of award of contract, during the execution of the contract. <i>(The Joint Venture is not allowed.)</i> .
<b>Not Applicable</b>	3.2	The appointment of Lead Member in the joint venture, consortium, or association shall be confirmed by submission of a valid Power of Attorney to the Procuring Agency.
<b>Not Applicable</b>	3.3	A verifiable copy of the agreement that forms a joint venture, consortium or association shall be required to be submitted as part of the Proposal.
<b>Not applicable</b>	3.4	Any Proposal submitted by the joint venture, consortium or association shall indicate the part of the proposed contract to be performed by each party and each party shall be evaluated with respect to its contribution only, and the responsibilities of each party shall not be substantially altered without prior

		written approval of the Procuring Agency and in line with any instructions issued by the Authority.
	3.5	The invitation for proposal is open to all firms, bidder, or companies, JV not allowed, service Providers subject to any provisions of incorporation or licensing by the respective national incorporating agency or statutory body such as established for that particular trade or business.
	3.6	Service Providers must be locally registered with the appropriate national incorporating body or the statutory body, before participating in the national/ <del>international</del> competitive tendering with the exception of such procurements made by the foreign missions of Pakistan. For such purpose the Procurement of Provider must have to initiate the registration process before the Proposal submission and the necessary evidence shall be submitted to the procuring agency along with their Proposal, however, the final award will be subject to the complete registration process.
	3.7	<p>Provider shall not have a conflict of interest. All Procurement of Services Providers found to have a conflict of interest shall be disqualified. The service Provider may be considered to have a conflict of interest with one or more parties in this Bidding process, if they:</p> <ul style="list-style-type: none"> <li>a) are associated or have been associated in the past, directly or indirectly with a firm or any of its affiliates which have been engaged by the Procuring Agency to provide consulting services for the preparation of the design, specifications and other documents to be used for the procurement of the Services to be purchased under this Invitation for Proposal.</li> <li>b) have controlling shareholders in common; or</li> <li>c) receive or have received any direct or indirect subsidy from any of them; or</li> <li>d) have the same legal representative for purposes of this Proposal; or</li> <li>e) have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Proposal of another Provider, or influence the decisions of the Procuring Agency regarding this Bidding process; or</li> <li>f) Submit more than one Proposal in this Bidding process.</li> </ul>
	3.8	<p>Service Provider may be ineligible if –</p> <ul style="list-style-type: none"> <li>(a) declared bankrupt or, in the case of company or firm, insolvent;</li> <li>(b) payments in favor of the Provider is suspended in</li> </ul>

		<p>accordance with the judgment of a court of law other than a judgment declaring bankruptcy and resulting (in accordance with the national laws) in the total or partial loss of the right to administer and dispose of its property;</p> <p>(c) legal proceedings are instituted against such Provider involving an order suspending payments and which may result, in accordance with the national laws, in a declaration of bankruptcy or in any other situation entailing the total or partial loss of the right to administer and dispose of the property;</p> <p>(d) The firm Provider and contractor is blacklisted or debarred by a foreign country, international organization, or other foreign institutions for the period defined by them.</p>
	3.9	Service Provider shall provide to the Procuring Agency evidence of their eligibility, proof of compliance with the necessary legal requirements to carry out the contract effectively.
	3.10	Service Provider shall provide such evidence of their continued eligibility to the satisfaction of the Procuring Agency, as the Procuring Agency shall reasonably request.
	3.11	Service Provider shall submit proposals relating to the nature, conditions and modalities of sub-contracting wherever the sub-contracting of any elements of the contract amounting to the more than ten (10) percent of the Proposal price is envisaged.
<b>4. One Proposal per Provider</b>	4.1	Service Provider shall submit only one Proposal, in the same bidding process, either individually as a Provider or as a member in a joint venture or any similar arrangement.
	4.2	Service Provider can not sub-contractor while submitting a proposal individually in the same Bidding process.
	4.3	A person or a firm cannot be a sub-contractor with more than one service Provider in the same bidding process.
<b>5. Cost of Bidding</b>	5.1	Service Provider shall bear all costs associated with the preparation and submission of its Proposal, and the Procuring Agency shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

**B. RFB (BIDDING DOCUMENT) DOCUMENTS**

<p><b>6. Contents of Request for Proposal Document</b></p>	<p>6.1</p>	<p>The Services required, bidding procedures, and terms and conditions of the contract are prescribed in the RFB (BIDDING DOCUMENT) Documents. In addition to the Invitation for Proposal, the RFB (BIDDING DOCUMENT) documents which should be read in conjunction with any addenda issued in accordance with ITCSP 8.1 include:</p> <p><b>Section I</b> -Invitation to Proposals  <b>Section II</b> Instructions to service Providers (ITCSP)  <b>Section III</b> Proposal Data Sheet (PDS)  <b>Section IV</b> Eligible Countries  <b>Section V</b> Technical Specifications, Schedule of Requirements, Evaluation and Qualification Criteria  <b>Section VI</b> Forms – Proposal  <b>Section VII</b> General Conditions of Contract (GCC)  <b>Section VIII</b> Special Conditions of Contract (SCC)  <b>Section IX</b> Contract Forms</p>
	<p>6.2</p>	<p>The number of copies to be completed and returned with the Proposal is specified in the <b>PDS</b>.</p>
	<p>6.3</p>	<p>The Procuring Agency is not responsible for the completeness of the RFB (BIDDING DOCUMENT) documents and their addenda, if they were not obtained directly from the Procuring Agency or the signed pdf version from downloaded from the website of the Procuring Agency. However, Procuring Agency shall place both the pdf and same editable version to facilitate the Provider for filling the forms.</p>
	<p>6.4</p>	<p>Provider is expected to examine all instructions, forms, terms and specifications in the RFB (BIDDING DOCUMENT) documents. Failure to furnish all the information required in the RFB (BIDDING DOCUMENT) documents will be at the Procurement of Services Provider’s risk and may result in the rejection of his Proposal.</p>
<p><b>7. Clarification of RFB (BIDDING DOCUMENT) documents</b></p>	<p>7.1</p>	<p>A prospective Procurement of Provider requiring any clarification of the RFB documents may notify the Procuring Agency in writing Through EPADS or in electronic form that provides a record of the content of communication at the Procuring Agency's address indicated in the <b>PDS</b>.</p>
	<p>7.2</p>	<p>The Procuring Agency will within three (3) working days after receiving the request for clarification, respond in writing Through EPADS or in the electronic form to any request for clarification provided that such request is received not later than three (03) days prior to the deadline for the submission of Proposals as prescribed in <b>ITCSP 22.1</b>. However, this clause</p>

		shall not apply in the case of alternate methods of Procurement.
	7.3	Copies of the Procuring Agency's response will be forwarded to all identified Prospective service Providers through an identified source of communication, including a description of the inquiry, but without identifying its source. In case of downloading of the RFB (BIDDING DOCUMENT) document from the website of PA, the response of all such queries will also be available on the same link available at the website.
	7.4	Should the Procuring Agency deem it necessary to amend the RFB (BIDDING DOCUMENT) document as a result of a clarification, it shall do so following the procedure under <b>ITCSP 8</b> .
	7.5	If indicated <b>in the PDS</b> , the service Provider's designated representative is invited at the service Provider's cost to attend a pre-proposal meeting at the place, date and time mentioned <b>in the PDS</b> . During this pre-proposal meeting, the service Providers may request clarification of the schedule of requirement, the Evaluation Criteria or any other aspects of the RFB (BIDDING DOCUMENT) document.
	7.6	Minutes of the pre-Proposal meeting, if applicable, including the text of the questions asked by Providers, including those during the meeting (without identifying the source) and the responses given, together with any responses prepared after the meeting will be transmitted through EPAD or electronically promptly to all prospective service Providers who have obtained the RFB (BIDDING DOCUMENT) documents. Any modification to the RFB (BIDDING DOCUMENT) documents that may become necessary as a result of the pre-Proposal meeting shall be made by the Procuring Agency exclusively through the use of an Addendum pursuant to ITCSP 8. Non-attendance at the pre-Proposal meeting will not be a cause for disqualification of a Procurement of Services Provider.
<b>8. Amendment of RFB (BIDDING DOCUMENT) documents</b>	8.1	Before the deadline for submission of Proposals, the Procuring Agency for any reason, whether at its own initiative or in response to a clarification requested by a prospective Provider or pre-proposal meeting may modify the RFB (BIDDING DOCUMENT) documents by issuing addenda through EPAD.
	8.2	Any addendum issued including the notice of any extension of the deadline shall be part of the RFB (BIDDING DOCUMENT) documents pursuant to <b>ITCSP 6.1</b> and shall be communicated in writing or in any identified electronic form that provide record of the content of communication to all the

		<p>service Providers who have obtained the RFB (BIDDING DOCUMENT) documents from the Procuring Agency. The Procuring Agency shall promptly publish the Addendum at the Procuring Agency's web page identified in the PDS:</p> <p>Provider who had either already submitted their proposal or handed over the proposal to the courier prior to the issuance of any such addendum shall have the right to withdraw his already filed proposal and submit the revised proposal prior to the original or extended proposal submission deadline.</p>
	8.3	<p>To give prospective Service Providers reasonable time in which to take an addendum/corrigendum into account in preparing their Proposals, the Procuring Agency may, at its discretion, extend the deadline for the submission of Proposals:</p> <p>Provided that the Procuring Agency shall extend the deadline for submission of Proposal, if such an addendum is issued within last three (03) days of the Proposal submission deadline.</p>

**C. PREPARATION OF PROPOSALS**

<b>9. Language of Proposal</b>	9.1	<p>The Proposal prepared by the Procurement of Services Provider, as well as all correspondence and documents relating to the Proposal exchanged by the service Provider and the Procuring Agency shall be written in the English language unless otherwise specified in the PDS. Supporting documents and printed literature furnished by the Procurement of Services Provider may be in another language provided they are accompanied by an accurate translation of the relevant pages in the English language unless otherwise specified in the PDS, in which case, for purposes of interpretation of the Procurement of Services Provider, the translation shall govern.</p>
<b>10. Documents Constituting the Proposal</b>	10.1	<p>The Proposal prepared by the service Provider shall constitute the following components: -</p> <ul style="list-style-type: none"> <li>a) Form of Proposal and Proposal Prices completed in accordance with <b>ITCSP 13 and 14</b>;</li> <li>b) Details of the Sample(s) where applicable and requested in the PDS.</li> <li>c) Documentary evidence established in accordance with <b>ITCSP 12</b> that the service Provider is eligible and/or qualified for the subject bidding process;</li> <li>d) Documentary evidence established in accordance with <b>ITCSP 12.3(a)</b> that the service Provider has been</li> </ul>

		<p>authorized to provide the services in Pakistan;</p> <p>e) Documentary evidence established in accordance with <b>ITCSP 11</b> that services to be provided by the service Provider are eligible services, and conform to the RFB (BIDDING DOCUMENT) documents;</p> <p>f) Proposal security or Proposal Securing Declaration furnished in accordance with <b>ITCSP 17</b>;</p> <p>g) Any other document required in the <b>PDS</b>.</p>
<p><b>11. Documents Establishing Eligibility of the Services and Conformity to RFB (BIDDING DOCUMENT) documents</b></p>	11.1	To establish the conformity of the Non-Consulting Services to the RFB (BIDDING DOCUMENT) document, the Procurement of Services Provider shall furnish as part of its Proposal the documentary evidence that Services provided conform to the technical specifications and standards.
	11.2	Standards for the provision of the Non-Consulting Services are intended to be descriptive only and not restrictive. Provider may offer other standards of quality provided that it demonstrates, to the procuring agency's satisfaction, that the substitutions ensure substantial equivalence or are superior to those specified the Section VII, Procuring Agency's Requirements.
	11.3	The required documents and other accompanying documents must be in English. In case any other language than English is used the pertinent translation into English shall be attached to the original version.
<p><b>12. Documents Establishing Eligibility and Qualification of the Provider</b></p>	12.1	Pursuant to ITCSP 10, the service Provider shall furnish, as part of its Proposal, all those documents establishing the Services' Provider's eligibility to participate in the bidding process and/or its qualification to perform the contract if its Proposal is accepted.
	12.2	The documentary evidence of the service Provider's eligibility to Proposal shall establish to the satisfaction of the Procuring Agency that the services Provider, at the time of submission of its proposal, is from an eligible country as defined in Section-4 titled as "Eligible Countries".
	12.3	<p>The documentary evidence of the Services' Provider's qualifications to perform the contract if its Proposal is accepted shall establish to the satisfaction of Procuring Agency that:</p> <p>a) Service Provider has the financial, technical, and supply/production capability necessary to perform the Contract, meets the qualification criteria specified in <b>PDS</b>.</p>

		<p>b) in the case of a service Provider not doing business within Pakistan, service Provider is or will be (if awarded the contract) represented by an Agent in Pakistan equipped, and able to carry out the service Provider's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of Contract and/or Technical Specifications.</p> <p>c) that the service Provider meets the qualification criteria listed in the Proposal Data Sheet.</p>
<b>13. Form of Proposal</b>	13.1	The service Provider shall fill the Form of Proposal furnished in the RFB (BIDDING DOCUMENT) documents. The Proposal Form must be completed without any alterations to its format and no substitute shall be accepted.
<b>14. Proposal Prices</b>	14.1	The Proposal Prices quoted by the Provider in the Form of Proposal and in the Price Schedules shall conform to the requirements specified below in ITCSP Clause 14 or exclusively mentioned hereafter in the RFB (BIDDING DOCUMENT) documents.
	14.2	All items in the Schedule of Requirement must be listed and priced separately in the Price Schedule(s). If a Price Schedule shows items listed but not priced, their prices shall be construed to be included in the prices of other items.
	14.3	<p>Items not listed in the Price Schedule shall be assumed not to be included in the Proposal, and provided that the Proposal is still substantially responsive in their absence or due to their nominal nature, the corresponding average price of the respective item(s) of the remaining substantially responsive service Provider(s) shall be construed to be the price of those missing item(s):</p> <p>Provided that:</p> <p>a) where there is only one (substantially) responsive service" Provider, or</p> <p>b) where there is provision for alternate proposals and the respective items are not listed in the other proposals, the procuring agency may fix the price of missing items in accordance with market survey, and the same shall be considered as final price.</p>
	14.4	The Proposal price to be quoted in the Form of Proposal in accordance with <b>ITCSP 13.1</b> shall be the total price of the Proposal, excluding any discounts offered.
	14.5	The service Provider shall indicate on the appropriate Price Schedule, the unit prices (where applicable) and total Proposal price of the services it proposes to provide under the contract.
	14.6	Prices quoted by the service Provider shall be fixed during the contract" Provider's performance of the contract and not subject to variation on any account. A Proposal submitted with an adjustable price will be treated as non-responsive and shall

		be rejected, pursuant to <b>ITCSP 28</b> . The Bidder shall quote the prices in accordance with the pricing model such as pay-as-you-go or any other model specified by the procuring agency.
<b>15. Proposal Currencies</b>	15.1	Prices shall be quoted in Pakistani Rupees unless otherwise specified in the PDS.
	15.2	For the purposes of comparison of proposals quoted in different currencies, the price shall be converted into a single currency specified in the RFB (BIDDING DOCUMENT) documents. The rate of exchange shall be the selling rate, prevailing on the date of opening of (financial part of) proposals specified in the RFB (BIDDING DOCUMENT) documents, as notified by the State Bank of Pakistan on that day.
	15.3	service Providers shall indicate details of their expected foreign currency requirements in the Proposal.
<b>16. Proposal Validity Period</b>	16.1	Proposals shall remain valid for the period specified in the <b>PDS</b> after the Proposal submission deadline prescribed by the Procuring Agency. A Proposal valid for a shorter period shall be rejected by the Procuring Agency as non-responsive. The period of Proposal validity will be determined from the complementary proposal securing instrument i.e. the expiry period of proposal security or proposal securing declaration as the case may be.
	16.2	Under exceptional circumstances, prior to the expiration of the initial Proposal validity period, the Procuring Agency may request the service Providers' consent to an extension of the period of validity of their Proposals only once, for the period not more than the period of initial proposal validity. The request and the service Providers responses shall be made in writing or in electronic forms that provide record of the content of communication. The Proposal Security provided under <b>ITCSP 17</b> shall also be suitably extended. service Provider may refuse the request without forfeiting its Proposal security or causing to be executed its Proposal Securing Declaration. A service Provider agreeing to the request will not be required nor permitted to modify its Proposal, but will be required to extend the validity of its Proposal Security or Proposal Securing Declaration for the period of the extension, and in compliance with <b>ITCSP 17</b> in all respects.
	16.3	If the award is delayed by a period exceeding sixty (60) days beyond the expiry of the initial Proposal validity period, the contract price may be adjusted by a factor specified in the request for extension. However, the Proposal evaluation shall be based on the already quoted Proposal Price without taking into consideration on the above correction.
<b>17. Proposal</b>	17.1	Pursuant to <b>ITCSP 10</b> , unless otherwise specified in the <b>PDS</b> ,

<b>Security or Proposal Securing Declaration</b>		the service Provider shall furnish as part of its Proposal, a Proposal Security in form of a fixed amount not exceeding five percent of the estimated value of procurement determined by the procuring agency and in the amount and currency specified in the <b>PDS</b> or Proposal Securing Declaration as specified in the <b>PDS</b> in the format provided in <b>Section VI (Standard Forms)</b> .
	17.2	The Proposal Security or Proposal Securing Declaration is required to protect the service Provider’s conduct which would warrant the security’s forfeiture, pursuant to <b>ITCSP 17.9</b> .
	17.3	The Proposal Security shall be denominated in the local currency or in another freely convertible currency, and it shall be in the form specified in the <b>PDS</b> which shall be a Bank Draft in the name of the Procuring Agency and valid for twenty-eight (28) days beyond the end of the validity of the Proposal. This shall also apply if the period for Proposal Validity is extended. In either case, the form must include the complete name of the service Provider;
	17.4	The Proposal Security or Proposal Securing Declaration shall be in accordance with the Form of the Proposal Security or Proposal Securing Declaration included in <b>Section VI (Standard Forms)</b> or another form approved by the Procuring Agency prior to the Proposal submission.
	17.5	The Proposal Security shall be payable promptly upon written demand by the Procuring Agency in case any of the conditions listed in <b>ITCSP 17.9</b> are invoked.
	17.6	Any Proposal not accompanied by a Proposal Security or Proposal Securing Declaration in accordance with <b>ITCSP 17.1 or 17.3</b> shall be rejected by the Procuring Agency as non-responsive, pursuant to <b>ITCSP 28</b> .
	17.7	<p>Unsuccessful service Providers’ Proposal Security will be discharged or returned as promptly as possible, however in no case later than thirty (30) days after the expiration of the period of Proposal Validity prescribed by the Procuring Agency pursuant to <b>ITCSP 16</b>. The Procuring Agency shall make no claim to the amount of the Proposal Security, and shall promptly return the Proposal Security document, after whichever of the following that occurs earliest:</p> <ul style="list-style-type: none"> <li>(a) the expiry of the Proposal Security;</li> <li>(b) the entry into force of a procurement contract and the provision of a Performance Guarantee (or guarantee), for the performance of the contract if such a security (or guarantee), is required by the Proposal documents;</li> </ul>

		<p>(c) the rejection by the Procuring Agency of all Proposals;</p> <p>(d) the withdrawal of the Proposal prior to the deadline for the submission of Proposals, unless the Proposal documents stipulate that no such withdrawal is permitted.</p>
	17.8	The successful service Provider's Proposal Security will be discharged upon the signing the contract pursuant to <b>ITCSP 41</b> , or furnishing the Performance Guarantee, pursuant to <b>ITCSP 42</b> .
	17.9	<p>The Proposal Security may be forfeited or the Proposal Securing Declaration executed:</p> <p>a) if a service Provider:</p> <p>i) withdraws its Proposal during the period of Proposal Validity as specified by the Procuring Agency, and referred by the service Provider on the Form of Proposal except as provided for in <b>ITCSP 16.2</b>; or</p> <p>ii) does not accept the correction of errors pursuant to <b>ITCSP 30.3</b>; or</p> <p>b) in the case of a service Provider, if fails:</p> <p>i) to sign the contract in accordance with <b>ITCSP 41</b>; or</p> <p>ii) to furnish Performance Guarantee in accordance with <b>ITCSP 42</b>.</p>
	17.10	The proposal security shall be valid for a period specified in PDS. Proposals with shorted proposal security validity period shall be rejected straight away.
<b>18. Alternative Proposals by service Providers</b>	18.1	service Providers shall submit offers that comply with the requirements of the RFB (BIDDING DOCUMENT) documents, including the basic service Provider's technical design as indicated in the specifications and Schedule of Requirements. Alternatives will not be considered, unless specifically allowed for in the PDS. If so allowed, <b>ITCSP 19.2</b> shall prevail.
<b>19. Withdrawal, Substitution, and Modification of Proposals</b>	19.1	Before proposal submission deadline, any service Provider may withdraw, substitute, or modify its Proposal after it has been submitted by sending a written notice, duly signed by an authorized representative, and the corresponding substitution or modification must accompany the respective written notice.

	19.2	Proposals requested to be withdrawn in accordance with ITCSP 19.1 shall be returned unopened to the Providers.
<b>20. Format and Signing of Proposal</b>	20.1	service Provider shall prepare an original ONLY and shall submitted through EPAD Online bidding as indicated in the <b>PDS</b> , as appropriate.
	20.2	The original of the Proposal shall be typed or written in indelible ink and shall be signed by the service Provider or a person or persons duly authorized to sign on behalf of the Provider should be delivered through online on EPAD. This authorization shall consist of a written confirmation as specified in the <b>PDS</b> and shall be attached to the Proposal. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Proposal, except for un-amended printed literature, shall be initialed by the person or persons signing the Proposal.
	20.3	Any interlineations, erasures, or overwriting shall be valid only if they are signed by the person or persons signing the” Provider.

#### **D. SUBMISSION OF PROPOSALS**

<b>21. Sealing and Marking of Proposals</b>	21.1	<p>The bidder shall submit bid online through EPADS in accordance with the provisions / regulations of e-procurement procedure.</p> <p>The Proposal shall comprise two envelopes submitted simultaneously, one called the Technical Proposal and the other Financial Proposal. Both proposals (T&amp;F) to be enclosed together. Each service Provider shall submit its proposal as under:</p> <ul style="list-style-type: none"> <li>a) Provider shall submit its TECHNICAL PROPOSAL and FINANCIAL PROPOSAL in separate inner envelopes and enclosed in a single outer envelope.</li> <li>b) Bids must be received by the Procuring Agency online through EPADS till the date and time specified in the Bid Data Sheet</li> </ul>
	21.2	<ul style="list-style-type: none"> <li>a) be addressed to the Procuring Agency at the address provided in the Proposal Data;</li> <li>b) bear the name and identification number of the contract as defined in the PDS; and provide a warning not to open before the time and date for proposal opening, as specified in the Proposal Data pursuant to <b>ITCSP 25.1</b>.</li> <li>c) In addition to the identification required in Sub- Clause</li> </ul>

		21.2 hereof, the inner envelope shall indicate the name and address of the Provider to enable the proposal to be returned unopened in case it is declared “late” pursuant to Clause ITCSP.23
	21.3	If all envelopes are not sealed and marked as required by <b>ITB 21.2</b> and <b>ITB 21.2</b> or incorrectly marked, the Procuring Agency will assume no responsibility for the misplacement or premature opening of Proposal.
<b>22. Deadline for Submission of Proposals</b>	22.1	Proposals shall be received by the Procuring Agency no later than the date and time specified in the <b>PDS</b> .
	22.2	The Procuring Agency may, in exceptional circumstances and at its discretion, extend the deadline for the submission of Proposals by amending the RFB (BIDDING DOCUMENT) documents in accordance with <b>ITCSP 8</b> , in which case all rights and obligations of the Procuring Agency and Providers previously subject to the deadline will thereafter be subject to the new deadline.
<b>23. Late Proposals</b>	23.1	The Procuring Agency shall not consider for evaluation any Proposal that arrives after the deadline for submission of Proposals, in accordance with <b>ITCSP 22</b> .
	23.2	Any Proposal received by the Procuring Agency after the deadline for submission of Proposals shall be declared late, recorded, rejected and returned unopened to the Provider.
<b>24. Withdrawal of Proposals</b>	24.1	A service Provider may withdraw its Proposal after it has been submitted, provided that written notice of the withdrawal of the Proposal, is received by the Procuring Agency prior to the deadline for submission of Proposals.
	24.2	Revised proposal may be submitted after the withdrawal of the original proposal in accordance with the provisions referred in <b>ITCSP 21</b> .

#### E. OPENING AND EVALUATION OF PROPOSALS

<b>25. Opening of Proposals</b>	25.1	The Procuring Agency will open all Proposals Through Online EPADs, in public, in the presence of service Providers’ or their representatives who choose to attend, and other parties with a legitimate interest in the Proposal proceedings at the place, on the date and at the time, specified in the <b>PDS</b> . The service Providers’ representatives present shall sign a register as proof of their attendance.
	25.2	First, envelopes marked “WITHDRAWAL” shall be opened and read out and the envelope with the corresponding proposal shall not be opened, but returned to the service Provider. No proposal withdrawal shall be permitted unless the

		corresponding Withdrawal Notice contains a valid authorization to request the withdrawal and is read out at proposal opening.
	25.3	Second, outer envelopes marked “SUBSTITUTION” shall be opened. The inner envelopes containing the Substitution Proposal shall be exchanged for the corresponding Original Proposal being substituted, which is to be returned to the service Provider unopened. No envelope shall be substituted unless the corresponding Substitution Notice contains a valid authorization to request the substitution and is read out and recorded at proposal opening.
	25.4	Next, outer envelopes marked “MODIFICATION” shall be opened. No Technical Proposal and/or Financial Proposal shall be modified unless the corresponding Modification Notice contains a valid authorization to request the modification and is read out and recorded at the opening of the Proposals. Any Modification shall be read out along with the Original Proposal except in case of Single Stage Two Envelope Procedure where only the Technical Proposal, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Financial Proposal, both Original and Modification, will remain unopened till the prescribed financial proposal opening date.
	25.5	Other envelopes holding the Proposals shall be opened one at a time, in case of Single Stage One Envelope Procedure, the service Providers names, the Proposal prices, the total amount of each Proposal and of any alternative Proposal (if alternatives have been requested or permitted), any discounts, the presence or absence of Proposal Security, Proposal Securing Declaration and such other details as the Procuring Agency may consider appropriate, will be announced by the Procurement Evaluation Committee.
	25.6	The Procuring Agency will open the Technical Proposals in public at the address, date and time specified in the PDS in the presence of service Providers’ designated representatives who choose to attend and other parties with a legitimate interest in the Proposal proceedings. The Financial Proposals will remain unopened and will be held in custody of the Procuring Agency until the specified time of their opening.
	25.7	The envelopes holding the Technical Proposals shall be opened one at a time, and the following read out and recorded: (a) the name of the service Provider; (b) whether there is a modification or substitution; (c) the presence of a bid Security, if required; and (d) Any other details as the Procuring Agency may consider appropriate.

	25.8	Proposals not opened and not read out at the Proposal opening shall not be considered further for evaluation, irrespective of the circumstances. In particular, any discount offered by a service Provider which is not read out at Proposal opening shall not be considered further.
	25.9	service Providers are advised to send in a representative with the knowledge of the content of the Proposal who shall verify the information read out from the submitted documents. Failure to send a representative or to point out any un-read information by the sent service Provider's representative shall indemnify the Procuring Agency against any claim or failure to read out the correct information contained in the service Provider's Proposal.
	25.10	No Proposal will be rejected at the time of Proposal opening except for late Proposals which will be returned unopened to the service Provider, pursuant to <b>ITCSP 23</b> .
	25.11	The Procuring Agency shall prepare minutes of the Proposal opening. The record of the Proposal opening shall include, as a minimum: the name of the service Provider and whether or not there is a withdrawal, substitution or modification, the Proposal price if applicable, including any discounts and alternative offers and the presence or absence of a Proposal Security or Proposal Securing Declaration.
	25.12	The service Providers' representatives who are present shall be requested to sign on the attendance sheet. The omission of a Provider's signature on the record shall not invalidate the contents and affect the record. A copy of the record shall be distributed to all the service Providers.
	25.13	A copy of the minutes of the Proposal opening shall be furnished to individual service Providers upon request.
	25.14	After the evaluation and approval of technical proposal the procuring agency, shall at a time within the proposal validity period, publically open the financial proposals of the technically accepted proposals only. The financial proposal of proposals found technically non-responsive shall be returned un-opened to the respective Providers subject to redress of the grievances from all tiers of grievances.
<b>26. Confidentiality</b>	26.1	Information relating to the examination, clarification, evaluation and comparison of Proposals and recommendation of contract award shall not be disclosed service Providers or any other persons not officially concerned with such process until the time of the announcement of the respective evaluation report.
	26.2	Any effort by a service Provider to influence the Procuring Agency processing of Proposals or award decisions may result

		in the rejection of its Proposal.
	26.3	Notwithstanding <b>ITCSP 27.2</b> from the time of Proposal opening to the time of contract award, if any Provider wishes to contact the Procuring Agency on any matter related to the Bidding process, it should do so in writing or in electronic forms that provides record of the content of communication.
<b>27. Clarification of Proposals</b>	27.1	To assist in the examination, evaluation and comparison of Proposals of the Providers, the Procuring Agency may, ask any service Provider for a clarification of its Proposal including breakdown of prices. Any clarification submitted by a Provider that is not in response to a request by the Procuring Agency shall not be considered.
	27.2	The request for clarification and the response shall be in writing or in electronic forms that provide record of the content of communication. No change in the prices or substance of the Proposal shall be sought, offered, or permitted.
	27.3	The alteration or modification in the PROPOSAL which in any way affect the following parameters will be considered as a change in the substance of a proposal: <ul style="list-style-type: none"> <li>a) evaluation &amp; qualification criteria;</li> <li>b) required scope of work or specifications;</li> <li>c) all securities requirements;</li> <li>d) tax requirements;</li> <li>e) terms and conditions of RFB (BIDDING DOCUMENT) documents.</li> <li>f) change in the ranking of the Provider</li> </ul>
	27.4	From the time of Proposal opening to the time of Contract award if any Provider wishes to contact the Procuring Agency on any matter related to the Proposal it should do so in writing or in electronic forms that provide record of the content of communication.
<b>28. Preliminary Examination of Proposals</b>	28.1	Prior to the detailed evaluation of Proposals, the Procuring Agency will determine whether each Proposal: <ul style="list-style-type: none"> <li>a) meets the eligibility criteria defined in <b>ITCSP 3</b> and <b>ITCSP 4</b>;</li> <li>b) has been prepared as per the format and contents defined by the Procuring Agency in the RFB (BIDDING DOCUMENT) documents;</li> <li>c) has been properly signed;</li> <li>d) is accompanied by the required securities; and</li> <li>e) is substantially responsive to the requirements of the</li> </ul>

		RFB (BIDDING DOCUMENT) documents.  The Procuring Agency's determination of a Proposal's responsiveness will be based on the contents of the Proposal itself.
	28.2	A substantially responsive Proposal is one which conforms to all the terms, conditions, and specifications of the RFB (BIDDING DOCUMENT) documents, without material deviation or reservation. A material deviation or reservation is one that: - <ul style="list-style-type: none"> <li>a) affects in any substantial way the scope, quality, or performance of the Services;</li> <li>b) limits in any substantial way, inconsistent with the RFB (BIDDING DOCUMENT) documents, the Procuring Agency's rights or the service Providers obligations under the Contract; or</li> <li>c) if rectified, would affect unfairly the competitive position of other service Providers presenting substantially responsive Proposals.</li> </ul>
	28.3	The Procuring Agency will confirm that the documents and information specified under <b>ITCSP 10, 11 and 12</b> have been provided in the Proposal. If any of these documents or information is missing, or is not provided in accordance with the Instructions to service Providers, the Proposal shall be rejected.
	28.4	If a Proposal is not substantially responsive, it will be rejected by the Procuring Agency and may not subsequently be evaluated for complete technical responsiveness.
<b>29. Examination of Terms and Conditions; Technical Evaluation</b>	29.1	The Procuring Agency shall examine the Proposal to confirm that all terms and conditions specified in the GCC and the SCC have been accepted by the service Provider without any material deviation or reservation.
	29.2	The Procuring Agency shall evaluate the technical aspects of the Proposal submitted in accordance with <b>ITCSP 21</b> , to confirm that all requirements specified in <b>Section V – Schedule of Requirements, Technical Specifications</b> of the RFB (BIDDING DOCUMENT) documents have been met without material deviation or reservation.
	29.3	If after the examination of the terms and conditions and the technical evaluation, the Procuring Agency determines that the Proposal is not substantially responsive in accordance with <b>ITCSP 28</b> , it shall reject the Proposal.
<b>30. Correction of</b>	30.1	Proposals determined to be substantially responsive will be

<b>Errors</b>		<p>checked for any arithmetic errors. Errors will be corrected as follows: -</p> <ul style="list-style-type: none"> <li>a) if there is a discrepancy between unit prices and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail, and the total price shall be corrected, unless in the opinion of the Procuring Agency there is an obvious misplacement of the decimal point in the unit price, in which the total price as quoted shall govern and the unit price shall be corrected;</li> <li>b) if there is an error in a total corresponding to the addition or subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected; and</li> <li>c) where there is a discrepancy between the amounts in figures and in words, the amount in words will govern.</li> <li>d) Where there is discrepancy between grand total of price schedule and amount mentioned on the Form of Proposal, the amount referred in Price Schedule shall be treated as correct subject to elimination of other errors.</li> </ul>
<b>31. Conversion to Single Currency</b>	31.1	To facilitate evaluation and comparison, the Procuring Agency will convert all Proposal prices expressed in the amounts in various currencies in which the Proposal prices are payable. For the purposes of comparison of proposals quoted in different currencies, the price shall be converted into a single currency specified in the RFB (BIDDING DOCUMENT) documents. The rate of exchange shall be the selling rate, prevailing on the date of opening of (financial part of ) proposals specified in the RFB (BIDDING DOCUMENT) documents, as notified by the State Bank of Pakistan on that day.
	31.2	The currency selected for converting Proposal prices to a common base for the purpose of evaluation, along with the source and date of the exchange rate, are specified in the <b>PDS</b> .
<b>32. Evaluation of Proposals</b>	32.1	The Procuring Agency shall evaluate and compare only the Proposals determined to be substantially responsive, pursuant to <b>ITCSP 28</b> .
	32.2	In evaluating the Technical Proposal of each Proposal, the Procuring Agency shall use the criteria and methodologies listed in the PDS and in terms of Statement of Requirements and Technical Specifications. No other evaluation criteria or

		methodologies shall be permitted.
<b>33. Domestic Preference</b>	33.1	Not Applicable in case of Services.
<b>34. Determination of Most Advantageous Proposal</b>	34.1	In case where the Procuring Agency adopts the Cost Based Evaluation Technique and, the proposal with the lowest evaluated price from amongst those which are eligible, compliant and substantially responsive shall be the Most Advantageous Bid.
	34.2	The Procuring Agency may adopt the Quality & Cost Based Selection Technique:  In such cases, the Procuring Agency may allocate certain weightage to these factors as a part of Evaluation Criteria, and may determine the ranking of the service Providers on the basis of combined evaluation in accordance with provisions of Rule 2(1)(h) of PPR-2004.
<b>35. Abnormally Low Financial Proposal</b>	35.1	Where the Proposal price is considered to be abnormally low, the Procuring Agency shall perform price analysis either during determination of Most Advantageous Proposal or as a part of the post-qualification process. The following process shall apply:  (a) The Procuring Agency may reject a Proposal if the Procuring Agency has determined that the price in combination with other constituent elements of the Proposal is abnormally low in relation to the subject matter of the procurement (i.e. scope of the procurement or ancillary services) and raises concerns as to the capability and capacity of the respective service Provider to perform that contract;  (b) Before rejecting an abnormally low Proposal the Procuring Agency shall request the service Provider an explanation of the Proposal or of those parts which it considers contribute to the Proposal being abnormally low; take account of the evidence provided in response to a request in writing; and subsequently verify the Proposal or parts of the Proposal being abnormally low;  (c) The decision of the Procuring Agency to reject a Proposal and reasons for the decision shall be recorded in the procurement proceedings and promptly communicated to the service Provider concerned;  (d) The Procuring Agency shall not incur any liability solely by rejecting abnormally Proposal; and

		<p>(e) An abnormally low Proposal means, in the light of the Procuring Agency’s estimate and of all the Proposals submitted, the Proposal appears to be abnormally low by not providing a margin for normal levels of profit.</p> <p>In order to identify the Abnormally Low Proposal (ALB) following approaches can be considered to minimize the scope of subjectivity:</p> <p>(i) Comparing the proposal price with the cost estimate;  (ii) Comparing the proposal price with the proposals offered by other service Providers submitting substantially responsive proposals; and  (iii) Comparing the proposal price with prices paid in similar contracts in the recent past either government- or development partner-funded.</p>
	35.2	The Procuring Agency will determine to its satisfaction whether service Provider that is selected as having submitted the most advantageous Proposal is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITCSP 12.3.
	35.3	The determination will take into account the Procurement / Development service Provider’s financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the service Provider’s qualifications submitted by the Provider, pursuant to ITCSP 12.3, as well as such other information as the Procuring Agency deems necessary and appropriate. Factors not included in these RFB (BIDDING DOCUMENT) documents shall not be used in the evaluation of the Procurement / Development Providers’ qualifications.
	35.4	<p>Procuring Agency may seek “Certificate for Independent Price Determination” from the Provider and the results of reference checks may be used in determining an award of contract.</p> <p>Explanation: The Certificate shall be furnished by the Provider. The service Provider shall certify that the price is determined keeping in view of all the essential aspects such as raw material, its processing, value addition, optimization of resources due to economy of scale, transportation, insurance and margin of profit etc.</p>

	35.5	An affirmative determination will be a prerequisite for award of the contract to the Provider. A negative determination will result in rejection of the Provider's Proposal, in which event the Procuring Agency will proceed to the next ranked Provider to make a similar determination of that Provider's capabilities to perform satisfactorily.
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## F. AWARD OF CONTRACT

<p><b>36. Criteria of Award</b></p>	<p>36.1</p>	<p>Subject to ITCSP 37, the Procuring Agency will award the Contract to the service Provider whose Proposal has been determined to be substantially responsive to the RFB (BIDDING DOCUMENT) documents and who has been declared as Most Advantageous service Provider has been determined to be:</p> <ul style="list-style-type: none"> <li>a) eligible in accordance with the provisions of ITCSP 3;</li> <li>b) is determined to be qualified to perform the Contract satisfactorily; and</li> <li>c) Successful negotiations have been concluded, if any.</li> </ul>
<p><b>37. Negotiations Not Applicable.</b></p>	<p>37.1</p>	<p>Negotiations may be undertaken with the Most Advantageous Proposal relating to the following areas:</p> <ul style="list-style-type: none"> <li>(a) a minor alteration to the technical details of the statement of requirements;</li> <li>(b) reduction of quantities for budgetary reasons, where the reduction is in excess of any provided for in the Proposal documents;</li> <li>(c) a minor amendment to the special conditions of Contract;</li> <li>(d) finalizing payment arrangements;</li> <li>(e) delivery arrangements;</li> <li>(f) the methodology for provision of related services; or</li> <li>(g) clarifying details that were not apparent or could not be finalized at the time of Bidding;</li> </ul>
	<p>37.2</p>	<p>Where negotiation fails to result in an agreement, the Procuring Agency may invite the next ranked Provider for negotiations. Where negotiations are commenced with the next ranked Provider, the Procuring Agency shall not reopen earlier negotiations.</p>
<p><b>38. Procuring Agency's Right to reject All Proposals</b></p>	<p>38.1</p>	<p>Notwithstanding ITCSP 36, the Procuring Agency reserves the right to reject all the proposals and to annul the Bidding process at any time prior to Acceptance of a Proposal, without thereby incurring any liability to the affected Provider or Providers. However, the Authority (i.e. PPRA) may call from the Procuring Agency the justification of those grounds.</p>
	<p>38.2</p>	<p>Notice of the rejection of all Proposals shall be given promptly to all Providers that have submitted Proposals.</p>

	38.3	The Procuring Agency shall upon request communicate to any Provider the grounds for its rejection of its Proposals, but is not required to justify those grounds.
<b>39. Procuring Agency's Right to Vary Quantities at the Time of Award</b>	39.1	The Procuring Agency reserves the right at the time of contract award to increase or decrease the requirement of related services originally specified in these RFB (BIDDING DOCUMENT) documents (schedule of requirements) provided this does not exceed by the percentage indicated in the PDS, without any change in unit price or other terms and conditions of the Proposal and RFB (BIDDING DOCUMENT) documents.
<b>40. Notification of Award</b>	40.1	Prior to the award of contract, the Procuring Agency shall issue a Final Evaluation Report giving justification for acceptance or rejection of the proposals.
	40.2	Where no complaints have been lodged, the Provider whose Proposal has been accepted will be notified of the award by the Procuring Agency prior to expiration of the Proposal Validity period in writing or electronic forms that provide record of the content of communication. The Letter of Acceptance will state the sum that the Procuring Agency will pay the successful Provider in consideration for the execution of the scope of works as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price).
	40.3	The notification of award will constitute the formation of the Contract, subject to the Provider furnishing the Performance Guarantee in accordance with <b>ITCSP 42</b> and signing of the contract in accordance with <b>ITCSP 41.2</b> .
	40.4	Upon the successful Provider's furnishing of the Performance Guarantee pursuant to <b>ITCSP 42</b> , the Procuring Agency will promptly notify each unsuccessful Provider, the name of the successful Provider and the Contract amount and will discharge the Proposal Security or Proposal Securing Declaration of the Providers pursuant to <b>ITCSP 17.7</b> .
<b>41. Signing of Contract</b>	41.1	Promptly after notification of award, Procuring Agency shall send the successful Provider the draft agreement, incorporating all terms and conditions as agreed by the parties to the contract.
	41.2	Immediately after the Redressal of grievance by the GRC, and <b>after fulfillment of all conditions precedent</b> of the Contract Form, the successful Provider and the Procuring Agency shall sign the contract.
<b>42. Performance Guarantee</b>	42.1	After the receipt of the Letter of Acceptance, the successful Provider, within the specified time, shall deliver to the Procuring Agency a Performance Guarantee in the amount and

		in the form stipulated in the <b>PDS and SCC</b> , denominated in the type and proportions of currencies in the Letter of Acceptance and in accordance with the Conditions of Contract.
	42.2	If the Performance Guarantee is provided by the successful Provider and it shall be in the form specified in the <b>PDS</b> .
	42.3	Failure of the successful Provider to comply with the requirement of <b>ITCSP 42.1</b> shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid Security, in which event the Procuring Agency may make the award to the next ranked Provider or call for new Proposals.
<b>43. Advance Payment (No advance payment)</b>	43.1	The Procuring Agency will provide an Advance Payment as stipulated in the Conditions of Contract, subject to a maximum amount, as stated in the <b>PDS</b> . The Advance Payment request shall be accompanied by an Advance Payment Security (Guarantee) in the form provided in Contract Form.
<b>44. Arbitrator</b>	44.1	The Arbitrator shall be appointed by mutual consent of the both parties as per the provisions specified in the SCC.
<b>45. Corrupt &amp; Fraudulent Practices</b>	45.1	Procuring Agencies (including beneficiaries of Government funded projects and procurement) as well as Providers/Contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts, and will avoid to engage in any corrupt and fraudulent practices.

#### F. GRIEVANCE REDRESSAL & COMPLAINT REVIEW MECHANISM

<b>46. Constitution of Grievance Redressal</b>	46.1	Procuring agency shall constitute a Grievance Redressal Committee (GRC) comprising of an odd number of persons with proper power and authorization to address the complaint. The GRC shall not have any of the members of Procurement Evaluation Committee. The committee must have one subject specialist depending the nature of the procurement.
<b>47. GRC Procedure</b>	47.1	Any party can file its written complaint against the eligibility parameters or any other terms and conditions prescribed in the prequalification or RFB (BIDDING DOCUMENT) documents found contrary to provision of Procurement Regulatory Framework, and the same shall be addressed by the GRC well before the proposal submission deadline.
	47.2	Any Provider feeling aggrieved by any act of the procuring agency after the submission of his proposal may lodge a written complaint concerning his grievances not later than seven days of the announcement of technical evaluation report and five days after issuance of final evaluation report.

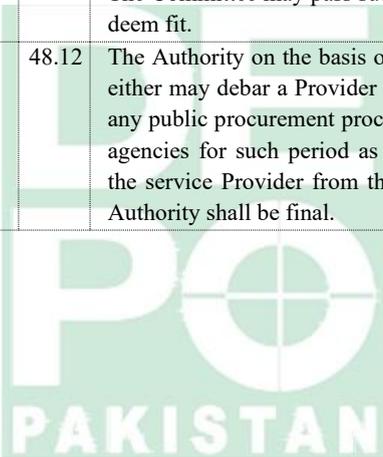
	47.3.	In case, the complaint is filed against the technical evaluation report, the GRC shall suspend the procurement proceedings.
	47.4	In case, the complaint is filed after the issuance of the final evaluation report, the complainant cannot raise any objection on technical evaluation of the report:  Provided that the complainant may raise the objection on any part of the final evaluation report in case where single stage one envelop bidding procedure is adopted.
	47.5	The GRC, in both the cases shall investigate and decide upon the complaint within ten days of its receipt.
	47.6	Any Provider or the procuring agency not satisfied with the decision of the GRC may file Appeal before the Appellate Committee of the Authority within thirty (30) days of communication of decision on prescribed format after depositing the Prescribed fee.
	47.7	The Committee, upon receipt of the Appeal against the decision of the GRC complete in all respect shall serve notices in writing upon all the parties to Appeal.
	47.8	The committee shall call the record from the concerned procuring agency or the GRC as the case may be, and the same shall be provided within prescribed time.
	47.9	The committee may after examination of the relevant record and hearing all the concerned parties, shall decide the complaint.
	47.10	The decision of the Committee shall be in writing and shall be signed by the Head and each Member of the Committee. The decision of the committee shall be final.

#### G. MECHANISM OF BLACKLISTING

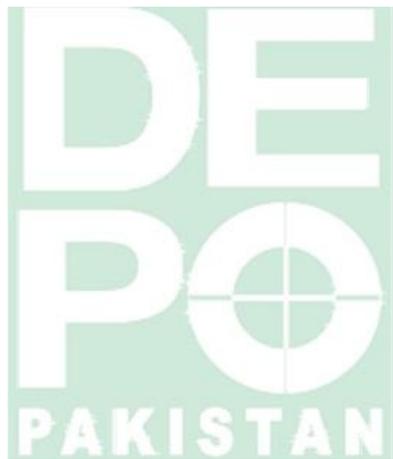
<b>48. Mechanism of Blacklisting</b>	48.1	The Procuring Agency shall bar for not more than the time prescribed in Rule-19 of the Public Procurement Rules, 2004, from participating in their respective procurement proceedings, Provider or contractor who either: <ul style="list-style-type: none"> <li>i. Involved in corrupt and fraudulent practices as defined in Rule-2 of Public Procurement Rules;</li> <li>ii. Fails to perform his contractual obligations; and</li> <li>iii. Fails to abide by the bid securing declaration;</li> </ul>
	48.2	The show cause notice shall contain: (a) precise allegation, against the Provider or contractor; (b) the maximum period for which the Procuring Agency proposes to debar the Provider or contractor from participating in any public procurement of the

		Procuring Agency; and (c) the statement, if needed, about the intention of the Procuring Agency to make a request to the Authority for debarring the Provider or contractor from participating in public procurements of all the procuring agencies.
	48.3	The procuring agency shall give minimum of seven days to the Provider or contractor for submission of written reply of the show cause notice
	48.4	In case, the service Provider or contractor fails to submit written reply within the requisite time, the Procuring Agency may issue notice for personal hearing to the Provider or contractor/ authorize representative of the service Provider or contractor and the procuring agency shall decide the matter on the basis of available record and personal hearing, if availed.
	48.5	In case the service Provider or contractor submits written reply of the show cause notice, the Procuring Agency may decide to file the matter or direct issuance of a notice to the Provider or contractor for personal hearing.
	48.6	The Procuring Agency shall give minimum of seven days to the Provider or contractor for appearance before the specified officer of the Procuring Agency for personal hearing. The specified officer shall decide the matter on the basis of the available record and personal hearing of the service Provider or contractor, if availed
	48.7	The procuring Agency shall decide the matter within fifteen days from the date of personal hearing unless the personal hearing is adjourned to a next date and in such an eventuality, the period of personal hearing shall be reckoned from the last date of personal hearing.
	48.8	The Procuring Agency shall communicate to the Provider or contractor the order of debarring Provider or contractor from participating in any public procurement with a statement that the Provider or contractor may, within thirty days, prefer a representation against the order before the Authority.
	48.9	Such blacklisting or barring action shall be communicated by the procuring agency to the Authority and respective Provider or Providers in the form of decision containing the grounds for such action. The same shall be publicized by the Authority after examining the record whether the procedure defined in blacklisting and debarment mechanism has been adhered to by the procuring agency.

	<p>48.10 The service Provider may file the review petition before the Review Petition Committee Authority within thirty days of communication of such blacklisting or barring action after depositing the prescribed fee and in accordance with “Procedure of filing and disposal of review petition under Rule-19(3) Regulations, 2021”. The Committee shall evaluate the case and decide within ninety days of filing of review petition</p>
	<p>48.11 The committee shall serve a notice in writing upon all respondent of the review petition. The notices shall be accompanied by the copies of review petition and all attached documents of the review petition including the decision of the procuring agency. The parties may file written statements along with essential documents in support of their contentions. The Committee may pass such order on the representation may deem fit.</p>
	<p>48.12 The Authority on the basis of decision made by the committee either may debar a Provider or contractor from participating in any public procurement process of all or some of the procuring agencies for such period as the deemed appropriate or acquit the service Provider from the allegations. The decision of the Authority shall be final.</p>



## **SECTION III: DATA SHEET**



**Proposal Data Sheet (PDS)**

The following specific data for the Procurement of services to be procured shall complement, supplement, or amend the provisions in the Instructions to Development of IT Software, Operations and Maintenance ” Providers (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

PDS Clause Number	ITSB Number	Amendments of, and Supplements to, Clauses in the Instruction to Development of IT Software, Operations and Maintenance ” Providers
<b>A. Introduction</b>		
<b>a.</b>	<b>1.1</b>	<p>Name of Procuring Agency: <b><u>Defence Export Promotion Organization (DEPO) Operated under the Federal Ministry of Pakistan.</u></b></p> <p>The subject of procurement is: <b>[Development of IT Software, Operations and Maintenance ]</b></p> <p>National Competitive Bidding process shall be conducted online through E-PADS system under rule 38(b) of PPR-2004 (i.e. Single Stage Two Envelope Bidding Procedure) with Most Advantageous Method</p> <p><b>Period for Provision of Services:</b> [Development of IT Software, Operations and Maintenance (Contract till December 31, 2026 Extendable For Another Two Years)</p> <p>Commencement date for Provision of Services: [07 days after signing of contract</p>
<b>b.</b>	<b>2.1</b>	<p>Financial year for the operations of the Procuring Agency: <b>[2026/</b></p> <p>Name of Project: <b>[Development of IT Software, Operations and Maintenance ]</b></p> <p>Name and identification number of the Contract:</p> <hr/> <p style="text-align: center;"><b>GSO-II IDEAS</b></p> <p style="text-align: center;">Address: DEPO, Defence Complex Sector E 10, Islamabad Contact No. 0322-5270013 email; Ddcoord@Depo.Gov.Pk</p>

**B. RFB (BIDDING DOCUMENT) documents**

c.	6.2	The number of documents to be completed and returned is [ <i>Only one Original Submitted Online EPAD</i> ].
d.	7.1	The address for clarification of RFB documents is:  <b>GSO-II IDEAS</b> <b>Address: DEPO, DEFENCE COMPLEX SECTOR E 10,</b> <b>ISLAMABAD</b> <b>Contact +92-51-9262017-8 email: <a href="mailto:info@ideaspakistan.gov.pk">info@ideaspakistan.gov.pk</a>,</b> <b>website: <a href="http://ideaspakistan.gov.pk">ideaspakistan.gov.pk</a></b>
	7.5	Pre-proposal meeting will be [ <i>16<sup>th</sup> March 2026 Timing 12:00 Hours at the office</i> ]. Note: in case meeting to be held then insert date of the meeting along with details regarding the place of the meeting.

**C. Preparation of Proposals**

e.	9.1	The Language of all correspondences and documents related to the Proposal shall [English/						
f.	14.6	The price quoted shall be inclusive of all applicable / prevailing taxes, duties, delivery and transportation charges etc. Price should be mentioned as follows: Price exclusive of taxes: Total taxes: Price inclusive of taxes:  Price shall remain the fix during the currency of the contract / agreement and no escalation / price adjustment is permissible.						
g.	15.1 (a)	Currency of the Proposal shall be [PKR]						
h.	16.1	The Proposal Validity period shall be [90 Days ].						
i.	17.1	The amount of Proposal Security shall be Detail of Bid Security in the shape of CDR/PO/DD/ Bank Guarantee in favor of Project Director ‘‘Defense Export Promotion Organization (DEPO)’’ on the services estimated cost and required bid securities is given below along with estimated price in PKR: <table border="1" data-bbox="411 1688 1062 1783"> <thead> <tr> <th>Sr.</th> <th>Description of Procurement (Scope of Services / TORs)</th> <th>Bid Security Amount (Rs.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Development of IT Software, Operations and</td> <td>1,000,000 (One Million Pak</td> </tr> </tbody> </table>	Sr.	Description of Procurement (Scope of Services / TORs)	Bid Security Amount (Rs.)	1	Development of IT Software, Operations and	1,000,000 (One Million Pak
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		<table border="1"> <tr> <td><b>Maintenance</b> Details of Scope of Services details given in the Section-V of the Bidding Document</td> <td>Rupees Only)</td> </tr> </table>	<b>Maintenance</b> Details of Scope of Services details given in the Section-V of the Bidding Document	Rupees Only)
<b>Maintenance</b> Details of Scope of Services details given in the Section-V of the Bidding Document	Rupees Only)			
		<p>Original bid security will be submitted with Technical Bid on the opening date mentioned in the invitation / advertisement ‘‘Defense Export Promotion Organization (DEPO)’’ at the given address <b>Address: DEFENCE COMPLEX SECTOR E 10, ISLAMABAD .</b></p> <p>Each bidder will have to submit an original Bid Security along with <b>Technical Bid</b> within the limits as specified in PPRA Rules 2004) in form of <b>CDR / Bank Guarantee / Demand Drat / Pay Order / Bankers Cheque</b> in favor of Project Director, ‘‘Defense Export Promotion Organization (DEPO)’’ valid for the period equal to or 90 days beyond the bid validity date</p>		
<b>j.</b>	<b>17.3</b>	The Bid Security shall be in the form [ <i>Pay Order, CDR, Bank Draft, Bank Guarantee</i> ].		
<b>k.</b>	<b>17.10</b>	The proposal security shall be valid for [90 days] beyond the expiry of the Proposal validity period.		
<b>l.</b>	<b>18.1</b>	Alternative Proposals to the requirements of the RFB (BIDDING DOCUMENT) documents will not be permitted.		
<b>m.</b>	<b>20.1</b>	The number of copies of the Proposal to be completed and returned shall be [ <i>One Original through EPAD Technical and Financial</i> ].		

#### D. Submission of Proposals

<b>n.</b>	<b>21.2 (a)</b>	<p>The proposal shall be submitted to the following address: The deadline for Bid submission of Bids is; E-PADS</p> <hr/> <p style="text-align: center;"><b>GSO-II IDEAS</b> <b>Address: DEPO, DEFENCE COMPLEX SECTOR E 10,</b> <b>ISLAMABAD</b> <b>Contact +92-51-9262017-8 email: <a href="mailto:info@ideaspakistan.gov.pk">info@ideaspakistan.gov.pk</a>,</b> <b>website: <a href="http://ideaspakistan.gov.pk">ideaspakistan.gov.pk</a></b> )</p>
<b>o.</b>	<b>21.2 (b)</b>	Title of the subject Procurement : [Development of IT Software, Operations and Maintenance ]
<b>p.</b>	<b>22.1</b>	<p>It is instructed to all bidder to submit bids only through E-PADs as per PPRA rules and instruction of bidding document</p> <p>The deadline for Proposal submission is through EPAD</p>

		<a href="https://eprocure.gov.pk/">https://eprocure.gov.pk/</a> a) Day : [Wednesday ] b) Date: [25 <sup>th</sup> March 2026] c) Time: [10:30 Hours) <b>Place of Bid Address:</b> Address: Defence Complex Sector E 10, Islamabad Contact No. 0322-5270013 Website; Ddcoord@Depo.Gov.Pk
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### E. Opening and Evaluation of Proposals

q.	25.1	The Technical part of the Proposal opening shall take place at: [Online through E-PADs on hard submission is required all necessary document must be submitted through online procurement system E-PADs not hard copy will be consider for bid evaluation]. <a href="https://eprocure.gov.pk/">https://eprocure.gov.pk/</a> a) Day : [Wednesday ] b) Date: [25 <sup>th</sup> March 2026] a) Time: [11:00 Hours) <b>Place of Bid Address:</b> Address: Defence Complex Sector E 10, Islamabad
r.	34	<b>Evaluation Techniques</b> <b>Most Advantageous Method</b> a. National Competitive Bidding shall be conducted online through EPADS under rule 36(b) i.e. Single Stage-Two Envelope bidding procedure with Most Advantageous Procurement method as stipulated in PPRA Rules 2004, as amended from time to time. b. Contract will be awarded to overall Most advantageous bidder. c. Note: Bidders shall fill the prices in the price schedule of this bidding document and shall submit the bid document in the financial bid. The bidding document without price schedule will be submitted in the technical bid. Each page of the bidding document must be signed and stamped by the authorized person of the bidder
<b>F. Award of Contract</b>		
s.	42.1	The Performance guarantee shall be [10%] of the Contract Price.

t.	42.2	The Performance Guarantee shall be acceptable in the form of [The successful bidder shall submit 10% of <b>Contract Price</b> against respective Item as Performance Guarantee in shape of unconditional irrevocable Bank Guarantee valid for the period 01 year beyond the contract period / deliverables / warranty period (whichever is later) and shall be released after the successful completion of contract / deliverables / warranty period (whichever is later).]-
u.	43.1	The Advance Payment shall be [ <b>Not allowed</b> ]
v.	44.1	Arbitrator shall be appointed by mutual consent of the both parties at Islamabad any court of Law.

#### G. Review of Procurement Decisions

w.	48.1	The address of the Procuring Agency:  [Office of the Defence Export Promotion Organization (DEPO) / Place of Bid Address: Address: Defence Complex Sector E 10, Islamabad ]
x.		The Address of PPRA Grievance Redressal Appellate Committee to submit a <b>copy</b> of grievance:  Grievance Redressal Appellate Committee, Public Procurement Regulatory Authority 1 <sup>st</sup> Floor, G-5/2, Islamabad, Pakistan Tel: +92-51-9202254

## **Section IV. ELIGIBLE COUNTRIES**

All Service Providers are allowed to participate in the subject procurement without regard to nationality, except some nationalities prohibited in accordance with policy of the Federal Government.

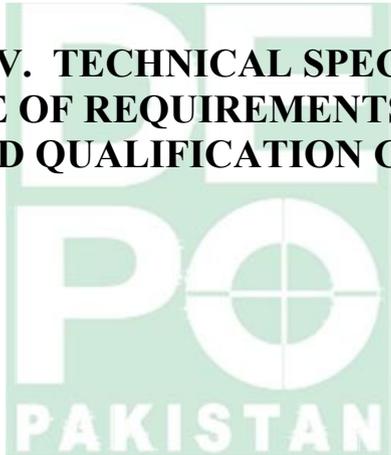
Following countries are ineligible to participate in the procurement process:

1. India
2. Israel

Ministry of Interior, Government of Pakistan has notified List of Business Friendly Countries (BVL), information can be accessed through following link:  
<http://www.dgip.gov.pk/Files/Visa%20Categories.aspx#L>



**Section V. TECHNICAL SPECIFICATIONS,  
SCHEDULE OF REQUIREMENTS, EVALUATIONS  
AND QUALIFICATION CRITERIA**



## Schedule of Requirements/Deliverables/Milestone

### Background:

IDEAS (International Defence Exhibition and Seminar) is the flagship defence exhibition of Pakistan and serves as a strategic international platform for showcasing capabilities in defence, security, aerospace, maritime and allied domains.

Owing to the scale, sensitivity and complexity of the event, the successful conduct of IDEAS depends upon a robust and integrated IT environment capable of supporting registration, accreditation, exhibitor management, delegation handling, event coordination, logistics, access control, dashboards, communications and other mission-critical operational functions.

Accordingly, this Statement of Work is intended to procure comprehensive software development, operations and maintenance services for an interconnected suite of systems that must function securely, reliably and in a coordinated manner to support all phases of IDEAS 2026, including planning, execution, monitoring and post-event analysis.

S.No.	Modules to be completed/delivered (The following modules are required to be integrated with existing modules listed below)
1	Exhibitor Floor Management
2	Registration Management
3	Auto Email Module
4	Stall Builder
5	AI Chatbot
6	Event Management
7	Logistic Management
8	Vehicle Access & Smart Parking
9	Delegation Handling
10	Media Management
11	Security and Incident
12	Badge Printing & Code Generation
13	Pass Management System
14	Attendance Tracking
15	Content Management System
16	API Integration
17	Biometric Verification
18	CCTV Surveillance & Monitoring
19	Cyber Security
20	Incident Management
21	Communication Log Tracking
22	Emergency Response Coordination
23	Social Media Monitoring Tools
24	Meetings & MOU management system
25	Android Application
26	IOS Application
27	Harmony Application
28	WhatsApp Module

29	WeChat Module
30	Post Expo Reporting
31	Integrated Modules Dashboard (Tiered Dashboard)
32	KPI Dashboard

S.No.	Existing Modules
1	Website Management System
2	Finance Dashboard
3	Live Dashboard
4	Exhibition Space Sales

#### Timelines of Contract

Time Period for Development of Software/Modules listed above is expected to be in Phases between 03-05 Months from award date.

The Operations and Maintenance is required to be covered till December 31, 2026.

#### Contract Extension

Subject to satisfactory performance, the Procuring Agency reserves the right to extend the contract from December 31, 2026 for the next two years under mutually agreed terms and conditions. Performance evaluation shall be based on:

- ✓ System stability and uptime
- ✓ Responsiveness to technical issues
- ✓ Compliance with delivery timelines
- ✓ Security and data protection compliance
- ✓ Post-event support and maintenance quality

The extension shall cover system maintenance, upgrades, technical support, and future IDEAS event adaptations.

#### Change Management Clause

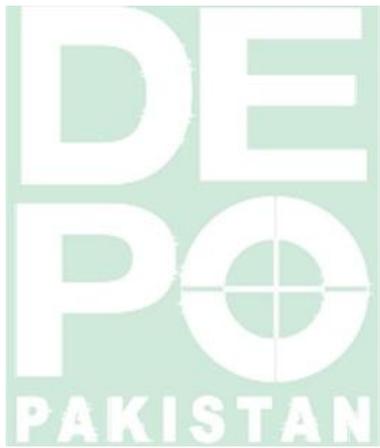
During the development and implementation phase of IDEAS 2026 systems, the Procuring Agency reserves the right to request reasonable modifications, enhancements or additional modules that are logically related to the approved scope of work.

The Contractor shall:

- Accommodate functional refinements and workflow improvements
- Develop minor submodules or dashboards, if required for operational effectiveness
- Modify reports, user roles and analytics views as requested.

- Adjust UI/UX components to improve usability.

Such changes shall be implemented without any additional financial claim, provided that they fall within the original system domain and do not constitute a completely new standalone module or system.



## ▪ Terms of Reference and Scope of Work

**Terms of Reference (ToRs) for the Development, Deployment and Maintenance of Official Website and related modules for IDEAS 2026**, incorporating:

- a. Objectives
- b. Scope of Work
- c. Modern Coding Standards
- d. Network & Cyber Security Requirements
- e. Integration Clauses
- f. Performance

### 2. Background

The IDEAS is a premier international exhibition platform representing national capabilities in defence, security, aerospace, maritime and allied technologies. In order to ensure effective outreach, participant engagement, registration management and digital coordination, an integrated, secure and scalable **Official Website** is required.

The website shall serve as the primary digital interface for all modules and dashboards in subsequent paras

### 3. Objectives

The objectives of this assignment are:

- To design, develop and deploy a secure, scalable and high-performance official website.
- To ensure integration with all relevant Expo management modules.
- To implement modern coding practices aligned with latest industry standards.
- To ensure robust network and cyber security protections.
- To provide post-deployment support and performance-based contract extension up to December 31, 2028.

**4. Scope of Work.** The selected firm/vendor shall undertake the following:

#### a. Website Design & Development

- Develop a modern, responsive and multilingual website (minimum English & Urdu).
- Ensure compatibility across desktop, tablet and mobile devices.
- Provide a professional interface aligned with national branding.
- Develop CMS-enabled backend for content updates by authorized staff.
- Implement search engine optimization (SEO) best practices.
- Ensure accessibility compliance (WCAG baseline standards (Web Content Accessibility Guidelines basing on POUR and Conformance levels)).

b. **Core Website Sections.** The website shall include but not be limited to:

- Home Page (Dynamic highlights & announcements)
- About the Expo
- Exhibitor Information
- Registrations

- o Media Centre
- o Sponsors Section
- o Floor Plans & Hall Layout
- o News & Press Releases
- o Contact & Helpdesk
- o FAQ
- o Download Centre
- o AI Chatbot and Messenger Plugins

**c. Integration with Other Expo Modules**

The website shall be integrated (via secure APIs) with all modules, where applicable:

1. Exhibitor Floor Management
2. Registration Management
3. Auto Email Module
4. Stall Builder
5. AI ChatBot
6. Event Management
7. Logistic Management System
8. Vehicle Access & Smart Parking
9. Delegation handling
10. Media Management
11. Security and Incident
12. Badge Printing and Code Generation
13. Pass Management System
14. Attendance Tracking
15. Content Management System
16. API Integration
17. Biometric Verification
18. CCTV Surveillance and Monitoring
19. Cyber Security
20. Incident Management
21. Communication Log Tracking
22. Emergency Response Coordination
23. Social Media Monitoring Tools
24. B2B Meetings
25. Android Mobile Application
26. IOS Mobile Application
27. Harmony Mobile Application
28. WhatsApp Module
29. WeChat Module
30. Post Expo Reporting
31. Integrated Modules Dashboard Tiered Dashboard
32. KPI Dashboard



(If any minor sub-module, field, workflow enhancement, or integration refinement is identified during implementation that is necessary for functional completeness, the same shall be incorporated **without additional cost**, provided it does not constitute development of an entirely new standalone module).

## 5. Technical & Coding Standards

The system shall comply with latest industry standards and modern secure coding practices including but not limited to:

- Use of latest stable frameworks (For frontend use React/Angular/Vue; (For Backend Languages & Frameworks use **Node.js & Python (with Django or Flask)**)
- RESTful API architecture with proper documentation (Open API/Swagger):
  - All core services/ modules to ensure scalability, interoperability and future integrations
  - All APIs shall follow industry best practices, including **resource-based endpoints**, appropriate **HTTP methods** and standardized **HTTP status codes**.
  - The vendor shall provide complete **Open API (Swagger) documentation** for all endpoints, including:
    - Endpoint purpose and URL structure
    - Request/response schemas (JSON) with examples
    - Authentication/authorization mechanism (e.g., OAuth2/JWT/API keys)
    - Error codes and messages
    - Versioning strategy and backward compatibility notes
  - Documentation must be **kept updated** with each release and made available in both:
    - **Interactive Swagger UI** (hosted within the system or secure internal access)
    - **Exportable formats** (OpenAPI JSON/YAML, PDF) for approvals and audits
  - APIs shall support **secure integration** with existing and future modules/systems (e.g., registration, accreditation, payment, reporting, access control), with clear **interface control documents (ICDs)** if required.
- Modular and scalable architecture
- Version control via Git-based repositories (All source code, configuration files, database scripts, API definitions (OpenAPI/Swagger), and documentation)
- CI/CD (Continuous Integration / Continuous Deployment) pipeline implementation.
- Code documentation and inline commenting (All documentation shall follow internationally recognized coding standards)
- Use of latest supported language versions (Under no circumstances shall end-of-life (EOL) or unsupported software versions be used in production environments)
- Elimination of deprecated libraries.
- Clean code architecture principles with with minimal vendor dependency over the contract period (2026–2028)
- Separation of development (**DEV**), staging (**STG/UAT (pre PROD)**) and production environments (**PROD**)

## 6. Network Security & Cyber Security Requirements

The vendor shall implement defence-grade cyber security controls including but not limited to:

### a. Application Security

- Secure coding practices (OWASP Top 10 compliance)
- Input validation and sanitization
- Protection against:
  - SQL Injection
  - XSS
  - CSRF
  - Broken authentication
- Role-Based Access Control (RBAC)
- Multi-Factor Authentication (if required)
- Session timeout controls
- Strong password policies

### b. Data Security

- Encryption in transit (TLS 1.2 or above)
- Encryption at rest (database & storage)
- Secure API authentication (OAuth2 / JWT)
- Secure file upload validation & virus scanning
- Data masking where applicable
- Secure backup and restore mechanisms

### c. Network & Infrastructure Security

- Firewall configuration
- Web Application Firewall (WAF)
- DDoS protection mechanisms
- IP whitelisting (if required)
- Secure hosting environment (Government/private cloud/on-prem as directed)
- Network segmentation (if applicable)
- Regular vulnerability assessments
- Security patch management

### d. Audit & Monitoring

- Complete audit logs (who, what, when)
- Log retention policy as per authority guidelines
- Real-time monitoring dashboards
- Intrusion detection alerts
- Incident response protocol

## 7. Integration Clauses

- The Contractor shall ensure full integration of the proposed system with all relevant internal and external platforms associated with IDEAS 2026
- The Contractor shall provide secure APIs and interoperability mechanisms to enable real-time data synchronization across all integrated systems
- All integrations must comply with applicable cybersecurity standards, data protection policies, and government regulations.
- No additional cost shall be charged for integrations explicitly mentioned within the scope of all TORs including sub modules

## 9. Testing & Quality Assurance

The vendor shall conduct:

- Unit testing
- Integration testing
- Load & stress testing
- Security testing (SAST/DAST)
- User Acceptance Testing (UAT)
- Penetration testing (if required by authority)

No system shall go live without formal UAT sign-off.

## 10. Deliverables

- Complete source code (frontend & backend)
- Database schema
- API documentation
- Deployment guidelines
- Security hardening checklist
- Test reports
- User manuals
- Training sessions for authorized staff
- 2026 Expo live support

Ownership of source code and intellectual property shall vest with the procuring authority.

Creation of entirely new modules or major system expansions shall require formal approval and financial renegotiation.

All changes shall follow documented change request procedures.

## 11. Acceptance Criteria

- Secure deployment with no critical vulnerabilities.
- All integrations functional.

- Successful load testing results.
- UAT approval.
- Compliance with cyber security requirements.

**Disclaimer:** The Terms of Reference (TORs) outlined above are comprehensive in nature. However, any additions, modifications, or refinements identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules, where deemed necessary, shall be undertaken during the consultation and refinement phase to ensure seamless system functionality without incurring any additional cost.

**Core Staffing Structure**

For the purpose of technical evaluation under the criterion relating to the bidder’s proposed team structure, key personnel, resource allocation and availability, each bidder shall propose a **core staffing structure** adequate to undertake the complete development, integration, testing, deployment, operations and maintenance training, and support of the required software systems under this RFP.

Bidders are also expected to deploy some essential personnel at DEPO office to manage day- to-day trouble shooting.

The Procuring Agency recognizes that this procurement is intended to remain reasonably accessible to capable firms in the local IT sector; accordingly, bidders shall not be required to maintain an unnecessarily large staffing pool, but shall be required to demonstrate a **fit-for-purpose core team** sufficient to deliver the full scope within the prescribed timelines, security standards, testing obligations, documentation requirements, training needs, and live support requirements set out in the RFP.

Each bidder is expected to propose a **core staffing structure** that is sufficient to meet the requirements of the SOW. Following is an indicative staffing expected under this RFP.

Key Position	Expectation
Project Manager / Delivery Lead	Experience in project management or delivery leadership role on comparable software/system implementation assignments
Solution Architect / Technical Lead	Solution architecture, technical lead, or enterprise application design role
Business Analyst / Functional Lead	Demonstrated experience in requirements gathering, process mapping, workflow design, and coordination with client/user departments
Backend Developer	Experience in enterprise application development, APIs, integrations, and backend services
Frontend Developer	Experience in responsive UI development, dashboards, forms, and frontend integration
Full Stack / Mobile Developer	Experience in full stack development and/or mobile application development
DevOps / Infrastructure / Database Engineer	Experience in CI/CD, deployments, hosting/infrastructure, database administration, backup/recovery, and environment management

Key Position	Expectation
QA / Test Engineer	Experience in test planning, system testing, regression testing, UAT support, and defect tracking
Cybersecurity Specialist	Experience in application security, hardening, vulnerability assessment, secure configuration, and security review
Support / Deployment Engineer	Experience in deployment support, go-live support, user issue resolution, training support, and system rollout activities

A Master's degree or higher in a relevant discipline shall be preferred for the Project Manager / Delivery Lead and Solution Architect / Technical Lead; however, candidates holding a Bachelor's degree with relevant professional experience in comparable assignments shall also be considered.

**CVs are required to be submitted for these key positions:**

- I. Project Manager / Delivery Lead
- II. Solution Architect / Technical Lead
- III. Business Analyst / Functional Lead
- IV. DevOps / Infrastructure / Database Engineer
- V. Cybersecurity Specialist



## **TERMS OF REFERENCE (TORs)**

### **Exhibitor Floor Management System (Frontend & Backend)**

### **International Defence Exhibition and Seminar (IDEAS) 2026**

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#### **1. Background**

For IDEAS 2026, effective management of exhibition halls, booth allocations, space planning, and exhibitor coordination is critical. A centralized Exhibitor Floor Management System (EFMS) is required to digitally manage floor layouts, stall allocation, booking status, utility requirements, and real-time monitoring of hall occupancy.

The system must be secure, scalable, and capable of handling high-profile defence exhibitors.

#### **2. Objective**

To design, develop, deploy and maintain a comprehensive Exhibitor Floor Management System with:

- Interactive Frontend Floor Visualization
- Secure Backend Admin Dashboard
- Real-time Stall Booking & Monitoring
- Integration with Registration & Badge Systems

#### **3. Scope of Work**

The vendor shall:

- Design interactive floor maps for all halls
- Develop backend allocation and approval modules
- Implement booking workflow automation
- Provide analytics and reporting tools
- Ensure secure deployment and maintenance

#### **4. Frontend Requirements**

##### **4.1 Interactive Floor Plan Interface**

The system must provide digital floor plans for each exhibition hall with:

- Clickable stalls/booths
- Color-coded status (Available / Reserved / Confirmed / Blocked)
- Stall size & pricing display
- Exhibitor name display (if booked)
- Zoom in/out functionality
- Search by exhibitor name or booth number

##### **4.2 Exhibitor Portal (Frontend)**

- Each exhibitor shall have access to:
- Login Dashboard
  - Booth Selection Request
  - View Booking Status
  - Upload Required Documents
  - Utility Requests (Electricity, Internet, Furniture)
  - Payment Status
  - Communication with Floor Admin

#### **4.3 Mobile Responsiveness**

- Fully responsive design
- Tablet friendly for on ground staff
- Compatible with modern browsers

### **5. Backend Requirements**

#### **5.1 Admin Dashboard**

Secure role-based backend including:

- Admin
- Floor Manager
- Finance Officer
- Technical Team

Features:

- Stall creation & editing
- Manual override allocation
- Bulk import of floor layout
- Drag & drop stall repositioning
- Approval/Rejection workflow
- Audit trail & activity logs

#### **5.2 Stall Management Module**

- Define stall sizes (e.g., 3x3m, 6x6m, custom size)
- Categorize stall types (Indoor / Outdoor / Pavilion / Premium Corner)
- Set pricing & discount policies
- Define hall zoning (Country Zone / Defence Sector Zone / Sponsor Zone)
- Track stall availability in real-time

#### **5.3 Hall Management Module**

- Multiple Hall Configuration

- Capacity Monitoring
- Utility Infrastructure Mapping
- Emergency Exit Mapping
- Fire & Safety Marking Layer

#### **5.4 Approval Workflow**

1. Exhibitor submits request
2. Floor Manager reviews
3. Finance verifies payment
4. Admin confirms allocation
5. System auto-updates floor map

#### **6. Analytics & Reporting**

System must provide:

- Hall occupancy percentage
- Revenue per hall
- Booth category breakdown
- Country participation analysis
- Downloadable Excel/PDF reports
- Real-time dashboard charts

#### **7. Integration Requirements**

The system must integrate with:

- Exhibitor Registration System
- Badge Printing System
- Help Desk & Ticketing System
- Access Control System
- Payment Gateway (if applicable)
- Email & SMS Gateway

#### **8. Security Requirements**

Due to defence sensitivity:

- SSL Encryption
- Multi-Factor Authentication (MFA)
- Database Encryption
- IP-based Admin Access
- Role-Based Access Control (RBAC)

- Regular Backup & Disaster Recovery
- OWASP compliance
- Pre-event penetration testing

### **9. Hosting & Infrastructure**

Vendor shall provide:

- Secure Cloud/Dedicated Hosting
- 99.5% uptime guarantee
- Load balancing capability
- Daily automated backups
- High availability configuration

### **10. Performance Requirements**

- Support minimum 5,000 concurrent users
- Real-time stall update without page reload
- Page load time < 3 seconds
- Scalable micro-service-based architecture preferred

### **11. Training & Documentation**

Vendor must provide:

- System Training for Floor Team
- Admin Manual
- Technical Documentation
- Source Code Handover
- System Architecture Diagram

### **12. Deliverables**

1. Interactive Floor Management Web Application
2. Exhibitor Portal
3. Admin Dashboard
4. Integrated Database
5. Reporting Module
6. Security Audit Report
7. Hosting Deployment

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation

and refinement phase to ensure seamless system functionality, without incurring any additional cost.

## **TERMS OF REFERENCE (TORs)**

### **Registration Management Module (Frontend & Backend)**

### **International Defence Exhibition and Seminar (IDEAS) 2026**

---

#### **1. Background**

For IDEAS 2026, a secure and centralized Registration Management Module (RMM) is required to handle:

- Visitor registration (Trade, Group, Individual)
- Stall builder
- Exhibitor staff registration
- Sponsor & Partner registration
- Event Registration upon discussion
- Integration with all modules requiring registration.
- Badge issuance and verification

The module must integrate with other IDEAS systems such as Visitor Management, Sponsor Management, Seminar Management, Badge Printing ensure seamless workflow, data consistency and real-time updates.

#### **2. Objective**

To design, develop, deploy and maintain a Registration Module that provides:

- Online registration for all participant categories
- Dynamic form management
- Secure back end for admin approval and verification
- Real-time reporting and analytic
- Integration with badge printing and access control systems

#### **3. Scope of Work**

The vendor shall:

- Develop Frontend Registration Portal for participants
- Develop Backend Admin Dashboard for verification and approval
- Integrate dynamic form handling and document uploads
- Provide automated notifications (email & SMS)
- Ensure data security and compliance

- Provide reporting & analytics capabilities

#### **4. FRONTEND REQUIREMENTS**

##### **4.1 Public Registration Portal**

- Secure login/registration page
- Select participant category:
  - Trade Visitor
  - Group Visitor
  - Exhibitor Staff
  - Sponsor/Partner
  - Seminar/Conference Attendee
- Fill dynamic forms per category
- Upload required documents (CNIC, Passport, Company ID, Payment proof)
- Real-time validation of inputs
- View application status (Pending, Approved, Rejected)
- Download digital badge or QR code
- Multilingual support (English mandatory)
- Mobile responsive design
- Automated email/SMS confirmations

##### **4.2 User-Friendly Features**

- Step-by-step guided registration
- CAPTCHA protection
- Excel/CSV bulk upload (for group registrations)
- Real-time slot availability (for seminars, workshops)

#### **5. BACKEND REQUIREMENTS**

##### **5.1 Admin & Verification Dashboard**

Role-Based Access Control (RBAC):

- Super Admin
- Verification Officer
- Finance Officer
- Event Coordinator
- Help Desk Operator

Functionalities:

- View pending applications

- Approve/Reject registrations
- Verify uploaded documents
- Manage category-wise participant quotas
- Track payments (if applicable)
- Assign badges & access privileges
- Send automated notifications
- Maintain audit logs

#### **5.2 Dynamic Form Management Module**

- Create/update registration forms per category
- Add/remove fields dynamically
- File upload validation (size/type)
- Conditional fields based on participant type
- Integration with other modules for data consistency

#### **5.3 Badge & QR Code Generation**

- Auto-generate unique QR code for each participant
- Badge template management (Name, Photo, Category, QR code)
- Integration with **Badge Printing System**
- Track issued badges

#### **5.4 Payment & Finance Module (if applicable)**

- Track registration payments per participant
- Payment gateway integration
- Generate receipts and invoices
- Automated reminders for pending payments
- Reconciliation reports

#### **5.5 Reporting & Analytics Module**

- Category-wise registration statistics
- Total registrations, approvals, rejections
- Peak registration hours & trends
- Exportable reports (Excel/PDF)
- Integration with AI Chatbot for FAQ queries

### **6. Integration Requirements**

The Registration Module must integrate with:

- Visitor Management System

- Exhibitor Floor Management System
- Seminar & Conference Management Module
- Sponsor & Partnership Management System
- Badge Printing System
- Automated Email Module
- AI Chatbot
- Payment Gateway (if applicable)

### **7. Security Requirements**

- HTTPS / SSL encryption
- Role-Based Access Control (RBAC)
- Two-Factor Authentication (2FA) for admins
- Secure storage of participant data
- Encrypted document uploads
- Audit trail for all actions
- OWASP compliance
- Pre-event penetration testing

### **8. Performance Requirements**

- Support 20,000+ concurrent registrations
- Real-time status updates for participants
- Page load time < 3 seconds
- Mobile responsiveness & accessibility
- 99.5% uptime during peak registration period

### **9. Hosting & Infrastructure**

- Secure Cloud/Dedicated Hosting
- Daily automated backups
- Disaster recovery plan
- High availability setup
- Load balancing during peak registration traffic

### **10. Training & Documentation**

- Admin & Verification Staff Training
- Technical Documentation
- User Guide for Participants

- Source Code Handover
- Maintenance & Support

### **11. Deliverables**

1. Frontend Registration Portal
2. Admin & Verification Dashboard
3. Dynamic Form Management Module
4. Badge & QR Code Module
5. Payment & Finance Module (if applicable)
6. Reporting & Analytics Module
7. Integration APIs
8. Security Audit Report
9. Hosting & Deployment Setup

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost.

## **TERMS OF REFERENCE (TORs) Automated Email Module (Frontend & Backend) International Defence Exhibition and Seminar (IDEAS) – 2026**

### **1. Background**

For IDEAS 2026, multiple digital systems (Visitor Management, Exhibitor Floor Management, Help Desk, Registration, Sponsorship, etc.) require automated, secure and traceable email communication.

A centralized Automated Email Module (AEM) is required to:

- Send transactional emails
- Send approval/rejection notifications
- Distribute event updates
- Send bulk announcements
- Provide system-triggered alerts

The module must integrate with all IDEAS digital platforms and ensure secure, high-volume, and reliable email delivery.

## 2. Objective

To design, develop, deploy and maintain a Centralized Automated Email Module that supports:

- Trigger-based email automation
- Bulk email campaigns
- Template management
- Email tracking & analytics
- Secure SMTP integration

## 3. Scope of Work

The vendor shall:

- Develop email automation engine
- Create admin template management system
- Integrate with IDEAS systems
- Configure SMTP / Email Server
- Implement tracking and reporting
- Ensure cybersecurity compliance

## 4. FRONTEND REQUIREMENTS

### 4.1 Email Template Design Interface

The system must provide a user-friendly interface to:

- Create email templates
- Edit subject lines
- Insert dynamic placeholders
- Upload logos & banners
- Preview email before sending
- Test send functionality

### 4.2 Frontend Functional Features

- WYSIWYG Email Editor
- Drag-and-Drop Content Blocks
- Header/Footer Customization
- Event Branding (IDEAS 2026 theme)
- Dynamic Variables Support (e.g., Name, Company, QR Code)
- Multilingual Template Support
- Responsive Email Design (Mobile Friendly)

## 5. BACKEND REQUIREMENTS

### **5.1 Email Automation Engine**

The backend must support:

- Event-based triggers (Registration, Approval, Rejection, Payment Confirmation, Badge Issuance)
- Scheduled Emails
- Recurring Campaigns
- Manual Broadcast Emails
- Queue-based Email Processing
- Retry mechanism for failed emails

### **5.2 Trigger-Based Email Workflows**

The system must automatically send emails when:

- User completes registration
- Application is approved/rejected
- Payment is confirmed
- Badge is generated
- Floor booth is allocated
- Help desk ticket is created/closed

### **5.3 Bulk Email Module**

- Filter recipients by category (Trade Visitor, Exhibitor, Sponsor, Group Visitor)
- Send targeted announcements
- CSV/Excel upload for external lists
- Rate limiting control
- Spam compliance measures

### **5.4 Email Tracking & Analytics**

The system must provide:

- Delivery Status (Sent, Delivered, Failed)
- Open Rate
- Click-Through Rate
- Bounce Tracking
- Unsubscribe Tracking
- Daily/Weekly Reports
- Exportable Reports (Excel/PDF)

### **5.5 Admin Dashboard**

Role-Based Access Control:

- Super Admin

- Communication Officer
- IT Administrator

Dashboard must display:

- Total Emails Sent
- Pending Queue
- Failed Emails
- Campaign Performance Charts
- System Health Status

### **6. Integration Requirements**

The Automated Email Module must integrate with:

- Visitor Management System
- Exhibitor Management System
- Floor Management System
- Help Desk & Ticketing System
- Payment Gateway
- Badge Printing System
- Email Server (e.g., Zimbra or equivalent)
- SMS Gateway (optional future extension)

### **7. Security Requirements**

Due to defence event sensitivity, the system must include:

- Secure SMTP with TLS
- DKIM, SPF & DMARC configuration
- Encrypted email queue storage
- Role-Based Access Control (RBAC)
- Multi-Factor Authentication (MFA)
- Audit Logs for all email activity
- IP Whitelisting (Admin Access)
- OWASP Compliance
- Protection against email spoofing

### **8. Performance Requirements**

- Capability to send 50,000+ emails per day
- High-speed queue processing
- Real-time email triggering (<5 seconds delay)

- 99.5% uptime during event period
- Scalable infrastructure

### **9. Hosting & Infrastructure**

Vendor shall provide:

- Dedicated Email Server or Cloud SMTP
- Backup SMTP configuration
- Load balancing (if required)
- Daily Backup & Disaster Recovery
- High availability configuration

### **10. Training & Documentation**

Vendor must provide:

- Admin Training for Communication Team
- Email Template Guidelines
- Technical Documentation
- System Architecture Diagram
- Source Code Handover
- Maintenance Support

### **11. Deliverables**

1. Fully Functional Automated Email Module
2. Template Management System
3. Email Trigger Engine
4. Bulk Campaign Module
5. Analytics & Reporting Dashboard
6. Security Configuration (SPF, DKIM, DMARC)
7. Integration APIs
8. Deployment & Hosting Setup

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost.

## **TERMS OF REFERENCE (TORs)**

## **Stall Builder Management System (Frontend & Backend) International Defence Exhibition and Seminar (IDEAS) 2026**

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### **1. Background**

For **IDEAS 2026**, exhibitors require structured coordination for stall construction, design approvals, technical drawings, electrical load requests, and compliance with venue safety standards.

A centralized **Stall Builder Management System (SBMS)** is required to digitally manage:

- Stall design submissions
- Contractor registrations
- Structural approvals
- Utility requests
- On-site construction scheduling
- Safety compliance verification

This system must integrate with the Exhibitor Floor Management and Visitor Management Systems.

### **2. Objective**

To design, develop, deploy, and maintain a secure and integrated **Stall Builder Management System** that enables:

- Online stall design submission
- Digital approval workflows
- Utility & service request management
- Contractor access control
- Real-time tracking & reporting

### **3. Scope of Work**

The vendor shall:

- Develop Stall Builder Portal (Frontend)
- Develop Admin & Technical Review Dashboard (Backend)
- Integrate with Floor Allocation System
- Enable document uploads (Drawings, Layouts, Certificates)
- Implement approval & inspection workflow
- Provide analytics & compliance reports

### **4. FRONTEND REQUIREMENTS**

#### **4.1 Exhibitor & Stall Builder Portal**

The portal must allow:

- Login (Exhibitor / Stall Contractor)

- Stall Information View (Booth No., Size, Hall)
- Upload Stall Design Drawings (PDF/DWG/JPG)
- Upload Structural & Electrical Layouts
- Upload Safety Certificates
- Request Utilities (Power Load, Internet, Water)
- Submit Construction Schedule
- Track Approval Status
- Receive Email Notifications

#### **4.2 Visual Stall Design & Layout Interface (Optional Advanced Feature)**

- 2D Stall Layout Preview
- 3D Visualization (Optional Phase 2)
- Dimensions Validation Tool
- Height Restriction Validation
- Hall Rule Compliance Alerts

### **5. BACKEND REQUIREMENTS**

#### **5.1 Admin Dashboard**

Role-Based Access Control (RBAC):

- Admin
- Floor Manager
- Technical Engineer
- Electrical Engineer
- Safety Officer
- Finance Officer

Dashboard must display:

- Total Stall Submissions
- Pending Approvals
- Rejected Designs
- Utility Load Requests
- Inspection Status
- Compliance Summary

#### **5.2 Stall Design Approval Workflow**

1. Exhibitor submits stall design
2. Technical Team reviews dimensions & structure

3. Electrical Team reviews power load request
4. Safety Officer verifies compliance
5. Finance verifies payment (if additional services requested)
6. Final Approval / Rejection with remarks
7. Automated email notification

#### **5.3 Contractor Management Module**

- Contractor Registration
- Upload Trade License
- Upload Insurance Documents
- Upload Safety Compliance Certificates
- Approval of Contractors
- Blacklist/Restriction Option

#### **5.4 Utility Management Module**

- Power Load Allocation (kW)
- Internet Port Allocation
- Water Connection Request
- Additional Furniture Request
- AC Load Management
- Automatic Load Capacity Monitoring per Hall

#### **5.5 On-Site Construction Monitoring Module**

- Construction Start & Completion Date Tracking
- Site Access Authorization
- QR-Based Contractor Entry
- Inspection Checklist Management
- Violation Reporting
- Incident Logging

#### **6. Integration Requirements**

The Stall Builder System must integrate with:

- Exhibitor Floor Management System
- Visitor Management System (for contractor access badges)
- Automated Email Module
- Help Desk & Ticketing System
- Access Control System

## **7. Security Requirements**

Due to defence-sensitive environment:

- HTTPS / SSL Encryption
- Role-Based Access Control
- Multi Factor Authentication
- Secure Document Storage (Encrypted)
- Audit Logs for design changes
- IP Whitelisting for Admin
- Data Backup & Disaster Recovery
- Pre-event penetration testing

## **8. Performance Requirements**

- Support 1000+ stall submissions
- Real-time approval updates
- File upload capacity up to 50MB per file
- Page load time < 3 seconds
- 99.5% uptime during event preparation period

## **9. Hosting & Infrastructure**

Vendor shall provide:

- Secure Cloud/Dedicated Hosting
- Daily Automated Backups
- High Availability Setup
- Load Balancer (if required)
- Disaster Recovery Plan

## **10. Reporting & Analytics**

System must provide:

- Hall-wise stall construction status
- Utility load consumption per hall
- Contractor compliance report
- Inspection status report
- Pending approval report
- Exportable reports (Excel/PDF)

## **11. Training & Documentation**

Vendor shall provide:

- Technical Staff Training

- Admin Manual
- Contractor User Guide
- System Architecture Diagram
- Source Code Handover
- maintenance support

## **12. Deliverables**

1. Stall Builder Portal (Frontend)
2. Admin & Review Dashboard (Backend)
3. Utility Request Module
4. Contractor Management Module
5. Inspection & Compliance Module
6. Reporting Dashboard
7. Security Audit Report
8. Hosting & Deployment Setup

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost.

## **TERMS OF REFERENCE (TORs) AI Chatbot System (Frontend & Backend) International Defence Exhibition and Seminar (IDEAS) 2026**

### **1. Background**

For IDEAS 2026, a smart AI Chatbot System is required to provide instant assistance to visitors, exhibitors, sponsors, and event staff. The system should offer:

- 24/7 query handling
- Automated FAQs
- Guidance on event schedule, hall layouts, booth information, registration, and other services
- Multi-channel support (Website, Mobile App, Kiosks)
- Integration with existing IDEAS digital platforms
- The AI Chatbot will reduce workload on Help Desk staff, improve user experience and provide analytics on visitor queries.

## **2. Objective**

To design, develop, deploy, and maintain a secure AI Chatbot System with:

- Natural Language Processing (NLP) capabilities
- Frontend conversational interface
- Backend knowledge management & analytics dashboard
- Integration with IDEAS systems for real-time information
- Multi-lingual support (English mandatory)

## **3. Scope of Work**

The vendor shall:

- Develop a Chatbot frontend (Website & App interface)
- Develop backend knowledge base & management dashboard
- Integrate AI/NLP engine
- Configure triggers for FAQs, registration guidance, floor navigation and event updates
- Provide analytics, monitoring, and reporting tools
- Ensure cybersecurity and data privacy compliance

## **4. FRONTEND REQUIREMENTS**

### **4.1 Chatbot Interface**

- Web Widget & Mobile App Interface
- Interactive Chat Window (Pop-up or embedded)
- Multi-language support (English mandatory)
- Typing indicator, quick reply buttons and suggested FAQs
- Searchable knowledge base suggestions
- Voice input & text input support (optional)
- Custom branding (IDEAS 2026 theme)

### **4.3 Frontend Functional Features**

- Instant FAQ retrieval
- Guided workflows (e.g., registration, floor navigation, exhibitor info)
- Suggest related topics
- Feedback collection from users
- Quick links to forms, downloads, and contacts
- Mobile responsive & accessible

## **5. BACKEND REQUIREMENTS**

### **5.1 Admin & Knowledge Management Dashboard**

Role-Based Access Control:

- Super Admin
- Content Manager
- Technical Support Officer
- Analytics Officer

Dashboard must include:

- Knowledge Base Management (FAQs, documents, links)
- AI Training & Model Updates
- User Query Logs
- Conversation Analytics
- Feedback & Ratings Dashboard
- Multi-language content management

#### **5.2 AI/NLP Engine Integration**

- Natural Language Understanding (NLU)
- Intent recognition
- Entity extraction
- Contextual responses
- Multi-turn conversation handling
- Continuous learning & model updates
- Integration with pre-defined triggers for event info

#### **5.3 Workflow & Automation**

- Automated responses for common queries
- Escalation to Help Desk for complex queries
- Integration with Event Modules:
  - Visitor Management
  - Exhibitor Floor Management
  - Sponsor Information
  - Event Schedule & Hall Layouts
- Real-time data fetch for dynamic responses

#### **5.4 Analytics & Reporting Module**

- Total queries handled
- Query category distribution
- Average response time

- User satisfaction rating
- Most common queries
- System performance logs
- Exportable reports (Excel/PDF)

### **6. Security Requirements**

- HTTPS / SSL encryption
- Role-Based Access Control (RBAC)
- Data encryption for conversation logs
- Two-Factor Authentication (2FA) for admin
- GDPR / local data protection compliance
- OWASP-compliant backend
- Penetration testing prior to event

### **7. Performance Requirements**

- Support minimum 10,000 concurrent users
- Response time < 2 seconds for common queries
- Real-time integration with backend databases
- Scalable architecture for peak traffic days
- 99.5% uptime during event

### **8. Hosting & Infrastructure**

- Secure Cloud or Dedicated Hosting
- Daily backups & disaster recovery plan
- High availability setup
- Load balancing for peak traffic
- Integration with SMTP/Email for escalations
- Optional integration with SMS gateway for alerts

### **9. Training & Documentation**

- Admin & Content Manager Training
- AI Model Training & Knowledge Base Guidelines
- Technical Documentation
- Source Code Handover
- Maintenance & Support

### **10. Deliverables**

1. AI Chatbot Frontend (Web & Mobile)
2. Admin & Knowledge Management Dashboard
3. AI/NLP Engine Integration
4. Workflow & Automation Module
5. Analytics & Reporting Module
6. Integration with IDEAS Systems (Visitor, Exhibitor, Sponsor, Email)
7. Security Audit Report
8. Hosting & Deployment Setup

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost.

***Terms of Reference (TORs)***  
**Event Management Module**

**(Gala Dinner, Tri-Services Show, Executive Golf Event & Seminar Management)**

**International Defence Exhibition & Seminar (IDEAS) 2026**

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*1. Background*

IDEAS 2026 includes multiple high-profile side events conducted alongside the main exhibition. These include:

Gala Dinner

Tri-Services Show

Executive Golf Tournament

**Seminars / Strategic Dialogues**

These events involve:

- VIP delegates
- Foreign dignitaries
- Defence officials
- Exhibitors
- Sponsors
- Government representatives
- Think tanks and defence analysts
- Media representatives

A dedicated **Event Management Module** is required to manage invitations, registrations, seating arrangements, seminar participation, access control, logistics coordination, protocol handling, and post-event reporting in a secure and structured digital environment.

The system must integrate with:

- Registration System
- Badge / Pass System
- Security Clearance Module
- Communication & Notification Modules

to ensure smooth coordination and high-level protocol compliance.

## **2. Objectives**

The Event Management Module aims to:

- Digitally manage invitations and confirmations
- Handle VIP protocol and seating arrangements
- Control access through **QR / Badge validation**
- Manage event capacity and attendance tracking
- Coordinate logistics for special events
- Manage seminar speakers, participants, and sessions
- Provide real-time monitoring dashboards
- Generate post-event analytics and reports

## **3. Scope of Work**

The system shall include:

- Frontend (User Interface for Admin & Participants)
- Backend (Database, Workflow Engine & Security Controls)

## **Functional Modules**

- Event Registration & Invitation Module
- Seating & Access Control System
- Event-Specific Management Modules
- **Seminar Management Module**
- Real-Time Dashboard & Reporting

## **4. Frontend TORs (User Interface Requirements)**

### **4.1 User Roles**

The system shall support the following roles:

- Admin
- Event Director
- Protocol Officer
- Security Officer
- Logistics Coordinator
- Sponsorship Manager

- Exhibitor
- VIP Delegate
- Guest / Invitee
- Golf Coordinator
- Tri-Services Operations Officer
- **Seminar Coordinator**
- **Speaker / Panelist**
- **Moderator**
- **Seminar Participant / Attendee**

#### ***4.2 Common Event Management Features (All Events)***

##### **4.2.1 Event Creation & Configuration**

Admin must be able to:

- Create event (Gala Dinner / Tri-Services Show / Executive Golf / Seminar)
- Define venue, date, time
- Set capacity limits
- Define attendee categories
- Assign security level
- Configure approval workflow

##### **4.2.2 Invitation & Registration Module**

- Digital invitation generation
- RSVP tracking (Accept / Decline / Pending)
- QR Code invitation pass
- Email / SMS notification
- Reminder notifications
- Approval workflow for restricted events
- Guest nomination by exhibitors/sponsors (if permitted)

##### **4.2.3 Access Control**

- QR Code scanning at entry
- Badge integration
- Real-time attendance dashboard
- VIP fast-track validation
- Blacklist / restricted access list
- Security clearance flagging

##### **4.2.4 Live Event Dashboard**

- Total invited vs confirmed
- Live attendance count
- VIP attendance tracking
- No-show list
- Capacity monitoring

## **5. Event-Specific Modules**

### **5.1 Gala Dinner Management Module**

#### **5.1.1 Seating & Table Management**

- Table layout creation
- Seat allocation (VIP priority)
- Drag-and-drop seating interface
- Table category tagging (VIP, Sponsors, Delegations)
- Seat reassignment control
- Printable seating plan

#### **5.1.2 Protocol Handling**

- Special guest marking (Minister, Service Chief, Ambassador)
- Seating protocol logic (hierarchy-based placement)
- Escort assignment
- Dietary preference capture
- Special security instructions

#### **5.1.3 Catering Coordination**

Meal category tracking

Dietary restrictions

Headcount confirmation for catering vendor

Final attendance export list

### **5.2 Tri-Services Show Module**

#### **5.2.1 Attendance & Zone Management**

- Define viewing zones
- Allocate seats / standing areas
- VIP enclosure management
- Service-wise guest tagging (Army / Navy / Air Force)

#### **5.2.2 Security & Clearance**

- Multi-level clearance tagging
- Access restriction by zone
- Escort required flag
- Live security attendance monitoring

#### **5.2.3 Show Schedule Management**

- Program timeline upload
- Segment timing
- Performer / Unit management
- Real-time show updates

### ***5.3 Executive Golf Tournament Module***

#### **5.3.1 Player Registration**

- Player profile creation
- Handicap entry
- Team allocation
- Flight grouping
- Sponsorship tagging

#### **5.3.2 Match Scheduling**

- Tee time allocation
- Automated grouping
- Course map display
- Scorecard generation

#### **5.3.3 Scoring & Leaderboard**

- Digital score entry
- Live leaderboard display
- Team & individual ranking
- Sponsor branding integration

### ***5.4 Seminar Management Module***

#### **5.4.1 Seminar Planning & Scheduling**

Admin must be able to:

- Create seminar sessions
- Define seminar topic and description
- Assign seminar hall / room
- Define date, start time, and end time
- Upload seminar agenda
- Limit seminar capacity

#### **5.4.2 Speaker & Panel Management**

System must support:

- Speaker profile management
- Panelist and moderator assignment
- Upload speaker biography and organization
- Session moderator designation
- Speaker scheduling across multiple sessions

Participants may include:

- Defence officials
- Military leadership
- Industry experts
- Defence manufacturers
- Strategic analysts
- Government representatives
- International delegates
- Media representatives

#### **5.4.3 Seminar Registration & Attendance**

- Online seminar registration
- Participant approval (if required)
- QR-based seminar entry validation
- Real-time attendance tracking
- Waitlist management for full sessions
- Badge integration for seminar access

#### **5.4.4 Seminar Session Management**

- Upload seminar presentations
- Display session schedule
- Manage panel discussions
- Live session updates
- Speaker coordination

#### **5.4.5 Seminar Feedback & Reporting**

- Digital feedback forms
- Participant satisfaction rating
- Session performance analytics
- Speaker engagement statistics
- Exportable attendance reports

### **6. Backend TORs (System & Technical Requirements)**

#### **6.1 System Architecture**

- Web-based centralized platform
- Role-Based Access Control (RBAC)
- Modular design

Secure API integration with:

- Visitor Registration System
- Badge / Pass System
- Security Clearance Module
- Email/SMS Gateway
- Mobile Applications

## 6.2 Database Requirements

System must store:

- Event records
- Invitation & RSVP data
- Seating allocations
- Security clearance status
- Attendance logs
- Golf scoring data
- Seminar sessions & speaker data
- Seminar attendance records
- Audit logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery setup

## 7. Analytics & Reporting Dashboard

Admin must view:

- Event-wise attendance summary
- VIP participation rate
- RSVP conversion rate
- No-show percentage
- Security clearance statistics
- Golf performance statistics
- Seminar attendance and engagement statistics

Charts Required:

- Bar Charts (Invited vs Attended)
- Pie Charts (Category distribution)
- Time-series graphs (Check-in flow)
- Leaderboard visualizations (Golf)
- Seminar participation charts

## 8. Non-Functional Requirements

- Mobile responsive interface
- Multi-language capability
- Cloud-ready scalable infrastructure
- Secure hosting environment
- Exportable reports (Excel / PDF)
- Audit-ready documentation

## 9. Deliverables

Vendor must provide:

- Complete Event Management Frontend
- Backend System & Database
- Gala Dinner Module
- Tri-Services Show Module
- Executive Golf Module
- Seminar Management Module
- QR-Based Access System
- Real-Time Admin Dashboard
- Technical Documentation
- User Training for IDEAS Team
- On-ground technical support during **IDEAS 2026**

## **Terms of Reference (TORs)**

### **Logistics Management System (LMS)**

### **International Defence Exhibition & Seminar 2026**

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#### **1. Background**

The platform will incorporate a dedicated Logistics Management System (LMS) to digitally manage international and local shipments, customs clearance coordination, NLC transport linkage, warehouse tracking, hall-wise delivery monitoring, and reverse logistics. Cargo arriving from abroad.

- Customs clearance coordination
- Liaison with NLC (National Logistics Cell)
- Local transportation within Pakistan
- Warehouse handling and tracking
- Delivery to Karachi Expo Centre halls and stalls
- Reverse logistics after exhibition

The system must ensure security compliance, real-time tracking, documentation control, and coordination among stakeholders including customs authorities, freight forwarders, exhibitors, sponsors, and transport agencies.

#### **2. Objectives**

The objective of the Logistics Management System is to:

- Digitally manage international and local shipments
- Track cargo clearance through Pakistan Customs
- Coordinate transport with NLC and private logistics vendors
- Monitor hall wise delivery status
- Maintain documentation audit trail
- Provide real-time tracking dashboard
- Ensure high security handling (Defence Exhibition compliance)

### **3. Scope of Work**

The system shall consist of:

- Frontend (User Interface)
- Backend (Application Logic & Database)
- Admin Control Panel
- Security & Audit Logs
- Reporting & Analytics Dashboard

### **4. Frontend TORs (User Interface Requirements)**

#### **4.1 User Roles (Frontend Access)**

- Admin
- Logistics Admin
- Customs Liaison Officer
- NLC Coordinator
- Exhibitor
- Sponsor
- Warehouse Manager
- Transport Supervisor
- Security Officer

#### **4.2 Shipment Registration Interface International Shipment Module**

- Shipment creation form:
  - Exhibitor Name
  - Country of Origin
  - Bill of Lading Number
  - Airway Bill Number
  - HS Code
  - Cargo Description
  - Weight & Volume
  - Dangerous/Restricted item indicator
  - Expected Arrival Date
  - Port of Entry (Karachi Port / Airport)
- Upload Documents:
  - Commercial Invoice

- Packing List
- Import Permit
- NOC (if required)
- Insurance Documents
- Status Tracker (Visual Progress Bar):
- Shipment Registered
- Arrived at Port
- Customs Inspection
- Cleared
- Handed to NLC
- Delivered to Expo Hall
- Installed at Stall

#### **4.3 Customs Clearance Tracking Dashboard**

- Real-time clearance status
- Remarks by Customs Officer
- Required additional documents
- Clearance delays alerts
- Digital approval workflow

#### **4.4 NLC Coordination Module**

- Assign shipment to NLC
  - Vehicle allocation details
  - Driver details
  - Dispatch time
  - Estimated arrival at Expo
  - Live tracking integration
  - Delivery confirmation upload
- #### **4.5 Local Logistics Module**
- Local vendor allocation
  - Warehouse receipt entry
  - Internal movement tracking (Warehouse → Hall → Stall)
  - Reverse logistics scheduling

#### **4.6 Warehouse Management (Frontend)**

- Inbound inventory record
- Storage location tagging
- QR / Barcode scanning support
- Damage reporting interface
- Security verification logs

#### **4.7 Hall Delivery Monitoring**

- Hall-wise shipment dashboard:
  - Hall 1 – Delivered Items
  - Hall 2 – Pending Deliveries
  - Stall-level breakdown
- Heatmap view of deliveries
- Delivery confirmation by exhibitor

#### **4.8 Reverse Logistics Module**

- Dismantling schedule
- Outbound customs clearance
- Re-export documentation
- Local return shipments
- Tracking until final exit

#### **4.9 Alerts & Notifications**

- Customs delay alerts
- Missing documents alerts
- Delivery delay alerts
- SMS/Email notifications
- Security clearance warnings

#### **4.10 Reports & Export**

- Shipment summary report
- Customs clearance report
- NLC movement report
- Hall delivery report
- Reverse logistics report
- Export to Excel/PDF

## **5. Backend TORs (System & Technical Requirements)**

### **5.1 System Architecture**

- Web-based centralized system
- Role-based access control (RBAC)
- Modular architecture
- API-ready for:
  - Customs integration (if available)
  - NLC tracking API
  - Email/SMS gateway

### **5.2 Database Management**

Database must store:

- Shipment records
  - Customs clearance status
  - Transport details
  - Warehouse inventory logs
  - Audit trail logs
  - Document repository (secure storage)
  - User management data
- Backup Policy:
- Daily incremental backup
  - Weekly full backup
  - Disaster recovery plan

### **5.3 Customs Workflow Engine**

Backend must support:

- Document validation workflow
- Approval/rejection logic
- Escalation hierarchy
- Automated status updates
- Delay flagging system

### **5.4 Security & Compliance**

- SSL encryption
- Multi-Factor Authentication (MFA)
- Data encryption at rest
- IP-based access restriction
- Full activity audit logs

- High-security compliance (Defence Exhibition Standard)

#### **5.5 Audit & Logging System**

- User activity logs
- Shipment status changes log
- Document upload history
- Login/logout tracking
- Admin modification tracking

Logs must be:

- Tamper-proof
- Exportable
- Searchable

#### **5.6 Performance Requirements**

- Support 1,000+ concurrent users
- Real-time dashboard refresh
- Response time < 3 seconds
- 99.5% uptime during exhibition

#### **5.7 Integration Requirements**

System must support integration with:

- Visitor Management System
- Exhibitor Management System
- Stall Builder Module
- Auto Email Module
- Help Desk System
- Badge System (for logistics passes)

#### **5.8 Analytics Dashboard (Admin View)**

- Total international shipments
- Pending customs clearance
- Delivered shipments
- Hall-wise delivery percentage
- Average clearance time
- NLC performance metrics

Charts required:

- Bar Charts

- Pie Charts
- Timeline Graphs

### **6. Non-Functional Requirements**

- Mobile responsive interface
- Multi-language support (English primarily)
- Scalable infrastructure (Cloud-ready)
- High availability server
- Secure hosting environment
- Data retention policy compliance

### **7. Deliverables**

Vendor must provide:

1. Complete Frontend Interface
2. Fully functional Backend System
3. Admin Dashboard
4. API Integration capability
5. Security & Compliance Implementation
6. User Manual
7. Technical Documentation
8. Training for DEPO / IDEAS Team
9. Post-deployment support during IDEAS 2026

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost.

### ***Terms of Reference (TORs)***

#### ***Vehicle Access & Smart Parking Management System (VSPMS) International Defence Exhibition & Seminar (IDEAS) 2026***

##### ***1. Background***

The International Defence Exhibition & Seminar (IDEAS 2026) requires a centralized Vehicle Access & Smart Parking Management System to manage secure entry, controlled movement, and organized parking of vehicles within and around the Expo venue.

The system must manage:

- VIP / VVIP motorcades
- Foreign delegations
- Exhibitor & Sponsor vehicles
- Trade visitors (pre-approved vehicles)
- Organizing staff vehicles
- Logistics vehicles (restricted access)
- Shuttle & operational vehicles
- Security & escort vehicles

Given the high-security nature of a defence exhibition, the system must ensure vehicle accreditation, controlled gate entry, smart parking allocation, real-time monitoring, and strict compliance with security protocols.

## **2. Objectives**

The Vehicle Access & Smart Parking Management System aims to:

- Digitally register and accredit vehicles
- Issue vehicle access permits (QR / RFID based)
- Manage gate entry validation
- Allocate parking zones based on category
- Monitor real-time parking occupancy
- Track vehicle entry & exit timestamps
- Ensure VIP/VVIP priority access
- Prevent unauthorized vehicle access
- Provide analytics on parking utilization

## **3. Scope of Work**

The system shall include:

- Frontend (Admin & User Interface)
- Backend (Application Logic & Database)
- Vehicle Accreditation Module
- Smart Parking Allocation Engine
- Gate Access Control System
- Real-Time Monitoring Dashboard
- Reporting & Analytics Module

## **4. Frontend TORs (User Interface Requirements)**

### **4.1 User Roles**

- Super Admin
- Parking Admin
- Security Officer
- Gate Operator
- Protocol Officer
- Exhibitor
- Sponsor
- VIP/VVIP Coordinator
- Staff Vehicle Coordinator

### **4.2 Vehicle Registration & Accreditation Module**

**Vehicle Registration Form Fields:**

- Owner Name
- Badge ID / Registration ID
- Category:
  - VIP
  - VVIP
  - Exhibitor
  - Sponsor
  - Staff
  - Trade Visitor

Logistics

- Vehicle Number
- Vehicle Type (Sedan / SUV / Bus / Armored / Truck)
- Driver Name
- Driver CNIC / Passport
- Security Clearance Level
- Validity Period
- Upload Vehicle Documents (Registration, Insurance)

System must:

- Generate digital vehicle pass (QR / RFID)
- Assign access level (Zone-based)
- Define entry gate permission
- Prevent duplicate vehicle registration
- Send approval notification

**4.3 Smart Parking Zone Management**

Admin must configure:

• Parking zones:

- VIP Zone
- VVIP Secure Zone
- Exhibitor Parking
- Visitor Parking
- Logistics Yard
- Shuttle Parking
- Staff Parking

- Zone capacity limits
- Reserved slots
- Restricted zones
- Time-based access control

System must:

- Show real-time occupancy per zone
- Auto-assign parking slot based on category
- Prevent over-capacity allocation
- Enable manual override by admin

#### **4.4 Gate Access Control Module**

- QR code scanning at entry
- RFID reader integration (if installed)
- Automatic gate log entry
- Entry & exit timestamp recording
- Access denial alert
- Blacklist vehicle flagging
- Suspicious vehicle alert

Gate dashboard must show:

- Vehicles inside premises
- Overstaying vehicles
- VIP vehicle entry tracking
- Real-time queue status

#### **4.5 VIP / VVIP Motorcade Management**

- Dedicated secure entry gate
- Pre-approved convoy vehicle list
- Motorcade tagging
- Priority parking allocation
- Escort vehicle grouping
- Secure route designation
- Emergency override access

#### **4.6 Real-Time Parking Dashboard**

Dashboard must display:

- Total registered vehicles
- Active vehicles inside venue
- Zone-wise occupancy %
- Entry vs Exit trends
- VIP movement status
- Peak hour traffic analytics

Map View:

- Visual parking layout
- Occupied vs available slots
- Restricted areas
- Security sensitive zones

#### **4.7 Overstay & Violation Monitoring**

- Parking duration tracking
- Overstay alerts
- Unauthorized zone entry alerts
- Expired permit alerts
- Violation logging system

#### **4.8 Alerts & Notifications**

- Permit approval alerts
- Entry denial alerts
- Over-capacity warnings

- VIP arrival notifications
- Emergency evacuation alert capability

Notification channels:

- SMS
- Email
- Admin dashboard alerts

#### **4.9 Reports & Export**

- Daily vehicle entry report
- Zone occupancy report
- VIP vehicle summary
- Violation report
- Overstay report
- Gate-wise activity report
- Export to Excel / PDF

### **5. Backend TORs (System & Technical Requirements)**

#### **5.1 System Architecture**

- Centralized web-based system
- Role-Based Access Control (RBAC)
- Modular architecture
- API-ready for hardware integration
- Cloud-deployable infrastructure
- Mobile-friendly interface

#### **5.2 Database Requirements**

System must store:

- Vehicle profiles
- Driver profiles
- Access permissions
- Entry & exit logs
- Zone allocation records
- Parking occupancy logs
- Violation records
- Audit logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan

#### **5.3 Smart Allocation Engine**

Backend must:

- Auto-assign parking based on:
  - Category priority
  - Zone capacity
  - Security level
  - Prevent duplicate slot allocation

- Detect capacity overflow
- Flag restricted access attempts

#### **5.4 Hardware & Integration Support**

System must support integration with:

- QR scanners
- RFID readers
- Automatic barrier gates
- CCTV monitoring system
- ANPR (Automatic Number Plate Recognition) – if available

#### **5.5 Security Requirements**

- SSL encryption
- Two-Factor Authentication (Admin)
- Data encryption at rest
- IP-based admin restriction
- Audit-ready logging
- Defence-standard security compliance

#### **5.6 Performance Requirements**

- Support 5,000+ vehicle records
- Real-time gate validation under 2 seconds
- Dashboard refresh under 3 seconds
- 99.5% uptime during exhibition

#### **5.7 Integration Requirements**

System must integrate with:

- Visitor Management System
- Registration & Accreditation Module
- Badge System
- Protocol Management System
- Logistics Management System
- Help Desk System
- Security Command Dashboard

### **6. Analytics Dashboard**

Admin must view:

- Total registered vehicles
- Vehicles currently inside
- Peak entry hours
- Zone utilization percentage
- VIP/VVIP movement trends
- Overstay statistics
- Gate congestion metrics

Charts Required:

- Bar charts
- Pie charts

- Line graphs
- Real-time parking heatmap

#### **7. Non-Functional Requirements**

- Mobile responsive interface
- Cloud-ready architecture
- High availability server
- Secure hosting environment
- Data retention compliance
- Multi-language support (English mandatory)

#### **8. Deliverables**

Vendor must provide:

1. Complete Frontend UI
2. Backend System
3. Gate Access Integration
4. Smart Parking Allocation Module
5. Real-Time Monitoring Dashboard
6. Security & Audit System
7. Technical Documentation
8. User Manual
9. Training for IDEAS/DEPO staff
10. On-site technical support during IDEAS 2026

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost.

### ***Terms of Reference (TORs)***

#### ***Delegation Handling***

#### **International Defence Exhibition & Seminar (IDEAS) 2026**

##### **1) Background & Purpose**

The Defence Expo requires a secure, role-based Delegation Handling System to manage delegation registration, approvals, scheduling, protocol coordination, access/entry, meeting requests, and real-time coordination. This ToR covers frontend development (web + optional mobile/PWA) including UI/UX design and implementation.

##### **2) Objectives**

- Deliver a modern, fast, accessible, multilingual user interface for all stakeholders.
- Provide an operator-friendly dashboard for high-volume event operations.
- Ensure consistent UX across roles, devices, and workflows.
- Integrate seamlessly with backend APIs and security controls.

##### **3) Scope of Work (Frontend)**

- **A. UX Research & Flows**
- Stakeholder mapping and workflow discovery for:
  - Delegations (local/foreign), protocol officers, security/entry, ops control room, organizers, admin users.
- User journey maps + service blueprints (as needed).
- Approval flows, exception handling, and escalation UX.
- **B. UI/UX Design Deliverables**
- Information Architecture (IA) + navigation model.
- Wireframes (low → high fidelity).
- UI style guide (typography, spacing, components, icons).
- Design system/component library (Figma or equivalent).
- Responsive layouts: desktop (operations), tablet (field), mobile (basic).
- **C. Frontend Development**
- Role-based portals (examples):
  - **Admin Portal** (master data, user roles, configurations)
  - **Protocol Portal** (arrival/departure, hotel, transport, liaison assignment)
  - **Security/Entry Portal** (verification, badges, QR scan, live status)
  - **Organizer/Ops Dashboard** (KPIs, queues, incidents, alerts)
  - **Delegation Self-Service** (registration, document upload, meeting requests)
- Key UI modules:
  - Registration & profile management (multi-step forms)
  - Document upload UI (with file rules, preview, status)
  - Approval and review screens (checklists + notes)
  - Scheduling UI (calendar, meeting requests, time slots)
  - Transport & logistics UI (vehicle/route assignment, manifests)
  - Badge/QR display & printing triggers (integration hooks)
  - Notifications center (email/SMS/in-app, read receipts)
  - Live status boards (arrivals, check-ins, queue states)
  - Audit-view UI (who did what, when) – read-only display
- Accessibility & usability:
  - WCAG-aligned basics, keyboard navigation, readable contrast
  - Form validations, inline guidance, clear error messages

- Multilingual support (minimum):
  - English + Urdu (toggle), RTL handling for Urdu
- **D. Integration & Testing**
- API integration with backend (REST/GraphQL as decided).
- Frontend security:
  - Token handling, session timeouts, CSRF protection approach (as applicable)
  - No sensitive data in logs/local storage beyond policy
- Testing:
  - Unit tests, UI smoke tests, regression checklist
  - Cross-browser testing (Chrome/Edge/Firefox latest)
  - Device responsiveness tests (common resolutions)
- **4) Technical Requirements (Frontend)**
- Framework: React / Angular / Vue (as approved); recommended: React + TypeScript.
- Performance targets:
  - Dashboard load time within acceptable SLA under event load.
  - Efficient pagination, server-side filtering, caching strategy where appropriate.
- Logging/analytics hooks (non-sensitive):
  - Page performance, user actions (as permitted), error reporting.
- **5) Deliverables**
- UX package: journeys, wireframes, clickable prototype.
- UI kit/design system + reusable components.
- Complete frontend codebase + build pipeline instructions.
- Configurable environment setup (dev/stage/prod).
- Test cases + test reports + UAT support.
- User manuals / quick guides (role-wise).
- Handover + training session(s).
- **6) Acceptance Criteria (Frontend)**
- All role-based screens implemented and verified by UAT.
- UX approved by designated authority (protocol + ops + security).
- Responsive design works across agreed devices.
- No critical/high security findings (frontend-related).
- Meets performance, usability, and accessibility baselines.

## 7) KPIs (Frontend)

- Task completion time reduced for key workflows (registration review, check-in).
- Operator error rate reduced (validation + confirmation patterns).
- Page load time and dashboard responsiveness within agreed SLA.
- UAT pass rate (e.g.,  $\geq 95\%$  test cases passed).

## Backend for Delegation Handling System

### 1) Background & Purpose

This ToR covers the **backend services** for the Delegation Handling System to ensure secure data management, approvals, scheduling, integrations, auditability, and high availability during the expo.

### 2) Objectives

- Provide a secure, scalable backend supporting **high concurrency** during event days.
- Implement full **role-based access control**, workflow approvals, and audit trails.
- Enable integrations (badge printing, QR scanning, email/SMS, identity verification if applicable).
- Ensure data integrity, traceability, and reporting.

### 3) Scope of Work (Backend)

#### A. Core Modules

1. **User & Role Management**
  - RBAC/ABAC (roles + permissions + attributes)
  - MFA support (if required)
  - User provisioning, password policy, sessions, lockouts
2. **Delegation Registration & Profile**
  - Delegation/individual profiles, categories, visit purpose
  - Document management (uploads, versioning, status)
  - Risk/verification fields (as permitted by policy)
3. **Approval Workflow Engine**
  - Multi-stage approvals (Protocol → Security → Admin etc.)
  - SLA timers, escalation rules, reason codes, notes
  - Exception handling / overrides with audit
4. **Scheduling & Meetings**
  - Calendar, time slots, meeting requests, confirmations
  - Conflict detection and rescheduling controls

## 5. Logistics

- Arrival/departure manifests, transport assignment
- Hotel/route allocation (as per authority scope)

## 6. Badge/QR & Entry Support

- QR generation/validation
- Badge status lifecycle (issued/revoked/reprinted)
- Entry logs (time, gate, operator device)

## 7. Notifications

- Templates + multilingual content
- Email/SMS/in-app notifications
- Delivery status tracking

## 8. Reporting & Dashboards

- Operational reports, KPIs, export (PDF/CSV)
- Audit logs export for authorized users

### B. Integrations (as applicable)

- Badge printing system integration.
- QR scanning device/app integration.
- Email gateway and SMS aggregator integration.
- External identity/visa/clearance systems (only if authorized).

### C. Security, Compliance and Audit

- Data classification and access policies aligned with authority requirements.
- Encryption:
  - In transit (TLS)
  - At rest (DB + object storage)
- Centralized audit logging:
  - Who/what/when/where, before/after for critical changes
- Rate limiting, IP allowlisting (if required), WAF readiness.
- Secure file upload handling:
  - Virus scan hook, file type/size restrictions, signed URLs.
- Backups, retention, and restore drills.

### D. Non-Functional Requirements

- Availability plan for event days (monitoring + alerting + failover).

- Performance under peak load:
  - concurrent registrations, approvals, check-ins
- Database design:
  - normalized schema + indexes for search & filters
- Search:
  - fast search by delegation name, passport/ID (if permitted), badge ID, QR, meeting slots
- Observability:
  - structured logs, metrics, tracing, health endpoints

#### **4) Technical Requirements (Backend)**

- Architecture: modular monolith or microservices (as approved).
- API: REST (recommended) with OpenAPI/Swagger documentation.
- Auth: OAuth2 / OIDC / JWT (as approved).
- Storage:
  - Relational DB (PostgreSQL/MySQL/SQL Server) + object storage for documents.
- Deployment:
  - On-prem / private cloud / government cloud as directed.
  - CI/CD with environment separation (dev/stage/prod).

#### **5) Deliverables**

- Backend codebase + configuration templates.
- Database schema + migrations + seed scripts.
- API documentation (OpenAPI) + Postman collection.
- Admin configuration guide.
- Security hardening checklist + evidence of controls.
- Monitoring dashboards + alert rules (basic).
- Backup/restore SOP + DR plan (proportionate to scope).
- Training + handover + source code escrow/ownership terms (as per procurement).

#### **6) Acceptance Criteria (Backend)**

- All core modules operational end-to-end with frontend.
- All workflows (registration → approvals → scheduling → badge → entry logs) validated in UAT.
- Audit logging complete for critical events.

- Security testing completed (SAST/DAST or equivalent) with no critical issues.
- Performance tests meet agreed thresholds.
- Successful backup + restore test.

#### **7) KPIs (Backend)**

- API uptime during event window (target as agreed).
- Average API response time under load (target as agreed).
- Successful notification delivery rate.
- Zero data loss incidents; audit completeness for critical actions.
- Reduction in manual coordination time (measured by ops).

#### **Common Notes (Include in Both ToRs)**

- **Ownership:** Source code, designs, and documentation to remain the property of the procuring authority (as per contract).
- **Confidentiality:** NDA + restricted access; no third-party sharing without approval.
- **Data Residency:** As per government/defence policy (hosting + backups).
- **Training:** Role-based training for admin, protocol, security, ops.
- **Support:** Event-time on-call support and defect resolution window.

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### **Terms of Reference (TORs)**

#### **Media & Public Relations Management System (MPRMS) International Defence Exhibition & Seminar 2026**

##### **1. Background**

The International Defence Exhibition & Seminar (IDEAS 2026) requires a centralized Media & Public Relations Management System (MPRMS) to manage:

- Local & international media accreditation
- Press registrations and approvals
- Media passes & badge issuance
- Press conferences & briefings
- Official press releases
- Live media coverage coordination

- Social media publishing
- Media monitoring & reporting

As IDEAS is a high-security defence exhibition, media access must be strictly controlled, verified, and monitored in coordination with security agencies and protocol teams.

## **2. Objectives**

The Media Management System aims to:

- Digitally manage journalist accreditation
- Approve or reject media access based on clearance
- Track media movements and hall access
- Manage press conferences and media events
- Publish and archive official press releases
- Monitor national & international coverage
- Provide real-time media analytics

## **3. Scope of Work**

The system shall include:

- Frontend (Web-based Media Portal)
- Backend (Admin & Security Panel)
- Accreditation Workflow Engine
- Press Conference Module
- Media Monitoring Dashboard
- Analytics & Reporting Module

## **4. Frontend TORs (User Interface Requirements)**

### **4.1 User Roles (Frontend Access)**

- Super Admin
- Media Admin
- Accreditation Officer
- Security Clearance Officer
- Protocol Officer
- Journalist / Media Representative
- Social Media Manager
- Press Conference Coordinator

### **4.2 Media Registration Portal Online Accreditation Form**

- Media House Name

- Journalist Name
- CNIC / Passport
- Nationality
- Designation
- Contact Information
- Press Card Upload
- Assignment Letter Upload
- Previous Coverage Experience
- Photograph Upload

System must:

- Validate required fields
- Prevent duplicate registration
- Generate reference tracking number
- Send automated confirmation email

#### **4.3 Accreditation Workflow**

Application Status Stages:

- Submitted
- Under Review
- Security Verification
- Approved
- Rejected
- Badge Issued

Features:

- Multi-level approval system
- Security clearance flag
- Remarks section
- Document verification panel
- Digital approval record

#### **4.4 Media Badge Management**

- Approved media badge generation
- QR code integration
- Category tagging (Print, TV, Digital, International)
- Access zone control (Hall-specific)

- Badge print history log

#### **4.5 Press Conference Management Module**

- Create press event:
  - Title
  - Speaker details
  - Date & time
  - Venue/Hall
  - Capacity
- Invite accredited journalists
- RSVP tracking
- Attendance tracking (QR Scan)
- Media kit upload (PDF, Images, Videos)

#### **4.6 Press Release Management**

- Draft press releases
- Approval workflow before publishing
- Scheduled publishing
- Multi-language support
- Archive section
- Download tracking

#### **4.7 Social Media Integration**

- Link official accounts
- Schedule posts
- Track engagement (likes, shares, comments)
- Real-time post performance dashboard

#### **4.8 Media Monitoring Module**

- Coverage log entry
- Upload news clippings
- TV coverage tracking
- International media tracking
- Sentiment tagging (Positive / Neutral / Negative)
- Coverage impact rating

#### **4.9 Live Media Dashboard**

- Total accredited journalists

- On-site active journalists
- Press events scheduled
- Media attendance
- Real-time hall access monitoring

#### **4.10 Reports & Export**

- Accreditation summary report
- Media category breakdown
- Country-wise media participation
- Press conference attendance report
- Media coverage analysis report
- Social media analytics report
- Export to Excel / PDF

### **5. Backend TORs (System & Technical Requirements)**

#### **5.1 System Architecture**

- Centralized secure web-based system
- Role-Based Access Control (RBAC)
- API-ready structure
- Scalable cloud deployment

#### **5.2 Database Requirements**

System must store:

- Media registration records
- Uploaded documents
- Approval history logs
- Badge issuance logs
- Press event data
- Media coverage logs
- Social media analytics
- Audit logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan

#### **5.3 Accreditation Workflow Engine**

- Backend must:
- Support multi-level approvals
  - Log all decision actions
  - Flag high-risk profiles
  - Restrict approval authority levels
  - Generate automated notifications

#### **5.4 Security & Compliance**

Due to defence nature of event:

- SSL encryption
- Two-Factor Authentication (Admin & Security)
- Encrypted document storage
- IP-based admin restriction
- Full activity audit logs
- Secure badge QR validation
- Data retention policy compliance

#### **5.5 Access Control Integration**

System must integrate with:

- Visitor Management System
- Registration Module
- Badge Printing System
- Access Control Gates
- AI Chatbot (for media queries)
- Auto Email Module
- Help Desk System

#### **5.6 Performance Requirements**

- Support 1,500+ media applications
- Real-time approval processing
- Dashboard response time < 3 seconds
- 99.5% uptime during IDEAS 2026

#### **5.7 Analytics Dashboard (Admin)**

Admin must view:

- Total registered journalists
- Approved vs rejected
- Country-wise participation

- Media category distribution
- Press conference attendance %
- Coverage sentiment analysis
- Social media reach & engagement

Charts Required:

- Bar charts
- Pie charts
- Line graphs
- Time-series engagement graphs

#### **6. Non-Functional Requirements**

- Mobile responsive design
- Multi-language capability
- Secure cloud hosting
- High availability infrastructure
- Data privacy compliance
- Audit-ready documentation

#### **7. Deliverables**

Vendor shall provide:

1. Complete Frontend Portal
2. Backend Admin System
3. Accreditation Workflow Engine
4. Badge Integration
5. Press Conference Module
6. Social Media Integration
7. Analytics Dashboard
8. Technical Documentation
9. User Manual
10. Training for IDEAS/DEPO team
11. On-site support during exhibition

### **Terms of Reference (TORs)**

### **Security & Incident Management System (SIMS) International Defence Exhibition & Seminar 2026**

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## 1. Background

The International Defence Exhibition & Seminar (IDEAS 2026) is a high-profile defence exhibition requiring stringent security protocols. A centralized Security & Incident Management System (SIMS) is required to monitor, record, respond to, and analyze:

- Security incidents
- Access violations
- Suspicious activities
- Medical emergencies
- Fire and safety alerts
- Lost & found cases
- Crowd control issues
- VIP/VVIP security events

The system must support real-time coordination between Security Teams, Control Room, Law Enforcement, Emergency Services, and Event Management Authorities, ensuring rapid response and full audit traceability.

## 2. Objectives

The Security & Incident Management System aims to:

- Digitally log and track all incidents
- Enable rapid response coordination
- Provide real-time security dashboard
- Integrate with CCTV and Access Control
- Track suspicious or blacklisted individuals
- Maintain audit logs for post-event review
- Generate security intelligence analytics

## 3. Scope of Work

The system shall include:

- Frontend (Security Operations Interface)
- Backend (Incident Workflow & Database Engine)
- Real-Time Monitoring Dashboard
- Access Control Integration
- Emergency Response Coordination Module
- Reporting & Analytics

## 4. Frontend TORs (User Interface Requirements)

### 4.1 User Roles

- Super Admin

- Security Admin
- Control Room Officer
- Incident Response Officer
- Hall Security Supervisor
- Medical Response Team
- Fire Safety Officer
- Law Enforcement Liaison
- Protocol Officer

#### **4.2 Incident Reporting Module**

##### **Incident Logging Form**

- Incident ID (auto-generated)
- Incident Type:
  - Security breach
  - Unauthorized access
  - Medical emergency
  - Fire alarm
  - Lost person
  - Suspicious package
  - Equipment damage
  - Crowd disturbance
- Location (Hall / Zone)
- Date & Time
- Person(s) involved
- Badge ID (if applicable)
- Description
- Upload evidence (Photo / Video / Document)
- Priority Level (Low / Medium / High / Critical)

System must allow quick-entry interface for rapid logging.

##### **4.3 Real-Time Incident Dashboard**

Dashboard must display:

- Active incidents
- Critical alerts (red highlight)
- Hall-wise incident map

- Response team assignment
- Incident resolution status
- Time-to-response counter

#### **4.4 Emergency Alert Module**

- Panic button (Control Room use)
- Mass alert notification (SMS/Email/Screen popup)
- Emergency broadcast message
- Evacuation notice trigger
- Zone-specific alert targeting

#### **4.5 Response Team Assignment**

- Assign security personnel
- Assign medical team
- Assign fire response team
- Track arrival time
- Mark incident as contained/resolved
- Add resolution remarks

#### **4.6 Access Violation Monitoring**

- Real-time QR scan rejection alerts
- Blacklisted badge detection
- Duplicate entry detection
- Zone restriction violation alerts
- Suspicious movement flagging

#### **4.7 CCTV Integration View (Optional)**

- Link incident to camera ID
- View snapshot reference
- Store incident timestamp
- Evidence upload link

#### **4.8 VIP/VVIP Security Monitoring**

- Dedicated VIP movement log
- Escort tracking
- Restricted zone monitoring
- Special incident classification
- Confidential report tagging

#### **4.9 Lost & Found Module**

- Item registration
- Photo upload
- Owner verification
- Handover log
- Claim receipt generation

#### **4.10 Reports & Export**

- Daily incident summary
- Hall-wise incident analysis
- Response time report
- Security breach statistics
- VIP security report
- Emergency drill report
- Export to Excel / PDF

### **5. Backend TORs (System & Technical Requirements)**

#### **5.1 System Architecture**

- Centralized web-based platform
- Role-Based Access Control (RBAC)
- High-availability server
- API integration capability
- Secure cloud deployment

#### **5.2 Database Requirements**

System must store:

- Incident records
- Response logs
- User roles & permissions
- Badge violation logs
- Evidence attachments
- Alert history
- Audit logs

Backup Policy:

- Daily incremental backup
- Weekly full backup

- Disaster recovery mechanism

### **5.3 Incident Workflow Engine**

Backend must:

- Auto-assign incident ID
- Trigger alerts based on priority
- Escalate critical incidents
- Track SLA (response time threshold)
- Prevent deletion of critical logs
- Maintain full audit trail

### **5.4 Security & Compliance**

Due to defence sensitivity:

- SSL encryption
- Two-Factor Authentication
- Encrypted database
- IP-based admin restriction
- Secure evidence storage
- Tamper-proof logging
- Role-based data access
- Data retention compliance

### **5.5 Integration Requirements**

System must integrate with:

- Pass Management System
- Access Control Gates
- CCTV Monitoring System
- Transportation Management System
- Media Management System
- Help Desk System
- AI Chatbot (for non-critical inquiries)
- Auto Email & SMS Module

### **5.6 Performance Requirements**

- Support 500+ concurrent security users
- Real-time alert delivery (< 2 seconds delay)
- Response time < 3 seconds

- 99.9% uptime during exhibition days

#### **5.7 Analytics Dashboard (Admin View)**

Admin must view:

- Total incidents logged
- Incident type distribution
- Average response time
- Critical vs non-critical ratio
- Zone-wise security heatmap
- Blacklisted attempts count
- Peak security alert times

Charts Required:

- Bar charts
- Pie charts
- Heatmap (zone risk level)
- Timeline graphs

#### **6. Non-Functional Requirements**

- Mobile responsive (tablet-friendly for patrol teams)
- Secure cloud hosting
- High availability & redundancy
- Multi-language support (English mandatory)
- Secure data archival
- Compliance with defence event security standards

#### **7. Deliverables**

Vendor shall provide:

1. Complete Frontend Security Interface
2. Backend Incident Workflow System
3. Alert & Escalation Engine
4. Integration APIs
5. Analytics Dashboard
6. Security & Audit Logging Mechanism
7. Technical Documentation
8. User Manual
9. Security Team Training

## 10. On-site operational support during IDEAS 2026

### ***Terms of Reference (TORs)*** ***Badge Printing & Code Generation System (BPCGS)*** **International Defence Exhibition & Seminar (IDEAS) 2026**

#### ***1. Background***

The International Defence Exhibition & Seminar (IDEAS 2026) requires a secure and centralized **Badge Printing & Code Generation System** to manage accreditation, identity verification, and controlled access for all participants.

The system must generate secure digital codes (QR / Barcode / RFID-ready), print categorized badges, and integrate with access control systems to ensure high-level security compliance suitable for an international defence exhibition.

The module must support real-time badge issuance, reprinting, cancellation, blacklisting, and audit tracking.

#### ***2. Objectives***

The Badge Printing & Code Generation System aims to:

- Generate secure unique digital codes for each accredited participant
- Print category-based badges with security features
- Integrate with access control & gate systems
- Enable real-time badge validation
- Prevent duplication or misuse
- Track badge issuance history
- Support on-site instant badge printing
- Provide audit-ready reporting

#### ***3. Scope of Work***

The system shall include:

- Frontend User Interface
- Backend Code Generation Engine
- Secure Badge Printing Module
- Access Validation Integration
- Audit & Logging System
- Reporting & Analytics Dashboard

#### ***4. Frontend TORs (User Interface Requirements)***

##### ***4.1 User Roles***

- Super Admin
- Accreditation Admin
- Badge Printing Operator
- Security Officer
- Protocol Officer
- Registration Desk Staff
- IT Administrator

#### **4.2 Badge Category Configuration**

Admin must define badge categories such as:

- VVIP
- VIP
- Foreign Delegate
- Defence Official
- Exhibitor
- Sponsor
- Trade Visitor
- Media
- Staff
- Contractor
- Security Personnel

For each category, admin can configure:

- Badge color scheme
- Access level permissions
- Validity dates
- Zone access rights
- Security clearance level
- QR / Barcode format
- RFID flag (if applicable)

#### **4.3 Code Generation Engine (Frontend Control Panel)**

System must allow:

- Automatic unique ID generation
- QR Code generation
- Barcode generation (Code 128 or equivalent)
- Encrypted token-based validation
- Expiry time embedding
- Access zone embedding
- Duplicate detection logic

Each badge must contain:

- Name
- Photo
- Organization
- Country
- Badge ID
- Category
- QR / Barcode
- Security watermark / hologram (print ready)

#### **4.4 On-Site Badge Printing Module**

Features must include:

- Instant badge printing
- Bulk printing option
- Reprint option (with reason capture)
- Replacement badge issuance
- Badge cancellation & invalidation

- Print queue management
- Printer health monitoring
- Multiple printer support

System must:

- Prevent duplicate printing
- Flag suspicious reprint attempts
- Log operator ID for each print

#### **4.5 Badge Validation Interface**

- QR code scanner integration
- Real-time validation response (<2 seconds)
- Green/Red access indicator
- Display user details upon scan
- Show allowed access zones
- Show badge expiry status
- Blacklist warning alert

#### **4.6 Lost / Blacklist Management**

- Mark badge as lost
- Immediate code deactivation
- Blacklist function
- Auto alert to security dashboard
- Issue replacement badge with new code
- Maintain linked audit record

#### **4.7 RealTime Monitoring Dashboard**

Dashboard must display:

- Total badges issued
- Category-wise distribution
- Active vs expired badges
- Real-time scans
- Entry attempts
- Denied access logs
- Reprint frequency
- Blacklisted badges

#### **4.8 Reports & Export**

System must generate:

- Badge issuance report
- Category summary report
- Reprint report
- Lost badge report
- Blacklist report
- Access validation report
- Operator activity report
- Export to Excel / PDF

## **5. Backend TORs (System & Technical Requirements)**

### **5.1 System Architecture**

- Web-based centralized system
- Role-Based Access Control (RBAC)
- Secure code generation engine
- Modular design
- API-ready integration
- Cloud-deployable

### **5.2 Database Requirements**

System must securely store:

- User accreditation data
- Badge ID records
- QR/Barcode tokens
- Access zone mapping
- Scan logs
- Reprint logs
- Blacklist records
- Operator activity logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery mechanism

### **5.3 Secure Code Generation Logic**

Backend must:

- Generate non-sequential encrypted badge IDs
- Use token-based authentication
- Prevent code duplication
- Embed access rights in encrypted form
- Expire codes automatically
- Validate against central server

### **5.4 Integration Requirements**

System must integrate with:

- Registration & Accreditation Module
- Visitor Management System
- Vehicle Access System
- Protocol Management System
- Security Command Dashboard
- B2B Meeting System
- Gate Access Control System
- Help Desk System

### **5.5 Security Requirements**

- SSL/TLS encryption
- Two-Factor Authentication (Admin access)
- Encrypted QR payload
- Data encryption at rest

- IP-based admin restrictions
- Defence-standard security compliance
- Full audit trail logs
- Tamper-proof logging system

#### **5.6 Performance Requirements**

- Support 10,000+ badge records
- Real-time scan validation under 2 seconds
- Support 50+ concurrent scanning devices
- 99.9% uptime during exhibition days
- Instant badge print response

#### **6. Non-Functional Requirements**

- Mobile & tablet compatible
- Multi-language support (English mandatory)
- High availability server
- Secure hosting environment
- Scalability for future IDEAS events
- Hardware compatible (Printers, Scanners, RFID)

#### **7. Deliverables**

Vendor must provide:

1. Complete Badge Management Frontend
2. Secure Backend Code Generation Engine
3. On-site Printing Module
4. QR/Barcode Integration
5. Access Validation Integration
6. Real-Time Monitoring Dashboard
7. Technical Documentation
8. User Manual
9. Staff Training for IDEAS/DEPO team
10. On-site technical support during IDEAS 2026

## **Terms of Reference (TORs) Pass Management System (PMS) International Defence Exhibition & Seminar 2026**

### **1. Background**

The International Defence Exhibition & Seminar (IDEAS 2026) requires a secure and centralized Pass Management System (PMS) to issue, control, and monitor different categories of event passes for:

- Trade Visitors
- Group Visitors
- Exhibitors
- Sponsors

- VIP / VVIP Delegations
- Foreign Delegates
- Media Personnel
- Staff & Organizers
- Security Personnel
- Contractors (Stall Builders, Logistics, Catering, etc.)

Given the high-security nature of a defence exhibition, the system must ensure strict access control, identity verification, zone-based permissions, QR validation, and full audit traceability.

## **2. Objectives**

The Pass Management System aims to:

- Digitally generate and approve passes
- Assign access levels (Hall-wise / Zone-wise)
- Control entry and exit through QR scanning
- Prevent unauthorized duplication
- Track real-time attendance
- Generate security and analytics reports
- Integrate with other IDEAS 2026 systems

## **3. Scope of Work**

The system shall include:

- Frontend (User & Admin Interfaces)
- Backend (Application Logic & Database)
- Pass Design & Badge Engine
- QR/Barcode Validation System
- Access Control Integration
- Reporting & Analytics Dashboard

## **4. Frontend TORs (User Interface Requirements)**

### **4.1 User Roles (Frontend Access)**

- Super Admin
- Pass Admin
- Security Officer
- Protocol Officer
- Hall Manager
- Exhibitor

- Sponsor
- Media Coordinator
- Contractor Representative
- Visitor (Limited Portal Access)

#### **4.2 Pass Category Management**

System must allow creation of pass categories:

- Trade Visitor Pass
- Group Visitor Pass
- Exhibitor Pass
- Sponsor Pass
- VIP Pass
- VVIP Pass
- Media Pass
- Staff Pass
- Contractor Pass
- Temporary Entry Pass

Each category must define:

- Validity period
- Access zones
- Entry time restrictions
- Meal entitlement (if integrated)
- Transport eligibility

#### **4.3 Pass Application Module**

##### **Online Application Form Fields**

- Full Name
- CNIC / Passport
- Nationality
- Organization
- Designation
- Contact Information
- Photograph Upload
- Supporting Documents
- Pass Category Selection



- System must:
- Prevent duplicate applications
  - Validate document uploads
  - Generate application tracking number
  - Send confirmation notification

#### **4.4 Approval Workflow**

Application Status Stages:

- Submitted
- Under Review
- Security Clearance
- Approved
- Rejected
- Printed

Features:

- Multi-level approval hierarchy
- Security clearance verification
- Remarks field
- Digital signature approval log

#### **4.5 Pass Design & Badge Engine**

- Customizable badge templates
- Logo placement (IDEAS 2026 branding)
- User photograph
- QR Code generation
- RFID support (optional)
- Color coding by category
- Hall/Zone access indicators
- Print preview option

#### **4.6 QR / Access Gate Validation**

- QR scanning interface
- Instant validity verification
- Entry & exit timestamp logging
- Duplicate entry prevention
- Blacklist detection



- Offline scan mode with sync

#### **4.7 Zone-Based Access Control**

System must define zones such as:

- Hall 1, Hall 2, etc.
- VIP Lounge
- Media Center
- Seminar Hall
- Logistics Area
- Catering Area
- Control Room
- Access rules configurable per pass category.

#### **4.8 Real-Time Monitoring Dashboard**

Dashboard must show:

- Total passes issued
- Active inside premises
- Zone-wise occupancy
- Entry/exit logs
- Suspicious activity alerts

#### **4.9 Temporary & Emergency Pass Module**

- One-day visitor pass
- Replacement pass issuance
- Lost pass deactivation
- Emergency access override
- Incident log entry

#### **4.10 Reports & Export**

- Pass issuance summary
- Category-wise distribution
- Country-wise participation
- Hall access statistics
- Peak entry time analysis
- Security incident report
- Export to Excel / PDF

## **5. Backend TORs (System & Technical Requirements)**

### **5.1 System Architecture**

- Centralized web-based system
- Role-Based Access Control (RBAC)
- API integration capability
- Scalable cloud hosting
- Secure QR validation engine

### **5.2 Database Requirements**

System must store:

- Pass application records
  - Document uploads
  - Approval logs
  - QR codes & badge IDs
  - Entry/exit logs
  - Zone access mapping
  - Security flags
  - Audit logs
- Backup Policy:
- Daily incremental backup
  - Weekly full backup
  - Disaster recovery plan

### **5.3 Security & Compliance**

Due to defence sensitivity:

- SSL encryption
- Two-Factor Authentication (Admin & Security)
- Encrypted database
- IP-based admin restrictions
- Tamper-proof QR codes
- Full activity logging
- Data privacy compliance

### **5.4 Access Control Integration**

System must integrate with:

- Visitor Management System
- Registration Module



- Media Management System
- Transportation Management System
- Catering Management System
- Help Desk System
- AI Chatbot
- Gate barrier hardware & QR scanners

#### **5.5 Performance Requirements**

- Support 20,000+ pass records
- Process 10 scans per second per gate
- Response time < 2 seconds
- 99.5% uptime during exhibition

#### **5.6 Analytics Dashboard (Admin View)**

Admin dashboard must display:

- Total issued passes
- Active visitors inside
- Zone occupancy percentage
- VIP movement tracking
- Rejected applications
- Blacklisted entries
- Peak hour traffic flow

Charts Required:

- Bar charts
- Pie charts
- Heatmap (zone occupancy)
- Timeline graphs

#### **6. Non-Functional Requirements**

- Mobile responsive design
- High availability server
- Cloud-ready infrastructure
- Secure hosting environment
- Multi-language support (English mandatory)
- Data retention compliance

## 7. Deliverables

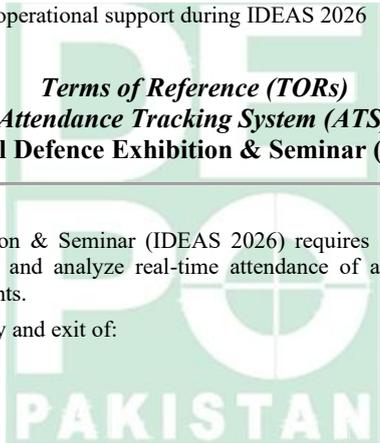
Vendor shall provide:

1. Complete Frontend UI
2. Backend System
3. QR/Access Control Integration
4. Badge Printing Engine
5. Security & Audit Logging System
6. Analytics Dashboard
7. Technical Documentation
8. User Manual
9. Staff Training
10. On-site operational support during IDEAS 2026

### *Terms of Reference (TORs) Attendance Tracking System (ATS)*

#### **International Defence Exhibition & Seminar (IDEAS) 2026**

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#### *1. Background*

The International Defence Exhibition & Seminar (IDEAS 2026) requires a centralized **Attendance Tracking System (ATS)** to monitor, record, and analyze real-time attendance of all accredited participants across the exhibition venue and associated events.

The system must securely track entry and exit of:

- VIP / VVIP dignitaries
- Foreign delegations
- Exhibitors & Sponsors
- Trade visitors
- Seminar & conference participants
- Media representatives
- Staff & contractors

The Attendance Tracking System must integrate with the Badge Printing & Code Generation System, Vehicle Access System, Event Management Module, and Security Command Dashboard to ensure controlled access, real-time visibility, and audit-ready reporting.

#### *2. Objectives*

The Attendance Tracking System aims to:

- Track real-time entry and exit of participants
- Monitor hall-wise and event-wise attendance
- Prevent unauthorized access
- Provide live occupancy data
- Support VIP attendance monitoring
- Generate attendance analytics and reports
- Ensure compliance with security protocols

**3. Scope of Work**

The system shall include:

- Frontend User Interface
- Backend Attendance Logging Engine
- QR / RFID Scanning Integration
- Zone & Hall Monitoring Module
- Event Attendance Module
- Real-Time Analytics Dashboard
- Reporting & Audit System

**4. Frontend TORs (User Interface Requirements)**

**4.1 User Roles**

- Super Admin
- Security Admin
- Attendance Monitoring Officer
- Gate Operator
- Hall Supervisor
- Event Coordinator
- Protocol Officer
- IT Administrator

**4.2 Entry & Exit Tracking Module**

System must:

- Scan QR / Barcode badges at entry and exit
- Support RFID tap-in / tap-out (if enabled)
- Record timestamp automatically
- Display participant details upon scan
- Show access validity status
- Flag expired or invalid badges
- Prevent duplicate entry without exit record

Each scan must capture:

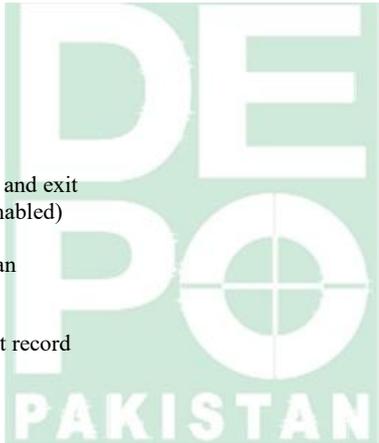
- Badge ID
- Name
- Category
- Zone accessed
- Entry time
- Exit time
- Device ID (scanner identification)

**4.3 Zone & Hall Attendance Monitoring**

Admin must configure:

- Hall-wise tracking (Hall 1, Hall 2, etc.)
- Seminar rooms
- VIP lounges
- Restricted zones
- Gala dinner venue
- Tri-services show area
- Executive golf event area

System must:



- Track real-time occupancy per zone
- Show maximum capacity limits
- Trigger over-capacity alerts
- Show historical attendance per hall
- Display peak traffic hours

**4.4 Event-Based Attendance Tracking**

For special events (Gala Dinner, Tri-Services Show, Golf):

- Dedicated event check-in system
- RSVP vs actual attendance comparison
- VIP attendance monitoring
- No-show reporting
- Early exit tracking

**4.5 Real-Time Attendance Dashboard**

Dashboard must display:

- Total participants inside venue
- Category-wise breakdown
- Hall-wise occupancy
- VIP/VVIP presence indicator
- Entry vs exit trends
- Hourly attendance graph
- Peak time analysis

Map View:

- Visual hall layout
- Occupied vs available capacity
- Restricted zone indicators



**4.6 Alert & Notification System**

System must generate alerts for:

- Over-capacity zones
- Blacklisted badge scan attempt
- Expired badge access attempt
- VIP entry notification
- Suspicious repeated scan attempts
- Emergency evacuation tracking

**4.7 Manual Override & Exception Handling**

- Manual attendance entry (authorized admin only)
- Force exit entry correction
- Duplicate scan resolution
- Badge substitution record
- Incident remarks logging

**4.8 Reports & Export**

System must generate:

- Daily attendance report
- Hall-wise attendance report
- Category-wise attendance summary
- VIP attendance report

- Event-specific attendance report
- Peak hour analysis report
- Entry/Exit log report
- Export to Excel / PDF

**5. Backend TORs (System & Technical Requirements)**

**5.1 System Architecture**

- Web-based centralized platform
- Role-Based Access Control (RBAC)
- Real-time data processing engine
- API-ready integration
- Cloud-deployable infrastructure

**5.2 Database Requirements**

System must securely store:

- Participant data
- Badge validation logs
- Entry & exit timestamps
- Zone mapping data
- Device scan logs
- Attendance corrections history
- Audit logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery mechanism

**5.3 Real-Time Logging Engine**

Backend must:

- Process scan validation under 2 seconds
- Prevent duplicate active entries
- Detect simultaneous multiple scans
- Trigger real-time alerts
- Sync data across all scanning devices
- Support offline scan caching with later sync



**5.4 Integration Requirements**

System must integrate with:

- Badge Printing & Code Generation System
- Registration & Accreditation Module
- Vehicle Access System
- Protocol Management System
- Event Management Module
- Security Command Dashboard
- Help Desk System

**5.5 Security Requirements**

- SSL/TLS encryption
- Encrypted QR payload validation
- Two-Factor Authentication (Admin)

- Data encryption at rest
- IP-based access restrictions
- Tamper-proof audit logs
- Defence-standard compliance

**5.6 Performance Requirements**

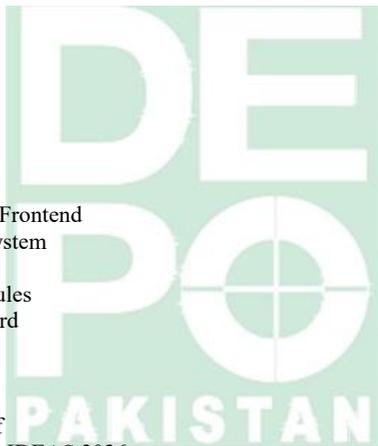
- Support 20,000+ attendance records
- Validate scan in under 2 seconds
- Handle 100+ concurrent scanning devices
- Real-time dashboard refresh under 3 seconds
- 99.9% uptime during exhibition days

**6. Non-Functional Requirements**

- Mobile & tablet compatible
- Multi-language support (English mandatory)
- High availability server
- Cloud-ready scalable infrastructure
- Secure hosting environment
- Data retention compliance

**7. Deliverables**

1. Vendor must provide:
2. Complete Attendance Tracking Frontend
3. Backend Real-Time Logging System
4. QR / RFID Integration
5. Zone & Event Attendance Modules
6. Real-Time Monitoring Dashboard
7. Reporting & Analytics Engine
8. Technical Documentation
9. User Manual
10. Training for IDEAS/DEPO staff
11. On-site technical support during IDEAS 2026



***Terms of Reference (TORs)***  
***Content Management System (CMS)***  
**International Defence Exhibition & Seminar (IDEAS) 2026**

**1. Background**

The International Defence Exhibition & Seminar (IDEAS 2026) requires a centralized **Content Management System (CMS)** to manage, update, and publish digital content across the official website, mobile application, digital screens, and integrated communication platforms.

The CMS must allow authorized personnel to create, edit, approve, and publish content in real-time while maintaining strict security and version control. The system must support multilingual content, media management, event updates, exhibitor listings, announcements, and dynamic information display.

The CMS must integrate seamlessly with other IDEAS 2026 modules including Registration, Event Management, B2B Meetings, Logistics, and Analytics systems.

**2. Objectives**

The Content Management System aims to:

- Provide centralized content control
- Enable real-time content publishing
- Manage website and mobile app content
- Support multilingual content management
- Maintain structured document repository
- Ensure role-based approval workflows
- Provide version history and audit logs
- Enhance public communication and digital engagement

**3. Scope of Work**

The system shall include:

- Frontend Content Editor Interface
- Backend Content Management Engine
- Media & Document Repository
- Workflow & Approval System
- Multi-language Management
- SEO & Publishing Tools
- Reporting & Analytics Dashboard



**4. Frontend TORs (User Interface Requirements)**

**4.1 User Roles**

- Super Admin
- CMS Administrator
- Content Editor
- Content Approver
- Media Manager
- IT Administrator
- Public Relations Officer

**4.2 Website Content Management**

System must allow management of:

- Home Page banners & sliders
- About IDEAS section
- Event schedules
- Exhibitor listings
- Seminar & conference information
- News & announcements
- Press releases
- Gallery (Photos & Videos)
- Downloads (Brochures, Floor Plans, Forms)
- Contact pages
- FAQ section

Features:

- WYSIWYG content editor
- Drag-and-drop layout management
- Template-based page creation
- Content preview before publishing
- Scheduled publishing option

**4.3 Multi-Language Support**

- Primary language: English
- Additional language capability (if required)
- Separate content version per language
- Language toggle option
- Auto flag for untranslated content

**4.4 Media & Document Management**

- Upload images, videos, PDFs, brochures
- Folder-based organization
- File tagging & search functionality
- File size control
- Secure document download control
- Version tracking of uploaded files

Supported formats:

- JPG, PNG, MP4
- PDF
- DOCX
- XLSX

**4.5 Dynamic Content Modules**

CMS must support integration with:

- Exhibitor data (auto-sync listing)
- Event schedule updates
- B2B meeting announcements
- Live notifications
- Countdown timers
- Sponsor banners
- Digital signage feeds



**4.6 Approval Workflow Module**

System must allow:

- Draft creation
- Review submission
- Approval / rejection
- Revision tracking
- Publish after approval
- Role-based content visibility

Workflow stages:

Draft → Under Review → Approved → Published → Archived

**4.7 Content Version Control**

- Maintain content history
- Track changes by user

- Restore previous versions
- Log modification timestamps
- Maintain audit trail

**4.8 SEO & Optimization Tools**

- Meta title & description control
- Keyword tagging
- URL slug management
- Sitemap generation
- Basic analytics integration
- Page performance tracking

**4.9 Notification & Alert System**

- Notify approvers of pending content
- Publish confirmation alerts
- Expired content reminder
- Scheduled publishing alert

**4.10 Reports & Export**

System must generate:

- Content publication report
- Editor activity report
- Approval turnaround time report
- Most viewed pages analytics
- Media usage report
- Export reports to Excel / PDF



**5. Backend TORs (System & Technical Requirements)**

**5.1 System Architecture**

- Web-based centralized CMS
- Modular architecture
- Role-Based Access Control (RBAC)
- API-ready integration
- Cloud-ready deployment
- Mobile responsive admin interface

**5.2 Database Requirements**

System must store:

- Page content records
- Media files metadata
- User roles & permissions
- Workflow status logs
- Version history
- Audit logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan

**5.3 Security Requirements**

- SSL encryption
- Two-Factor Authentication (Admin access)
- Role-based content access
- Secure file storage
- IP-based admin restriction
- Audit-ready logging
- Defence-standard hosting compliance

**5.4 Integration Requirements**

CMS must integrate with:

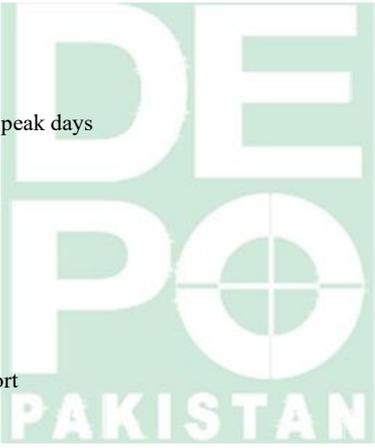
- Registration & Accreditation Module
- Event Management Module
- B2B Meetings System
- Logistics Management System
- Attendance Tracking System
- Analytics Dashboard
- Help Desk System
- Mobile Application

**5.5 Performance Requirements**

- Support high website traffic during peak days
- Page load time under 3 seconds
- Support 10,000+ daily visitors
- Real-time content updates
- 99.5% uptime during exhibition

**6. Non Functional Requirements**

- Mobile responsive interface
- Scalable cloud infrastructure
- Secure hosting environment
- Multi-user concurrent editing support
- Data retention policy compliance
- High availability server



**7. Deliverables**

Vendor must provide:

1. Complete CMS Frontend Interface
2. Backend Content Management Engine
3. Media Repository Module
4. Workflow & Approval System
5. SEO & Optimization Tools
6. Reporting Dashboard
7. API Integration Support
8. Technical Documentation
9. User Manual
10. Training for IDEAS/DEPO staff
11. Post-deployment support during IDEAS 2026

***Terms of Reference (TORs)***  
**API Integration Module**

**International Defence Exhibition & Seminar (IDEAS 2026)**

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**1. Background**

IDEAS 2026 will operate multiple digital systems including Pass Management, Biometric Verification (NADRA), CCTV Surveillance, Attendance Tracking, Badge Printing, Event Management, Help Desk, Access Control, and ERP modules.

To ensure seamless communication and real-time data exchange among these systems, a centralized and secure **API Integration Module** is required. This module will serve as the digital backbone enabling interoperability between internal systems and approved external stakeholders.

**2. Objectives**

- Enable secure real-time data exchange between all IDEAS digital modules.
- Provide standardized APIs for third-party integrations (e.g., NADRA, payment gateways, SMS/email gateways).
- Ensure data consistency, synchronization, and centralized monitoring.
- Maintain high-level security, compliance, and performance standards.

**3. Scope of Work**

The vendor shall:

- Design and develop a centralized API Gateway.
- Develop RESTful APIs for all internal modules.
- Integrate external systems (NADRA, payment gateways, SMS services, etc.).
- Implement authentication, authorization, logging, and monitoring mechanisms.
- Provide documentation for all APIs.
- Ensure high availability and scalability.

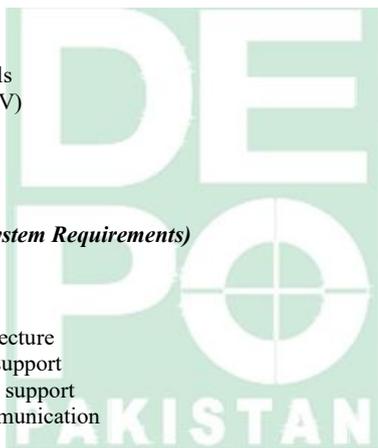
**4. Front-End TORs (API Management Dashboard)**

**4.1 User Roles**

- Super Admin
- IT Administrator
- Integration Manager
- System Auditor

**4.2 API Monitoring Dashboard**

- Real-time API traffic monitoring
- Request/response logs
- Success and failure rate analytics
- API usage statistics (daily/weekly/monthly)
- Graphical performance visualization



### 4.3 API Key & Access Management

- Generate API keys and tokens
- Role-based access control (RBAC)
- Token expiry configuration
- Revoke/suspend API credentials
- Two-factor authentication for admin access

### 4.4 Error Handling & Alerts

- Automatic alerts for API failure
- Downtime notifications
- Threshold-based alerts for unusual traffic
- Suspicious activity detection

### 4.5 Audit & Reporting

- Complete audit logs for API calls
- Exportable logs (Excel/PDF/CSV)
- Compliance reports
- System integration reports

## 5. Back End TORs (Technical & System Requirements)

### 5.1 System Architecture

- Centralized API Gateway architecture
- RESTful and/or GraphQL API support
- Microservices-based integration support
- Secure HTTPS (SSL/TLS) communication
- Load-balanced architecture

### 5.2 Authentication & Security

- OAuth 2.0 / JWT-based authentication
- Role-Based Access Control (RBAC)
- IP whitelisting (where required)
- API rate limiting
- Encrypted data transmission
- Protection against SQL injection, XSS, CSRF attacks

### 5.3 Integration Capabilities

The system must support integration with:

- Pass Management System

- Biometric Verification (NADRA Integration)
- Badge Printing & QR Code Generation
- CCTV & Surveillance Module
- Attendance Tracking Module
- Help Desk & Ticketing System
- Event Management Module
- Payment Gateway (if applicable)
- SMS/Email Notification Systems
- ERP / IPMIS systems

#### 5.4 Data Synchronization

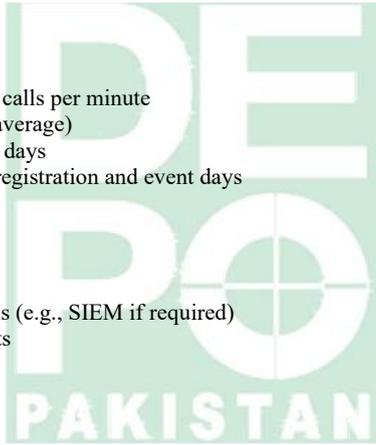
- Real-time data synchronization
- Scheduled batch synchronization (configurable)
- Data validation before processing
- Duplicate detection mechanism
- Transaction rollback in case of failure

#### 5.5 Performance Requirements

- Support minimum 10,000+ API calls per minute
- API response time < 1 second (average)
- 99.9% uptime during exhibition days
- Scalable to accommodate peak registration and event days

#### 5.6 Logging & Monitoring

- Centralized logging system
- Integration with monitoring tools (e.g., SIEM if required)
- Real-time health check endpoints
- Automated failover mechanism



#### 6. Non-Functional Requirements

- Cloud-ready and hybrid deployment capability
- High availability architecture
- Disaster recovery mechanism
- Daily automated backups
- Multi-language support (English mandatory)
- Comprehensive API documentation (Swagger/OpenAPI standard)

#### 7. Deliverables

- Fully functional API Gateway
- Integrated internal and external modules
- API documentation manual
- Admin training
- Testing & UAT support
- 1-year technical support (minimum)

***Terms of Reference (TORs)***  
***Biometric Verification System (BVS) – NADRA Integrated***  
***International Defence Exhibition & Seminar (IDEAS) 2026***

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***1. Background***

The International Defence Exhibition & Seminar (IDEAS 2026) requires a highly secure **Biometric Verification System (BVS)** integrated with **NADRA (National Database & Registration Authority)** to ensure identity authentication of participants attending the exhibition.

Given the sensitive nature of a defence exhibition involving high-level dignitaries, foreign delegations, defence officials, exhibitors, and trade visitors, biometric verification is essential to prevent identity fraud, unauthorized access, and credential misuse.

The system must verify participant identity using biometric authentication (fingerprint and/or facial recognition) through secure integration with NADRA's verification services and must comply with national security and data protection regulations.

***2. Objectives***

The Biometric Verification System aims to:

- Verify participant identity against NADRA database
- Prevent identity fraud and impersonation
- Strengthen access control security
- Support accreditation verification
- Enable biometric validation at registration and entry points
- Maintain audit-ready biometric verification logs
- Integrate with Badge, Attendance, and Security systems

***3. Scope of Work***

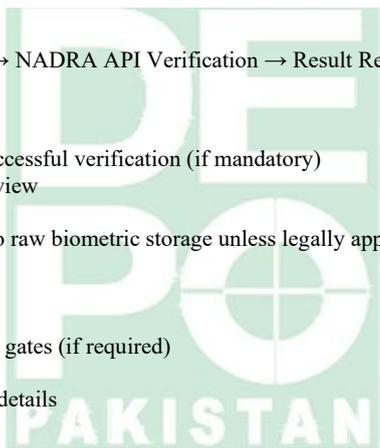
The system shall include:

- Frontend Biometric Verification Interface
- Backend NADRA Integration Engine
- Biometric Device Integration Module
- Secure API Communication Layer
- Audit & Logging System
- Reporting & Monitoring Dashboard

***4. Frontend TORs (User Interface Requirements)***

***4.1 User Roles***

- Super Admin
- Accreditation Admin
- Biometric Verification Officer
- Security Officer
- Registration Desk Operator
- IT Administrator



#### **4.2 Biometric Enrollment & Verification Module**

System must allow:

- CNIC / Passport number entry
- Fingerprint scan capture
- Facial image capture (if applicable)
- Real-time verification request submission
- Display of verification result (Verified / Not Verified / Mismatch)
- Verification timestamp recording

For Pakistani Nationals:

- CNIC-based biometric verification through NADRA

For Foreign Delegates:

- Passport verification (manual validation or integrated with relevant authority if applicable)

#### **4.3 Verification Workflow**

Workflow must support:

Registration → Biometric Capture → NADRA API Verification → Result Response → Badge Approval / Rejection

System must:

- Prevent badge issuance without successful verification (if mandatory)
- Allow flagged cases for manual review
- Log verification reference ID
- Store masked identity data only (no raw biometric storage unless legally approved)

#### **4.4 On-Site Verification Module**

- Rapid biometric validation at entry gates (if required)
- Live identity match confirmation
- Visual confirmation of participant details
- Alert for mismatch attempt
- Retry logic for failed scan

#### **4.5 Verification Dashboard**

Admin dashboard must display:

- Total verification requests
- Successful verifications
- Failed / rejected verifications
- Pending manual reviews
- Time taken per verification
- Verification by category (VIP, Exhibitor, Visitor, Staff)

#### **4.6 Exception & Manual Handling**

System must allow:

- Manual override (authorized admin only)
- Document upload for manual identity validation
- Incident remarks entry

- Escalation to security authority
- Re-verification request option

#### **4.7 Reports & Export**

System must generate:

- Daily verification report
- Category-wise verification summary
- Failed verification report
- Manual override report
- Audit log report
- Export to Excel / PDF

### **5. Backend TORs (System & Technical Requirements)**

#### **5.1 System Architecture**

- Secure web-based centralized system
- Role-Based Access Control (RBAC)
- NADRA API integration layer
- Secure communication protocols
- Cloud-ready deployment

#### **5.2 NADRA Integration Requirements**

System must:

- Integrate with NADRA Biometric Verification API
- Use encrypted API communication (VPN / dedicated secure link as required)
- Follow NADRA data security compliance standards
- Log NADRA transaction reference numbers
- Ensure response time within acceptable SLA

Integration must comply with:

- NADRA technical guidelines
- National cybersecurity regulations
- Government data protection policies

#### **5.3 Biometric Device Integration**

System must support:

- Fingerprint scanners (STQC certified / NADRA approved devices)
- Facial recognition cameras (if required)
- SDK integration with biometric hardware
- Device health monitoring
- Offline caching with secure sync

#### **5.4 Data Security & Compliance**

- SSL/TLS encryption
- End-to-end encrypted biometric transmission
- No raw biometric data stored unless legally permitted
- Masked CNIC storage
- Secure token-based session control
- IP-based admin restriction



- Full audit trail logs
- Defence-standard security compliance

**5.5 Database Requirements**

System must store:

- Verification request logs
- Response status
- User accreditation data
- Audit logs
- Device logs
- Manual override records

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan

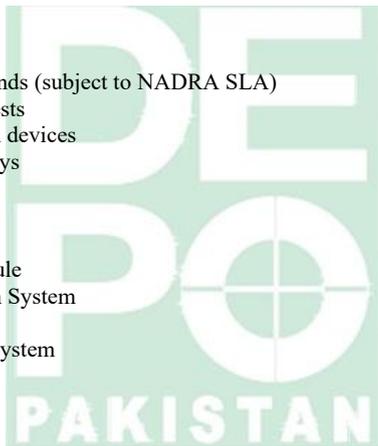
**5.6 Performance Requirements**

- Verification response under 5 seconds (subject to NADRA SLA)
- Support 10,000+ verification requests
- Handle 50+ concurrent verification devices
- 99.9% uptime during exhibition days

**6. Integration Requirements**

System must integrate with:

- Registration & Accreditation Module
- Badge Printing & Code Generation System
- Attendance Tracking System
- Vehicle Access & Smart Parking System
- Protocol Management System
- Security Command Dashboard
- Help Desk System



**7. Non-Functional Requirements**

- Mobile & tablet compatible
- Secure hosting environment
- Cloud-ready scalable infrastructure
- High availability server
- Data retention compliance
- Multi-language interface (English mandatory)

**8. Deliverables**

Vendor must provide:

1. Complete Biometric Verification Frontend
2. Secure Backend NADRA Integration Engine
3. Biometric Device Integration
4. Real-Time Monitoring Dashboard

5. Security & Compliance Implementation
6. Technical Documentation
7. User Manual
8. Training for IDEAS/DEPO staff
9. NADRA integration coordination support
10. On-site technical support during IDEAS 2026

## **TERMS OF REFERENCE (TORs)**

### **CCTV Surveillance & Monitoring (Frontend & Backend)**

#### **International Defense Exhibition & Seminar (IDEAS) – 2026**

##### **1. Background**

IDEAS 2026 requires a centralized CCTV Surveillance Module to ensure real-time monitoring, security, and incident tracking across the venue. The system will support operational security teams in preventing unauthorized access, monitoring crowd flow, and responding to emergencies efficiently.

##### **2. Objectives**

- Provide live video monitoring across all exhibition halls, entrances, parking areas, and restricted zones.
- Record and store CCTV footage for post-event review and audit.
- Enable real-time alerts for suspicious activity or access violations.
- Integrate with Security & Incident Management System (SIMS) and Access Control Systems.

##### **3. Scope of Work**

- Develop **Frontend Dashboard** for security personnel and control room operators.
- Develop **Backend System** for video streaming, storage, retrieval, and analytics.
- Integrate with access control, incident reporting, and emergency alert modules.
- Provide reporting tools for post-event analysis.

##### **4. Frontend TORs (User Interface Requirements)**

###### **4.1 User Roles**

- Mobile-friendly control for security supervisors (view-only access)
- Super Admin
- Security Supervisor
- Control Room Operator
- Hall Security Officer

###### **4.2 Live Video Monitoring**

- Real-time camera feeds (hall, entrance, parking, VIP areas)
- Multi-camera view (grid layout)
- Full-screen feed with PTZ (Pan, Tilt, Zoom) controls where applicable

#### **4.3 Alerts & Notifications**

- Motion detection alerts
- Suspicious activity detection (if AI-enabled)
- Entry into restricted zones
- Automatic pop-up alerts in dashboard

#### **4.4 Playback & Search**

- Search recorded footage by camera, date, time, or event type
- Export video clips for incidents
- Snapshot capture

#### **4.5 Integration Features**

- Link feeds to incident reports in SIMS
- Flagged incidents to be displayed in security dashboard

### **5. Backend TORs (System & Technical Requirements)**

#### **5.1 System Architecture**

- Centralized we-based video management system (VMS)
- Role-based access control (RBAC)
- Secure API endpoints for integration with SIMS and access control

#### **5.2 Video Storage & Management**

- Centralized storage for HD video footage
- Retention policy: Minimum 30 days (configurable)
- Automatic backup & disaster recovery
- Indexing and tagging of recordings

#### **5.3 Camera & Device Management**

- Add/remove/configure cameras
- Status monitoring (online/offline)
- PTZ control support

#### **5.4 Security & Compliance**

- Encrypted video streaming (SSL/TLS)
- Audit logs for all access and playback actions
- Two-factor authentication (2FA) for admin and control room users
- Data privacy compliance for recorded footage

**5.5 Performance Requirements**

- Support 500+ camera feeds simultaneously
- Real-time streaming latency < 2 seconds
- Scalable to cover additional temporary cameras during peak events
- 99.9% uptime during exhibition days

**5.6 Analytics & Reporting**

- Heat maps of crowd density (if supported by AI cameras)
- Incident-specific video logs
- Exportable reports in Excel/PDF

**6. Non-Functional Requirements**

- Mobile-friendly control for security supervisors (view-only access)
- Cloud-ready hosting for redundancy (optional hybrid with on-premise NVR)
- High availability with automatic failover
- Multi-language interface (English mandatory)

***Terms of Reference (TORs)***  
**Cyber Security Management Module**

**(Firewall Management System, SIEM, Endpoint Protection & Vulnerability Scanning)**

**International Defence Exhibition & Seminar (IDEAS 2026)**

**1. Background**

IDEAS 2026 requires a comprehensive Cyber Security Management Framework to safeguard its digital infrastructure, sensitive exhibitor data, VIP information, and integrated systems (PMS, ERP, CCTV, Biometric, API, etc.).

Given the strategic nature of the event, the cyber security architecture must ensure real-time threat detection, prevention of unauthorized access, network monitoring, and compliance with national cyber security standards.

**2. Objectives**

- Protect all IDEAS IT infrastructure from cyber threats and attacks.
- Ensure secure network access through centralized firewall management.
- Enable real-time monitoring and threat detection using SIEM tools.
- Secure all endpoints (servers, desktops, laptops, kiosks).
- Conduct proactive vulnerability assessments and risk mitigation.

**3. Scope of Work**

The selected vendor shall:

- Deploy and configure enterprise-grade firewall systems.
- Implement a centralized SIEM solution for log monitoring and threat intelligence.

- Install endpoint protection solutions on all devices.
- Conduct vulnerability scanning and penetration testing.
- Provide monitoring, alerting, and reporting mechanisms.
- Ensure integration with all IDEAS digital modules and network infrastructure.

**4. Firewall Management System (FMS)**

**4.1 Functional Requirements**

- Next-Generation Firewall (NGFW) deployment
- Intrusion Prevention System (IPS)
- Intrusion Detection System (IDS)
- Application-level filtering
- Web filtering and content control
- Geo-blocking (if required)
- VPN configuration for secure remote access
- Network segmentation (Public, Admin, Security, VIP zones)

**4.2 Management & Monitoring**

- Centralized firewall management console
- Real-time traffic monitoring dashboard
- Bandwidth monitoring and control
- Policy configuration and change management
- Automatic rule update and patch management

**4.3 Security Controls**

- SSL/TLS inspection
- Anti-DDoS protection
- Port control and traffic filtering
- Role-based access to firewall management
- Complete audit logs



**5. SIEM (Security Information and Event Management)**

**5.1 Core Capabilities**

- Centralized log collection from:
  - Servers
  - Applications
  - Firewalls
  - CCTV systems
  - API Gateway
  - Biometric systems
- Real-time log correlation
- Threat intelligence integration
- Behavioral anomaly detection

**5.2 Alerts & Incident Response**

- Automated threat alerts

- Critical incident notification (Email/SMS)
- Security incident dashboard
- Incident severity classification
- Integration with Incident Management System

**5.3 Reporting**

- Daily/weekly/monthly security reports
- Compliance reporting
- Log retention minimum 180 days (configurable)
- Exportable reports (PDF/Excel)

**6. Endpoint Protection System**

**6.1 Coverage**

- Servers (On-premise & Cloud)
- Staff desktops & laptops
- Registration kiosks
- Control room systems
- Mobile devices (if applicable)

**6.2 Features**

- Anti-virus & anti-malware protection
- Ransomware protection
- Real-time threat detection
- Device control (USB restrictions)
- Patch management
- Remote device isolation (if compromised)



**6.3 Centralized Management**

- Unified endpoint security dashboard
- Policy enforcement
- Automatic updates
- Threat analytics and reporting

**7. Vulnerability Scanning & Assessment**

**7.1 Scanning Requirements**

- Network vulnerability scanning
- Web application security scanning
- API security testing
- Database vulnerability assessment
- Wireless network security testing



**7.2 Testing**

- Pre-event penetration testing
- Post-deployment security audit
- Risk assessment report
- Remediation plan documentation

**7.3 Compliance**

- Alignment with national cyber security policies
- Compliance with data protection standards
- Risk scoring and classification

**8. Performance & Availability Requirements**

- 24/7 security monitoring during event days
- 99.9% uptime for security infrastructure
- Real-time threat detection ( $\leq 30$  seconds alert delay)
- Scalability for peak traffic during exhibition

**9. Non-Functional Requirements**

- Encrypted communication across all systems
- Multi-factor authentication (MFA) for admin users
- Disaster recovery and backup plan
- High availability (HA) configuration
- Cloud-ready or hybrid deployment model
- Dedicated on-site security engineer during exhibition days

**10. Deliverables**

- Deployed firewall infrastructure
- Fully configured SIEM solution
- Installed endpoint protection on all devices
- Vulnerability assessment & penetration testing reports
- Security monitoring dashboard
- Incident response plan
- Training for IT & security staff
- Minimum 1-year support & maintenance

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost

***Terms of Reference (TORs)***  
**Incident Management System (IMS)**  
**International Defence Exhibition & Seminar (IDEAS 2026)**

**1. Background**

IDEAS 2026 is a high-profile defense exhibition requiring a robust Incident Management System (IMS) to log, track, manage, and resolve operational, security, safety, and technical incidents efficiently. The system ensures timely response, accountability, and auditability across all event areas.

**2. Objectives**

The IMS aims to:

- Digitally log and track all types of incidents (security, safety, medical, technical, crowd management).
- Enable rapid response coordination between security teams, event staff, and emergency services.
- Provide real-time incident dashboards with status, alerts, and resolution tracking.
- Generate reports and analytics for post-event review and decision-making.

**3. Scope of Work**

The system shall include:

- Frontend interface for incident reporting, monitoring, and response management.
- Backend database, workflow engine, and analytics dashboard.
- Integration with other IDEAS systems (CCTV, Access Control, Help Desk, Transportation).
- Notification and escalation module for rapid response.

**4. Frontend TORs (User Interface Requirements)**

**4.1 User Roles**

- Super Admin
- Incident Coordinator
- Control Room Officer
- Security Supervisor
- Medical Team Lead
- Fire Safety Officer
- Technical Support Officer
- Protocol Officer

**4.2 Incident Logging**

- Capture incident details: ID, type, location, date/time, persons involved, severity, and description.
- Upload evidence: photo, video, or documents.
- Quick-entry form for emergency incidents.
- Priority classification (Low, Medium, High, Critical).

**4.3 Real Time Dashboard**

- Active incident tracking with live status updates.
- Color-coded alerts for severity.
- Hall/zone-wise incident mapping.
- Assignment of response teams.



- Time-to-response monitoring.

#### 4.4 Notifications & Alerts

- SMS, email, and app push notifications.
- Emergency alert trigger.
- Escalation for unresolved high-priority incidents.
- Optional acknowledgment from responders.

#### 4.5 Incident Resolution & Feedback

- Mark incidents as contained/resolved.
- Record resolution actions and remarks.
- Feedback module for post-resolution review.

#### 4.6 Reporting & Export

- Daily/weekly incident summary reports.
- Hall-wise and category-wise analysis.
- Exportable in PDF/Excel for post-event review.

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

- Centralized web-based platform with secure API endpoints.
- Role-Based Access Control (RBAC).
- Cloud-ready or on-premise hosting.

#### 5.2 Database Requirements

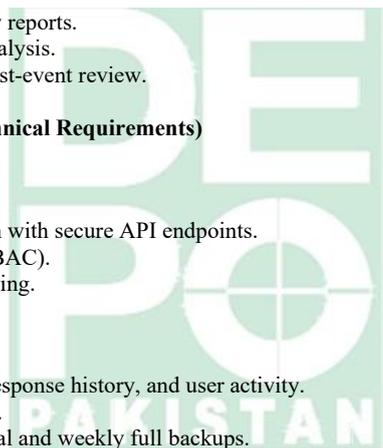
- Store incident logs, evidence, response history, and user activity.
- Audit logs for all modifications.
- Backup policy: daily incremental and weekly full backups.

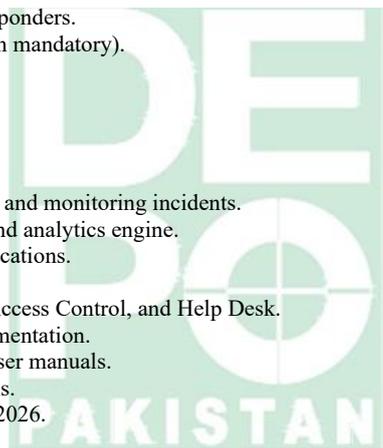
#### 5.3 Workflow Engine

- Auto-generate incident ID.
- Assign and escalate incidents automatically based on severity.
- SLA tracking and notification triggers.
- Prevent deletion of critical incident logs.

#### 5.4 Security & Compliance

- SSL/TLS encryption for data in transit.
- Data encryption at rest.
- Two-factor authentication for admins.
- GDPR / local data protection compliance.
- Tamper-proof logging and audit trails.





**5.5 Performance Requirements**

- Support 500+ concurrent incident reports.
- Real-time updates with latency < 2 seconds.
- 99.5% uptime during exhibition.
- Scalable for peak event days.

**5.6 Analytics Dashboard**

- Total incidents logged.
- Incident type distribution (security, medical, fire, technical).
- Response times & SLA compliance.
- Zone-wise heatmaps and trend analysis.
- Exportable charts (bar, pie, line graphs).

**6. Non-Functional Requirements**

- Mobile-friendly for on-field responders.
- Multi-language support (English mandatory).
- High-availability infrastructure.
- Intuitive and modern UI/UX.

**7. Deliverables**

- Frontend interface for reporting and monitoring incidents.
- Backend workflow, database, and analytics engine.
- Real-time dashboard with notifications.
- Reporting and export modules.
- Integration APIs with CCTV, Access Control, and Help Desk.
- Security and compliance implementation.
- Technical documentation and user manuals.
- Staff training for IMS operations.
- On-site support during IDEAS 2026.

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost

***Terms of Reference (TORs)***

**Communication Log Tracking System (CLTS)  
International Defence Exhibition & Seminar (IDEAS 2026)**

**1. Background**

IDEAS 2026 involves multiple stakeholders including exhibitors, delegates, sponsors, staff, and VIPs. To ensure accountability, traceability, and efficient coordination, a centralized **Communication Log Tracking System (CLTS)** is required to record, monitor, and report all official communications across the event, including emails, calls, messages, and notifications.

## 2. Objectives

The Communication Log Tracking System aims to:

- Digitally record all event-related communications for audit and operational purposes.
- Provide real-time monitoring of communication exchanges between staff, stakeholders, and service providers.
- Enable follow-up actions, escalations, and tracking of responses.
- Generate analytical reports to improve communication efficiency and decision-making.

## 3. Scope of Work

The system shall include:

- Frontend interface for users to log, view, and manage communications.
- Backend database, workflow engine, and analytics dashboard.
- Integration with other IDEAS systems (Help Desk, Incident Management, Event Management, Transportation, Auto Email/WhatsApp Modules).
- Notification and alert system for pending actions or escalations.

## 4. Frontend TORs (User Interface Requirements)

### 4.1 User Roles

- Admin
- Communication Officer
- Event Coordinator
- Help Desk Staff
- Security Coordinator
- Logistics Officer

### 4.2 Communication Logging

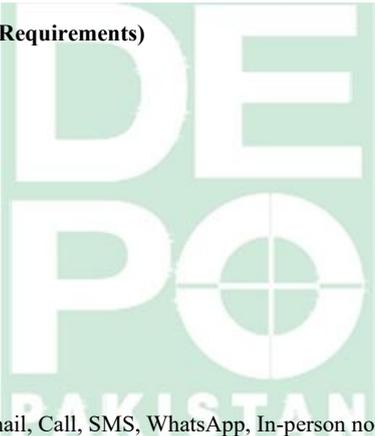
- Record communication type: Email, Call, SMS, WhatsApp, In-person note.
- Capture sender, receiver, timestamp, subject, reference ID (if any), and description.
- Upload attachments (documents, images, or screenshots).
- Tag communication with relevant category (Security, Logistics, Event Operations, VIP Coordination, etc.).

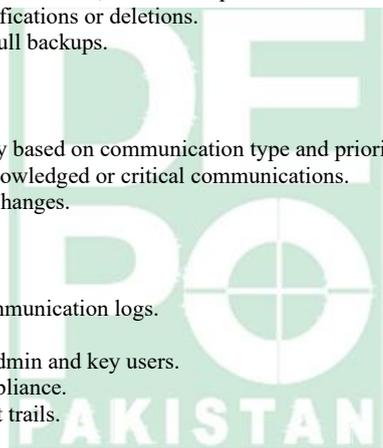
### 4.3 Follow-Up & Escalation

- Flag communications for follow-up with due date and priority.
- Auto-escalation for overdue or unacknowledged communications.
- Notification to assigned officer via email/SMS/WhatsApp.

### 4.4 Dashboard & Monitoring

- View real-time communication logs filtered by date, type, sender, receiver, or category.
- Color-coded status indicators: Pending, Acknowledged, Completed.
- Search and filter functions for audit or operational review.





#### 4.5 Reporting & Export

- Daily, weekly, and monthly communication summary reports.
- Stakeholder-specific reports for VIPs, Exhibitors, Sponsors.
- Exportable reports in Excel/PDF format.

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

- Centralized web-based platform with secure API endpoints.
- Role-Based Access Control (RBAC).
- Cloud-ready or on-premise deployment.

#### 5.2 Database Management

- Store all communication logs, attachments, and status updates.
- Maintain audit trail for all modifications or deletions.
- Daily incremental and weekly full backups.

#### 5.3 Workflow Engine

- Assign follow-ups automatically based on communication type and priority.
- Escalation hierarchy for unacknowledged or critical communications.
- Notification triggers for status changes.

#### 5.4 Security & Compliance

- SSL/TLS encryption for all communication logs.
- Data encryption at rest.
- Two-factor authentication for admin and key users.
- GDPR / local data privacy compliance.
- Tamper-proof logging and audit trails.

#### 5.5 Performance Requirements

- Support 5,000+ concurrent communication entries.
- Real-time updates with latency < 2 seconds.
- 99.5% uptime during the event.

#### 5.6 Analytics Dashboard

- Total communications sent, received, pending, and escalated.
- Category-wise communication analysis (Security, Logistics, Operations, VIP, etc.).
- User activity reports (who sent/received/logged).
- Time-to-response metrics.
- Exportable charts: bar, pie, timeline graphs, heatmaps.

**6. Non-Functional Requirements**

- Mobile-friendly interface for on-field staff.
- Multi-language support (English mandatory).
- High-availability and scalable cloud infrastructure.
- Intuitive and modern UI/UX.

**7. Deliverables**

- Frontend interface for logging and monitoring communications.
- Backend database, workflow engine, and analytics dashboard.
- Notification and escalation system.
- Reports and export functionality (Excel/PDF).
- Integration APIs with other IDEAS modules.
- Security and compliance implementation.
- Technical documentation and user manuals.
- Staff training for IDEAS/DEPO personnel.
- On-site operational support during IDEAS 2026.

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*Terms of Reference (TORs)*  
**Emergency Response Coordination System (ERCS)**  
**International Defence Exhibition & Seminar (IDEAS 2026)**

**1. Background**

IDEAS 2026 is a high-security international defense exhibition involving VIP delegations, foreign participants, military officials, exhibitors, and large public attendance. Due to the scale and sensitivity of the event, a centralized **Emergency Response Coordination System (ERCS)** is required to ensure rapid, structured, and coordinated response to emergencies such as medical incidents, fire hazards, security threats, crowd control issues, technical failures, and natural disasters.

The system will enable real-time coordination between security teams, medical units, fire services, law enforcement, and event management authorities.

**2. Objectives**

The ERCS aims to:

- Provide a centralized digital platform for emergency reporting and coordination.
- Ensure rapid dispatch and response tracking.
- Enable communication between response teams and command center.
- Monitor response times and resolution status.
- Maintain complete documentation for audit and post-event review.

**3. Scope of Work**

The selected vendor shall:

- Develop a web-based Emergency Response Coordination platform.
- Provide real-time dashboard and alert system.
- Integrate with Incident Management, CCTV, Access Control, Communication Logs, and Attendance systems.
- Implement automated escalation workflows.
- Ensure high availability and secure architecture.

#### **4. Frontend TORs (User Interface Requirements)**

##### **4.1 User Roles**

- Admin
- Emergency Command Center Head
- Security Supervisor
- Medical Response Team Lead
- Fire Safety Officer
- Police Liaison Officer
- Hall Security Officer
- Technical Support Lead

##### **4.2 Emergency Reporting Interface**

- One-click “Emergency Alert” button.
- Quick incident capture form (Type, Location, Severity, Description).
- GPS/location tagging (for mobile users).
- Upload supporting media (photos/videos).
- Auto-generated emergency reference number.

##### **4.3 Real-Time Coordination Dashboard**

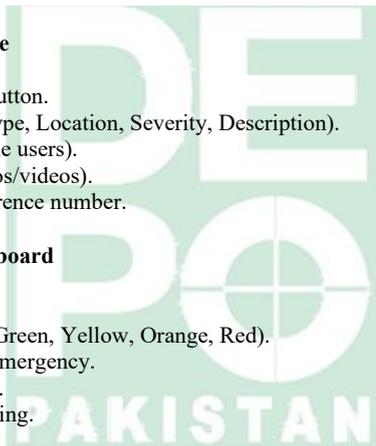
- Live emergency status board.
- Incident severity color coding (Green, Yellow, Orange, Red).
- Map-based location display of emergency.
- Assigned response team display.
- Countdown timer for SLA tracking.

##### **4.4 Dispatch & Task Assignment**

- Assign response teams instantly.
- Automatic notification to relevant departments.
- Acknowledgment tracking from responders.
- Multi-team coordination capability.

##### **4.5 Alerts & Notifications**

- SMS / Email / App push notifications.
- Siren or pop-up alert in command center.
- Escalation to higher authority if response delay exceeds threshold.
- Broadcast alert to all relevant stakeholders (if required).



#### 4.6 Resolution & Closure

- Record response actions taken.
- Capture time-to-arrival and time-to-resolution.
- Mark as resolved/closed with remarks.
- Post-incident review notes section.

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

- Centralized web-based emergency management platform.
- Cloud-ready or on-premise deployment.
- Role-Based Access Control (RBAC).
- API-based integration with other IDEAS modules.

#### 5.2 Workflow & Automation Engine

- Automated routing based on emergency type.
- Configurable escalation hierarchy.
- SLA configuration and breach alerts.
- Auto-log generation for audit trail.

#### 5.3 Integration Requirements

System must integrate with:

- CCTV Surveillance Module (auto-open relevant camera feed)
- Incident Management System
- Communication Log Tracking
- Access Control System
- Attendance Tracking
- Help Desk & Ticketing
- SMS/Email Gateway
- Public Announcement System (if applicable)



#### 5.4 Security & Compliance

- SSL/TLS encrypted communication.
- Data encryption at rest.
- Multi Factor Authentication (MFA)
- Tamper-proof logging and audit trails.

#### 5.5 Performance Requirements

- Emergency alert broadcast in  $\leq 5$  seconds.
- System response latency  $< 2$  seconds.
- 99.9% uptime during exhibition days.
- Capable of handling 1,000+ concurrent users.
- High availability with automatic failover.

**5.6 Reporting & Analytics**

- Emergency type distribution analysis.
- Response time analytics.
- Zone-wise emergency heatmap.
- SLA compliance reports.
- Exportable reports (Excel/PDF).
- Post-event comprehensive emergency summary report.

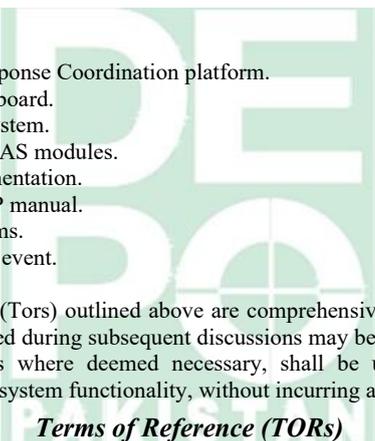
*6. Non-Functional Requirements*

- Mobile-responsive interface for on-field teams.
- Multi-language support (English mandatory)
- Offline capture mode (if connectivity disrupted).
- Disaster recovery and backup mechanism.
- Dedicated support during IDEAS 2026 event days.

*7. Deliverables*

- Fully functional Emergency Response Coordination platform.
- Real-time command center dashboard.
- Integrated alert & notification system.
- Integration with all relevant IDEAS modules.
- Security and compliance implementation.
- Technical documentation & SOP manual.
- User training for emergency teams.
- On-site technical support during event.

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost



***Terms of Reference (TORs)***

**Social Media Monitoring Tool (SMMT)**

**International Defence Exhibition & Seminar (IDEAS 2026)**

**1. Background**

IDEAS 2026 attracts national and international attention across various social media platforms. A centralized **Social Media Monitoring Tool (SMMT)** is required to track event-related mentions, hashtags, posts, comments, and trends in real-time. This tool will help organizers manage the event’s online presence, detect potential issues, analyze engagement, and respond promptly to public queries or incidents.

**2. Objectives**

The Social Media Monitoring Tool aims to:

- Monitor social media platforms for IDEAS-related content in real-time.
- Analyze public sentiment, engagement, and trending topics.
- Identify potential security, PR, or operational issues early.

- Enable actionable insights for event management and communication teams.
- Generate reports for post-event analysis and planning.

### 3. Scope of Work

The vendor shall:

- Develop a web-based dashboard for real-time social media monitoring.
- Enable integration with major social media platforms (Twitter/X, Facebook, Instagram, LinkedIn, YouTube).
- Provide analytics, alerts, and reporting functionalities.
- Integrate with Communication & Incident Management systems for rapid response.

### 4. Frontend TORs (User Interface Requirements)

#### 4.1 User Roles

- Admin
- Social Media Manager
- Communication Officer
- PR / Media Liaison
- Event Organizer

#### 4.2 Real-Time Monitoring Dashboard

- Track hashtags, keywords, mentions, and posts related to IDEAS 2026.
- Filter by platform, location, language, and sentiment.
- Live feed with color-coded sentiment analysis (Positive / Neutral / Negative).
- Highlight trending topics and viral content.

#### 4.3 Alerts & Notifications

- Instant alerts for negative mentions, security concerns, or PR issues.
- Configurable thresholds for alert triggers.
- Push notifications to mobile app or email.
- Escalation workflow to communication and incident teams.

#### 4.4 Analytics & Reporting

- Engagement metrics (likes, shares, comments, retweets).
- Sentiment distribution over time.
- Influencer and key account tracking.
- Hashtag usage frequency and trend analysis.
- Exportable reports (PDF/Excel) for post-event review.

#### 4.5 Response Interface

- Comment, reply, or flag posts directly from the dashboard (optional integration with social media accounts).
- Track response times and resolutions.
- Maintain an audit trail of actions taken.



**5. Backend TORs (System & Technical Requirements)**

**5.1 System Architecture**

- Centralized web-based system with cloud-ready deployment.
- Role-Based Access Control (RBAC).
- Scalable to handle high volume of social media data during peak event days.
- API integrations with social media platforms.

**5.2 Data Management & Storage**

- Secure storage of collected posts, comments, and media.
- Retention policy: minimum 90 days post-event.
- Indexed and searchable by keyword, user, location, or sentiment.
- Daily backup and disaster recovery mechanism.

**5.3 Analytics Engine**

- Real-time sentiment analysis using NLP techniques.
- Trend detection and influencer identification.
- Automated tagging of posts by relevance, sentiment, and priority.
- Generate metrics for dashboards and reports.

**5.4 Security & Compliance**

- SSL/TLS encrypted communication.
- Data privacy compliance (GDPR / local regulations).
- Secure login with Multi-factor authentication (MFA) for admin users.
- Audit logs for all data access and actions.

**5.5 Performance Requirements**

- Support monitoring of 100,000+ posts per day.
- Real-time feed latency < 5 seconds.
- Dashboard response time < 2 seconds.
- High availability: 99.5% uptime during IDEAS 2026.

**5.6 Integration Requirements**

- Communication Log Tracking module.
- Incident Management System for negative/critical alerts.
- Event Management & PR modules.
- Email/SMS alert gateway for urgent notifications.

**6. Non Functional Requirements**

- Mobile-friendly interface for on-field PR and communications team.
- Multi-language support (English mandatory).
- Cloud-ready with scalable architecture for peak traffic.
- Intuitive UI/UX with customizable dashboards.



**7. Deliverables**

- Social Media Monitoring Tool (web-based dashboard).
- Real-time alert & notification system.
- Analytics & reporting dashboard.
- Integration with IDEAS communication and incident systems.
- Security & compliance implementation.
- Technical documentation and user manual.
- Training for IDEAS communication/PR team.
- On-site support during IDEAS 2026

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**Terms of Reference (TORs)  
Meetings and MOU Management System  
International Defence Exhibition & Seminar 2026**

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**1. Background**

The International Defence Exhibition & Seminar (IDEAS 2026) requires a B2B/B2G Meetings Management System to schedule, organize, and manage business-to-business meetings between:

- Exhibitors
- Sponsors
- Trade visitors
- Delegates

The system must facilitate meeting requests, confirmations, scheduling, reminders, and reporting, integrating seamlessly with registration, pass, and event management modules to ensure smooth coordination.

**2. Objectives**

The B2B Meetings Management System aims to:

- Enable exhibitors and visitors to request and schedule B2B meetings
- Manage meeting confirmations, reschedules, and cancellations
- Assign meeting slots based on availability and priority
- Send automatic notifications and reminders
- Track meeting history and outcomes
- Provide analytics for event organizers on B2B interactions
- Integrate with mobile apps, pass systems, and calendar tools

**3. Scope of Work**

The system shall include:

- Frontend (User Interface for Exhibitors, Visitors, and Admins)

- Backend (Database, Scheduling Engine, and Notification System)
- Meeting Request & Scheduling Module
- Calendar & Slot Management Module
- Notifications & Reminder System
- Meeting Analytics & Reporting Dashboard

#### **4. Frontend TORs (User Interface Requirements)**

##### **4.1 User Roles**

- Admin
- Event Coordinator / Organizer
- Exhibitor
- Sponsor
- Trade / Group Visitor
- VIP / Delegation Representative
- Staff / Support

##### **4.2 Meeting Request & Scheduling Module**

- Exhibitors and visitors can request meetings with:
  - Date & time preferences
  - Duration of meeting
  - Purpose / agenda of meeting
- View available time slots
- Accept, reject, or reschedule meeting requests
- Integration with personal calendars (Google, Outlook, Harmony Calendar)

##### **4.3 Notifications & Reminder Module**

- Auto notifications on:
  - Meeting request received
  - Meeting confirmed
  - Meeting rescheduled or canceled
  - 1-hour / 30-minutes reminder
- Push notifications via Mobile App (Android / iOS / Harmony)
- Email & SMS notifications via Auto Email Module

##### **4.4 Meeting Dashboard**

- View upcoming meetings
- Meeting history & outcomes

- Filter by date, exhibitor, visitor, or VIP
- Real-time status of all scheduled meetings
- Track meeting participation & attendance

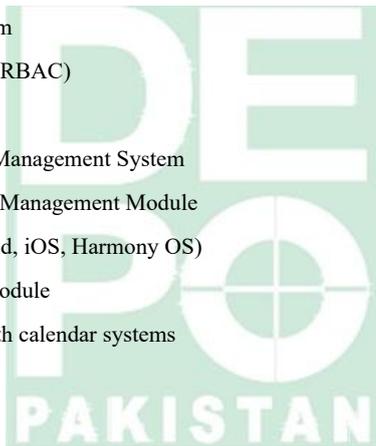
#### 4.5 Admin / Organizer Dashboard

- View all meeting requests & confirmations
- Assign meeting rooms or halls
- Manage priority for VIP or sponsor meetings
- Generate reports on total meetings per exhibitor / visitor
- Track meeting trends and peak hours

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

- Centralized web-based system
- Role-Based Access Control (RBAC)
- Integration with:
  - Registration & Pass Management System
  - Exhibitor & Sponsor Management Module
  - Mobile Apps (Android, iOS, Harmony OS)
  - Auto Email / SMS Module
- API-ready for integration with calendar systems



#### 5.2 Database Requirements

System must store:

- User profiles & roles
- Meeting requests & scheduling data
- Meeting confirmations & cancellations
- Notifications & reminders history
- Room / hall allocation for meetings
- Audit logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan

#### 5.3 Scheduling & Workflow Engine

- Meeting request workflow: Requested → Pending → Confirmed / Rejected → Completed

- Conflict detection for overlapping meetings
- Auto-assign available slots based on priority
- Real-time updates for participants and organizers
- Track duration, attendance, and outcome of meetings

#### 5.4 Security & Compliance

- SSL/TLS encryption
- Role-based access control
- Secure storage of meeting and personal data
- GDPR / local data privacy compliance
- Audit-ready logging of all changes

#### 5.5 Performance Requirements

- Support 2,000+ concurrent users
- Real-time meeting request updates < 2 seconds
- Mobile app notifications < 5 seconds
- Scalable for last-minute meeting requests during peak hours

#### 5.6 Analytics Dashboard (Admin View)

Admin must view:

- Total meeting requests, confirmations, cancellations
- Exhibitor / visitor meeting trends
- Meeting density by date, hall, or slot
- VIP / Sponsor meeting prioritization
- Feedback on meeting outcomes



Charts Required:

- Bar charts (requests vs confirmed meetings)
- Pie charts (meeting type / participant category)
- Time-series line charts (peak hours for meetings)
- Heatmaps (room or hall occupancy)

#### 6. Non-Functional Requirements

- Mobile & tablet-friendly interface
- High availability & cloud-ready infrastructure
- Multi-language support (English mandatory)
- Push notifications and email alerts
- Audit-ready reporting & export capability

- Integration-ready with other IDEAS 2026 modules

## 7. Deliverables

Vendor shall provide:

1. Frontend User Interface for Exhibitors, Visitors, and Admins
2. Backend Scheduling & Database System
3. Meeting Request & Calendar Management Module
4. Notifications & Reminder System (Push, Email, SMS)
5. Real-Time Admin Dashboard & Analytics
6. Technical Documentation
7. User Manual & Staff Training
8. On-site operational support during IDEAS 2026
9. Audit-ready reports for all B2B meetings

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# Terms of Reference (TORs) Android Mobile Application for IDEAS 2026 International Defence Exhibition & Seminar 2026

## 1. Background

The International Defence Exhibition & Seminar (IDEAS 2026) requires a mobile application for Android to provide real-time access to event information, services, and modules for:

- Exhibitorss
- Sponsors
- Visitors (Trade, Group, VIP/VVIP)
- Staff & Security Personnel

The Android app must integrate with all backend systems, providing live updates, interactive services, notifications, and digital engagement for users. It should be secure, responsive, and user-friendly.

## 2. Objectives

The Android App aims to:

- Provide mobile access to exhibition information
- Integrate with registration, pass, and badge systems
- Display hall layouts, schedules, and vendor information
- Enable communication through chatbots and notifications

- Support ticketing, bookings, and payments
- Provide emergency alerts and safety notifications
- Ensure seamless integration with IDEAS 2026 backend systems

### 3. Scope of Work

The Android App shall include:

- Frontend Mobile App Interface
- Backend APIs & Data Integration
- User Authentication & Role Management
- Interactive Hall & Event Information
- Notifications & Alert System
- Payment & Registration Integration
- Analytics & Usage Tracking

### 4. Frontend TORs (User Interface Requirements)

#### 4.1 User Roles

- Exhibitor
- Sponsor
- Trade Visitor / Group Visitor
- VIP/VVIP
- Staff / Security
- Admin (mobile access for monitoring)

#### 4.2 User Authentication

- Registration via email / phone /
- Integration with Pass Management & Registration Systems
- Role-based access control
- Password recovery / OTP verification
- Two-Factor Authentication for VIP/Admin roles

#### 4.3 Event & Hall Information Module

- Interactive hall maps (clickable stalls & zones)
- Schedule of seminars, conferences, and workshops
- List of exhibitors and sponsors
- Real-time updates on hall occupancy
- Search & filter functionality

#### 4.4 Visitor Services Module



- Ticket / Pass display (QR / Barcode)
- Booking for seminars & sessions
- Event notifications & reminders
- Emergency alerts (Safety / Security notifications)
- Lost & Found reporting

#### 4.5 Exhibitor & Sponsor Module

- Exhibitor profile & stall details
- Sponsor branding zones information
- Contact / communication interface
- Feedback module

#### 4.6 Vendor / Staff Module

- Assigned tasks & work orders
- Safety & emergency instructions
- Attendance / check-in interface
- Real-time notifications

#### 4.7 Notification & Alert Module

- Push notifications for:
  - Event updates
  - Safety alerts
  - Schedule changes
- Custom notifications per user role

#### 4.8 Feedback & Chat Module

- Feedback submission interface
- Ticketing for issues (linked with Help Desk Module)

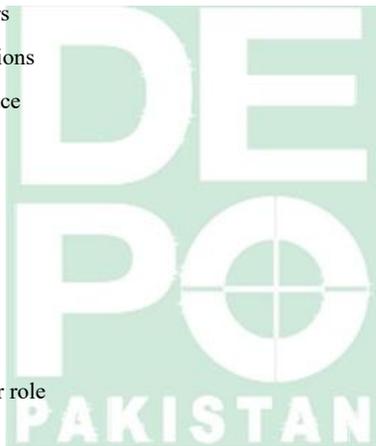
#### 4.9 Reports & Dashboard (Admin Mobile View)

- Real-time app usage statistics
- Active users & session duration
- Hall occupancy tracking
- Notifications sent & read

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

- Android App connected via secure APIs
- Centralized backend server (cloud or on-premise)



- Integration with:
  - Registration & Pass Management System
  - Space Sale Module
  - Exhibitor / Vendor Management System
  - Security & Incident Management System
  - Transportation & Logistics System
  - Auto Email / SMS Module
- Scalable API architecture for concurrent users

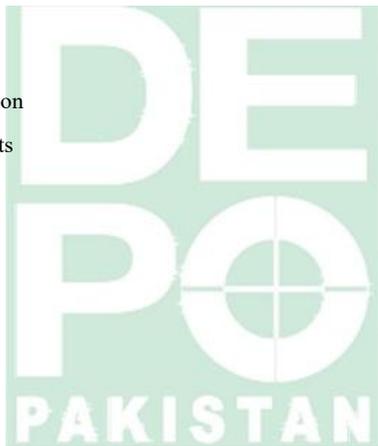
## 5.2 Database Requirements

Backend must store:

- User profiles & roles
- Pass / ticket records
- Event schedules & hall data
- Exhibitor / sponsor information
- Feedback & Help Desk tickets
- Notifications & alert history
- App usage logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan



## 5.3 API & Integration Engine

- RESTful APIs for mobile data access
- Secure endpoints with authentication tokens
- Real-time updates from backend modules
- Sync offline data for mobile users in low connectivity areas
- Push notification integration (Firebase or equivalent)

## 5.4 Security & Compliance

- SSL/TLS encryption
- OAuth 2.0 authentication
- Role-based access control
- Secure storage of sensitive data on device
- Regular security audits

- GDPR / local data privacy compliance

### 5.5 Performance Requirements

- Support 5,000+ concurrent mobile users
- Real-time updates < 3 seconds
- Smooth UI/UX on Android 8.0+ devices
- Offline mode for limited functionality
- Push notifications delivered < 5 seconds

### 5.6 Analytics Dashboard (Backend Admin View)

- Active user metrics
- Module-wise usage statistics
- Session duration & engagement
- Notification delivery & read rate
- Event participation tracking

Charts Required:

- Bar charts
- Pie charts
- Heatmaps
- Time-series line graphs

### 6. Non-Functional Requirements

- Mobile-responsive & intuitive interface
- High availability & cloud-ready
- Multi-language support (English mandatory)
- Push notification capability
- Audit-ready reporting
- Scalable backend infrastructure

### 7. Deliverables

Vendor shall provide:

1. Android App (Frontend)
2. Backend API & Database System
3. User Authentication & Role Management
4. Event & Hall Information Module
5. Notification & Alert System
6. Feedback Module



7. Admin Dashboard (Mobile + Web)
8. Technical Documentation
9. User Manual & Staff Training
10. On-site operational support during IDEAS 2026

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## **Terms of Reference (TORs)**

### **IOS Mobile Application for IDEAS 2026**

### **International Defence Exhibition & Seminar 2026**

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#### **1. Background**

The International Defence Exhibition & Seminar (IDEAS 2026) requires a dedicated iOS mobile application to provide real-time access to event services and information for:

- Exhibitors
- Sponsors
- Trade & Group Visitors
- VIP/VVIPs
- Event Staff & Security Personnel

The iOS app must mirror the Android app functionality, providing interactive, secure and real-time access to all backend modules while maintaining seamless integration with IDEAS 2026 systems.

#### **2. Objectives**

The iOS App aims to:

- Deliver mobile access to event schedules, hall layouts, exhibitors, and sponsors
- Enable pass display, ticketing, and registration management
- Integrate with backend systems for real-time updates
- Send push notifications, alerts, and emergency messages
- Facilitate feedback submission
- Ensure high security and compliance with event standards

#### **3. Scope of Work**

The system shall include:

- iOS App Frontend
- Backend API & Data Integration
- User Authentication & Role Management

- Event & Hall Information Module
- Ticketing, Pass & Badge Integration
- Notification & Alert System
- Feedback Module
- Analytics & Usage Tracking Dashboard



## 4. Frontend TORs (User Interface Requirements)

### 4.1 User Roles

- Exhibitor
- Sponsor
- Trade Visitor / Group Visitor/Singler Visitor
- VIP/VVIP
- Staff / Security
- Admin (mobile access for monitoring)

### 4.2 User Authentication

- Registration via email / phone / Apple ID
- Integration with Pass Management & Registration System
- Role-based access control
- Password recovery / OTP verification
- Two-Factor Authentication for VIP/Admin roles

### 4.3 Event & Hall Information Module

- Interactive hall maps (clickable stalls & zones)
- Event schedule (seminars, workshops, conferences)
- List of exhibitors and sponsors
- Search and filter options

### 4.4 Visitor Services Module

- Pass/ticket display with QR / Barcode
- Seminar & session booking
- Event notifications & reminders
- Emergency alerts (Safety / Security)
- Lost & Found reporting

### 4.5 Exhibitor & Sponsor Module

- Exhibitor profile & stall details
- Sponsor branding and zone information

- Contact & communication interface
- Feedback module

#### **4.6 Vendor / Staff Module**

- Assigned tasks & work orders
- Safety & emergency instructions
- Attendance / check-in interface
- Real-time notifications

#### **4.7 Notification & Alert Module**

- Push notifications for:
  - Event updates
  - Safety & security alerts
  - Schedule changes
- Role-specific notifications

#### **4.8 Feedback Module**

- Feedback submission interface
- Ticketing for issues linked with Help Desk Module

#### **4.9 Admin Mobile Dashboard**

- Real-time app usage metrics
- Hall occupancy tracking
- Active users & session statistics
- Notification delivery & read status
- Booking & payment confirmations



## **5. Backend TORs (System & Technical Requirements)**

### **5.1 System Architecture**

- iOS App connected via secure APIs
- Centralized backend server (cloud or on-premise)
- Integration with:
  - Registration & Pass Management System
  - Space Sale Module
  - Exhibitor / Vendor Management
  - Security & Incident Management
  - Transportation & Logistics
  - Auto Email / SMS Module

- Scalable API architecture for concurrent users

## 5.2 Database Requirements

Backend must store:

- User profiles & roles
- Pass / ticket records
- Event schedules & hall layouts
- Exhibitor & sponsor information
- Booking & payment transactions
- Feedback & Help Desk tickets
- Notifications & alert history
- App usage logs

Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan

## 5.3 API & Integration Engine

- RESTful APIs for mobile data access
- Secure endpoints with authentication tokens
- Real-time data updates from backend modules
- Offline data sync capability
- Push notification integration via APNs (Apple Push Notification Service)

## 5.4 Security & Compliance

- SSL/TLS encryption
- OAuth 2.0 authentication
- Role-based access control
- Secure storage of sensitive data on-device (Keychain)
- Regular security audits
- GDPR / local data privacy compliance

## 5.5 Performance Requirements

- Support 5,000+ concurrent users
- Real-time updates < 3 seconds
- Smooth UI/UX on iOS 13+ devices
- Offline mode for limited functionality



- Push notifications delivered < 5 seconds

#### 5.6 Analytics Dashboard (Backend Admin View)

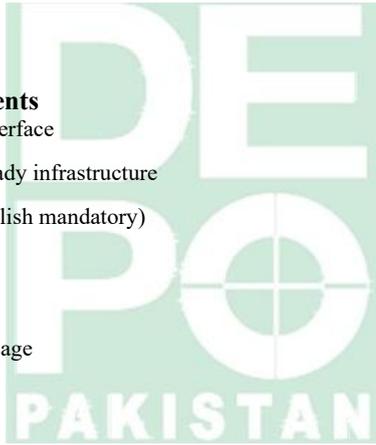
- Active users metrics
- Module-wise usage statistics
- Session duration & engagement
- Notification delivery & read rate
- Event participation tracking
- Payment & booking metrics

Charts Required:

- Bar charts
- Pie charts
- Heatmaps
- Time-series line graphs

#### 6. Non-Functional Requirements

- Mobile-friendly, intuitive interface
- High availability & cloud-ready infrastructure
- Multi-language support (English mandatory)
- Push notification capability
- Audit-ready reporting
- Scalable backend for peak usage



#### 7. Deliverables

Vendor shall provide:

1. iOS App Frontend
2. Backend API & Database System
3. User Authentication & Role Management
4. Event & Hall Information Module
5. Ticketing / Pass / Badge Integration
6. Notification & Alert System
7. Feedback & AI Chatbot Module
8. Admin Dashboard (Mobile + Web)
9. Technical Documentation
10. User Manual & Staff Training

11. On-site operational support during IDEAS 2026

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## **Terms of Reference (TORs)**

### **Harmony OS Mobile Application for IDEAS 2026**

### **International Defence Exhibition & Seminar 2026**

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#### **1. Background**

The International Defence Exhibition & Seminar (IDEAS 2026) requires a Harmony OS mobile application to provide event access and services for exhibitors, visitors, sponsors, and staff using Huawei devices and Harmony OS ecosystem.

The Harmony app must mirror Android and iOS app functionalities, offering interactive features, real-time updates, notifications, and secure integration with all IDEAS 2026 backend systems.

#### **2. Objectives**

The Harmony OS app aims to:

- Provide real-time access to event schedules, hall layouts, and exhibitor/sponsor information
- Support mobile passes, tickets, and badge verification
- Integrate with backend systems for live updates
- Enable push notifications, safety alerts, and emergency messages
- Ensure security, privacy, and compliance

#### **3. Scope of Work**

The system shall include:

- Harmony OS App Frontend
- Backend API & Data Integration
- User Authentication & Role Management
- Event & Hall Information Module
- Ticketing, Pass & Badge Integration
- Notification & Alert System

#### **4. Frontend TORs (User Interface Requirements)**

##### **4.1 User Roles**

- Exhibitor
- Sponsor
- Trade / Group Visitor/Single Visitor

- VIP/VVIP
- Staff / Security
- Admin (mobile access for monitoring)

#### 4.2 User Authentication

- Registration via email, phone, or Huawei ID
- Role-based access control
- Integration with Pass Management & Registration System
- Password recovery / OTP verification
- Two-Factor Authentication for VIP/Admin roles

#### 4.3 Event & Hall Information Module

- Interactive hall maps with clickable stalls & zones
- Event schedule: seminars, workshops, conferences
- List of exhibitors and sponsors
- Real-time hall occupancy updates
- Search & filter options

#### 4.4 Visitor Services Module

- Pass/ticket display (QR / Barcode / NFC if supported)
- Booking for seminars & sessions
- Event notifications & reminders
- Emergency alerts (Safety / Security)
- Lost & Found reporting

#### 4.5 Exhibitor & Sponsor Module

- Exhibitor profile & stall details
- Sponsor branding zones
- Contact & communication interface

#### 4.6 Vendor / Staff Module

- Assigned tasks & work orders
- Safety & emergency instructions
- Attendance / check-in interface
- Real-time notifications

#### 4.7 Notification & Alert Module

- Push notifications for:
  - Event updates



- Safety & security alerts
- Schedule changes
- Payment / booking confirmations
- Role-specific notifications

#### 4.8 Feedback Module

- Feedback submission interface
- Help Desk ticketing integration

#### 4.9 Admin Mobile Dashboard

- Real-time app usage metrics
- Hall occupancy tracking
- Active users & session statistics
- Notifications delivery & read status
- Booking & payment confirmations

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

- Harmony OS app connected via secure APIs
- Centralized backend server (cloud or on-premise)
- Integration with:
  - Registration & Pass Management System
  - Space Sale Module
  - Exhibitor / Vendor Management
  - Security & Incident Management
  - Transportation & Logistics
  - Finance & Payment System
  - Auto Email / SMS Module
- Scalable API architecture for concurrent users

#### 5.2 Database Requirements

Backend must store:

- User profiles & roles
- Pass / ticket records
- Event schedules & hall layouts
- Exhibitor & sponsor information
- Booking & payment transactions



- Feedback & Help Desk tickets
- Notifications & alert history
- App usage logs

#### Backup Policy:

- Daily incremental backup
- Weekly full backup
- Disaster recovery plan

### 5.3 API & Integration Engine

- RESTful APIs for Harmony OS app data access
- Secure endpoints with authentication tokens
- Real-time updates from backend modules
- Offline data sync for low connectivity areas
- Push notification integration (Huawei Push Kit)

### 5.4 Security & Compliance

- SSL/TLS encryption
- OAuth 2.0 authentication
- Role-based access control
- Secure storage of sensitive data on device
- Regular security audits
- GDPR / local data privacy compliance

### 5.5 Performance Requirements

- Support 5,000+ concurrent Harmony OS users
- Real-time updates < 3 seconds
- Smooth UI/UX on Harmony OS 2.0+ devices
- Offline mode for limited functionality
- Push notifications delivered < 5 seconds

### 6. Non-Functional Requirements

- Mobile-friendly & intuitive interface
- High availability & cloud-ready infrastructure
- Multi-language support (English mandatory)
- Push notification capability
- Audit-ready reporting
- Scalable backend for peak usage



**7. Deliverables**

Vendor shall provide:

- 1. Harmony OS App Frontend
- 2. Backend API & Database System
- 3. User Authentication & Role Management
- 4. Event & Hall Information Module
- 5. Ticketing / Pass / Badge Integration
- 6. Notification & Alert System
- 7. Feedback
- 8. Admin Dashboard (Mobile + Web)
- 9. Technical Documentation
- 10. User Manual & Staff Training
- 11. On-site operational support during IDEAS 2026

**Disclaimer:** The term of reference (Tors) outlined above are comprehensive in nature. However, any additions, modifications, or refinement identified during subsequent discussions may be incorporated as required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost

**TERMS OF REFERENCE (TORs)**  
**WeChat Text Messaging Module**  
**International Defense Exhibition & Seminar (IDEAS) 2026**

**1. Background**

IDEAS 2026 requires integration with WeChat to provide instant text-based communication for visitors, exhibitors, sponsors, and staff. The system will send real-time updates, alerts, and notifications, improving engagement and information flow during the event.

**2. Objectives**

- Enable automated and manual text message notifications via WeChat.
- Provide real-time event updates, reminders, and emergency alerts.
- Track message delivery, read status, and engagement metrics.
- Ensure secure and traceable communication with event stakeholders.

**3. Scope of Work**

The vendor shall:

- Develop frontend interface for users to receive WeChat messages.
- Develop backend system to manage text messaging workflows.
- Integrate with IDEAS digital platforms for automated notifications.
- Provide reporting and analytics on messaging activity.



## **4. Frontend TORs (User Interface Requirements)**

### **4.1 User Interaction**

- Receive WeChat messages with event updates and notifications.
- View text messages in real-time on mobile devices.
- Opt-in/opt-out for notifications based on user preferences.

### **4.2 Notification Types**

- Event schedule updates.
- Hall/venue change alerts.
- Emergency announcements.
- Personalized reminders for meetings, seminars, or sessions.

### **4.3 Feedback Option (Optional)**

- Quick reply or acknowledgement button for certain alerts.
- Collect basic responses (Yes/No/Confirm) for attendance or acknowledgment tracking.

## **5. Backend TORs (System & Technical Requirements)**

### **5.1 System Architecture**

- Centralized server with secure API endpoints.
- Role-based access for admins (Super Admin, Communication Officer).
- Integration with IDEAS systems for real-time trigger-based messages.

### **5.2 Messaging Engine**

- Support bulk and individual message sending via WeChat API.
- Track message delivery and read status.
- Store message logs and timestamps for audit purposes.

### **5.3 Security & Compliance**

- SSL/TLS encrypted messaging.
- Role-Based Access Control for admin actions.
- Data privacy compliance for all user communication logs.
- Audit-ready logging of all messages sent.

**5.4 Performance Requirements**

- Support 10,000+ concurrent message recipients.
- Real-time delivery within 2 seconds.
- 99.5% uptime during the event.

**5.5 Analytics & Reporting**

- Dashboard for admin showing total messages sent, read rate, and engagement metrics.
- Exportable reports (Excel/PDF) for post-event review.

**6. Non-Functional Requirements**

- Mobile-friendly interface for recipients.
- Cloud-ready hosting with high availability.
- Multi-language support (English mandatory).
- Scalable to handle peak event communication load.

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**TERMS OF REFERENCE (TORs)**  
**WhatsApp Text Messaging Module**  
**International Defence Exhibition & Seminar (IDEAS 2026)**

**1. Background**

IDEAS 2026 requires integration with WhatsApp to provide instant text-based communication for visitors, exhibitors, sponsors, and staff. The system will send real-time updates, alerts, and notifications, improving engagement and information flow during the event. This module complements the WeChat Messaging Module, enabling communication across a wider audience using WhatsApp.

**2. Objectives**

The WhatsApp Messaging Module aims to:

- Enable **automated and manual text message notifications** via WhatsApp.
- Provide **real-time event updates, reminders, and emergency alerts**.
- Track **message delivery, read status, and engagement metrics**.
- Ensure **secure, traceable, and compliant communication** with all event stakeholders.

**3. Scope of Work**

The vendor shall:

- Develop **frontend interface** for users to receive WhatsApp messages.
- Develop **backend system** to manage messaging workflows and automation.
- Integrate with **IDEAS digital platforms** (Event Management, Registration, Alerts, Emergency Systems) for automated notifications.
- Provide **analytics and reporting** on messaging activity.

#### 4. Frontend TORs (User Interface Requirements)

##### 4.1 User Interaction

- Receive WhatsApp messages with **event updates, alerts, and notifications**.
- View messages in **real-time on mobile devices**.
- **Opt-in / Opt-out** for different types of notifications based on user preference.

##### 4.2 Notification Types

- Event schedule updates.
- Hall/venue changes or session alerts.
- Emergency announcements and instructions.
- Personalized reminders for meetings, seminars, or VIP sessions.

##### 4.3 Feedback Option (Optional)

- Quick reply or acknowledgment button for certain messages.
- Collect **Yes/No/Confirm** responses for attendance or acknowledgment tracking.

#### 5. Backend TORs (System & Technical Requirements)

##### 5.1 System Architecture

- Centralized server with **secure API endpoints**.
- Role-based access for administrators (Super Admin, Communication Officer).
- Integration with **IDEAS modules** for trigger-based or automated notifications.

##### 5.2 Messaging Engine

- Support **bulk and individual message sending** via WhatsApp Business API.
- Track **delivery and read status** of each message.
- Store **message logs and timestamps** for audit purposes.

##### 5.3 Security & Compliance

- **SSL/TLS encrypted** messaging.
- Role-Based Access Control (RBAC) for admin actions.
- Compliance with **data privacy laws and regulations**.
- **Audit-ready logs** for all messages sent.

##### 5.4 Performance Requirements

- Support **10,000+ concurrent recipients**.
- Real-time message delivery within **2 seconds**.
- Maintain **99.5% uptime** during the event.

##### 5.5 Analytics & Reporting

- Admin dashboard showing **total messages sent, delivery and read rate, engagement metrics**.
- Exportable reports in **Excel / PDF** for post-event review.

#### 6. Non-Functional Requirements

- Mobile-friendly interface for recipients.
- Cloud-ready deployment with **high availability**.
- Multi-language support (English mandatory).
- Scalable to handle **peak messaging loads** during event days.

### *Terms of Reference (TORs)*

## **Post Expo Reporting & Analytics System (PERAS) International Defence Exhibition & Seminar (IDEAS 2026)**

### **1. Background**

IDEAS 2026 requires a centralized Post Expo Reporting & Analytics System to generate detailed insights and reports after the event. The system will consolidate data from all event modules, including attendance, visitor demographics, exhibitor performance, security incidents, financials, and operational workflows, to enable organizers, directors, and stakeholders to review performance and plan improvements for future editions.

## 2. Objectives

- Consolidate data from all IDEAS 2026 modules for post-event review.
- Generate actionable insights and KPI reports for management and stakeholders.
- Enable visualization of trends, operational efficiency, and performance metrics.
- Provide exportable reports in multiple formats for auditing and archival.

## 3. Scope of Work

- Develop a **frontend interface** for organizers, directors, and stakeholders to view reports.
- Develop a **backend system** for data aggregation, processing, analytics, and reporting.
- Integrate with all IDEAS 2026 modules including Pass Management, Event Management, Security, Finance, Exhibitor & Sponsor Management, and Feedback Systems.
- Provide dashboards, charts, tables, and exportable reports (Excel/PDF).

## 4. Frontend TORs (User Interface Requirements)

### 4.1 User Roles

- Admin / Event Director
- Department Heads (Security, Finance, Operations, Exhibitor Management)
- Analysts / Reporting Officers

### 4.2 Dashboard & Reporting Features

- Overview of total visitors, category-wise attendance, and demographics.
- Exhibitor performance reports (visitor engagement, leads collected, booth traffic).
- Financial summaries (sponsorship, stall revenue, expenses).
- Security and incident logs summarized by type, location, and severity.
- Event operations metrics (session attendance, meeting room usage, helpdesk tickets).
- KPI widgets with drill-down capability.
- Trend visualization over time (line graphs, bar charts).
- Comparative reports across halls, sessions, or days.
- Filters for custom report generation by date, category, or department.

### 4.3 Reports & Export

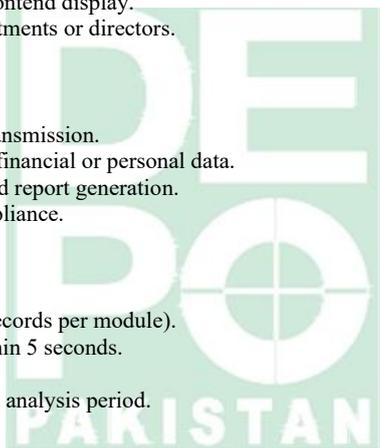
- Daily / Weekly / Post-Event summary reports.
- Export options: PDF, Excel, CSV.
- Customizable dashboards per user role.
- Alerts for key KPIs or unusual metrics.

## 5. Backend TORs (System & Technical Requirements)

### 5.1 System Architecture

- Centralized web-based server with secure API endpoints.
- Role-Based Access Control (RBAC) for users and admins.
- Scalable cloud hosting for large data sets.
- Real-time data aggregation from multiple IDEAS modules.





## 5.2 Data Management

Collect and store data from all modules:

- Pass Management System (attendance, QR scans)
- Event Management System (sessions, RSVPs)
- Security & Incident Management (alerts, incidents)
- Financial System (payments, sponsorship)
- Exhibitor / Sponsor Analytics (leads, visitor engagement)
- Feedback & Survey Results
- Data normalization, cleaning, and aggregation for analysis.
- Daily backup and disaster recovery mechanism.

## 5.3 Analytics Engine

- KPI computation (attendance, engagement, revenue, incident rates, feedback scores).
- Trend analysis and predictive insights for future planning.
- Chart & graph generation for frontend display.
- Custom report builder for departments or directors.

## 5.4 Security & Compliance

- SSL/TLS encryption for data transmission.
- Encrypted storage for sensitive financial or personal data.
- Audit logs for all data access and report generation.
- GDPR / local data privacy compliance.

## 5.5 Performance Requirements

- Handle large datasets (50,00+ records per module).
- Real time report generation within 5 seconds.
- Support 500+ concurrent users.
- 99.5% uptime during post-event analysis period.

## 5.6 Integration Requirements

- REST API integration with all IDEAS 2026 systems.
- Webhooks for automated data updates from live modules.
- Integration with email and notification systems for report distribution.

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***Terms of Reference (TORs)***  
**Integrated Modules Dashboard (Tiered Dashboard)**  
**International Defence Exhibition & Seminar (IDEAS 2026)**

**1. Background**

IDEAS 2026 consists of multiple digital systems, including Pass Management, Event Management, Logistics, Transportation, AI Chatbot, B2B Meetings, Badge Printing, Security & CCTV, Social Media Monitoring, and more. To streamline operational oversight, a centralized **Integrated Modules Dashboard** is required to consolidate data, analytics, alerts, and KPIs from all event systems into a single, tiered interface for real-time decision-making.

**2. Objectives**

- The Integrated Modules Dashboard aims to:
- Provide a single-pane view of all IDEAS digital modules.
- Enable real-time monitoring, alerts, and analytics across event operations.
- Facilitate hierarchical access for different user roles (Tiered Dashboard).
- Support rapid decision-making and post-event reporting.

**3. Scope of Work**

The vendor shall:

- Develop a web-based, tiered dashboard integrating all IDEAS modules.
- Provide real-time visualizations, KPIs, and alerts for operational and security teams.
- Enable role-based access for administrators, supervisors, and operational staff.
- Include reporting, analytics, and export functionality for post-event analysis.

**4. Frontend TORs (User Interface Requirements)**

**4.1 User Roles**

**Admin:** Full access to all modules and analytics.

**Module Admins:** Access limited to their specific module data (Logistics, Transport, Security, etc.).

**Event Coordinator / Supervisor:** Operational oversight with summarized data.

**Security / Incident Team:** Access to security and emergency modules.

**4.2 Dashboard Features**

- Tiered / hierarchical layout based on user role.
- Real-time status indicators for each module (Green/Yellow/Red).
- Quick access tiles for key operations:
  - ◆ Pass & Badge issuance
  - ◆ Event schedule & attendee stats
  - ◆ Transportation & Parking status
  - ◆ Logistics & Cargo tracking
  - ◆ Security & CCTV alerts
  - ◆ B2B meeting summaries
  - ◆ Social media monitoring trends
- Drill-down capability for detailed view from summary tiles.

- Customizable widgets for KPIs, alerts, and charts.
- Mobile & tablet responsive design.

#### 4.3 Alerts & Notifications

- Configurable threshold-based alerts for each module.
- Push notifications via mobile app, email, or SMS for urgent events.
- Escalation workflow based on severity.
- Real-time display of incidents, delays, or exceptions.

#### 4.4 Analytics & Reporting

- Visual dashboards: bar charts, line graphs, heatmaps, pie charts, timelines.
- Module specific KPIs: attendance, transport utilization, logistics clearance, VIP movements, etc.
- Exportable reports in PDF/Excel format.
- Post-event summary reports consolidating all modules.

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

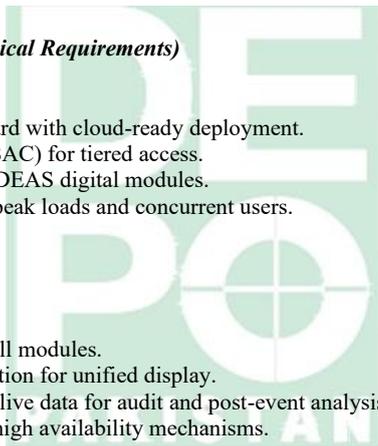
- Centralized, web-based dashboard with cloud-ready deployment.
- Role-Based Access Control (RBAC) for tiered access.
- API-ready integration with all IDEAS digital modules.
- Scalable architecture to handle peak loads and concurrent users.

#### 5.2 Data Management

- Real time data collection from all modules.
- Data normalization and aggregation for unified display.
- Secure storage of historical and live data for audit and post-event analysis.
- Backup, disaster recovery, and high availability mechanisms.

#### 5.3 Integration Engine

- API connectors for:
  - ◆ Pass Management & Badge System
  - ◆ Event Management & Scheduling
  - ◆ Transportation & Vehicle Access
  - ◆ Logistics & Warehouse Modules
  - ◆ AI Chatbot & Communication Logs
  - ◆ Security & CCTV Systems
  - ◆ Social Media Monitoring & Public Engagement
  - ◆ B2B Meetings & Scheduling
  - ◆ Automated data refresh intervals configurable per module.



#### 5.4 Security & Compliance

- SSL/TLS encryption for all communications.
- Multi Factor Authentication for admin users.
- Data encryption at rest for sensitive information.
- GDPR / local data privacy compliance.
- Audit logs for all user access and actions.

#### 5.5 Performance Requirements

- Support 1,500+ concurrent users.
- Real-time dashboard refresh within 2–3 seconds.
- High availability with 99.5% uptime during event days.
- Scalable for additional temporary modules or analytics feeds.

#### 5.6 Analytics Dashboard Features

- Consolidated KPIs for each module and overall event health.
- Drill-down capability to module-specific dashboards.
- Trend analysis and anomaly detection.
- Automated summary and custom reports for management review.

#### 6. Non-Functional Requirements

- Mobile-friendly and tablet-compatible UI.
- Multi-language support (English mandatory).
- Intuitive interface with minimal training required.
- Cloud-ready, high availability, and disaster-resilient.
- Secure hosting environment with role-based data access.

#### 7. Deliverables

- Centralized Tiered Dashboard (Web-based).
- Integration with all IDEAS digital modules via APIs.
- Real-time alerts and notifications system.
- Customizable KPI widgets and drill-down analytics.
- Historical data storage and export functionality.
- Security & compliance implementation.
- Technical documentation and user manual.
- Training for IDEAS/DEPO staff.
- On-site support during IDEAS 2026.

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## **TERMS OF REFERENCE (TORs)**

### **Key Performance Indicator (KPI) Dashboard**

### **International Defense Exhibition & Seminar (IDEAS) 2026**

#### **1. Background**

IDEAS 2026 requires a centralized Performance KPI Dashboard to provide real-time monitoring, analysis, and visualization of key performance indicators across all event modules. The dashboard will assist organizers, directors, and management teams in tracking operational, attendance, financial, and security metrics for strategic and operational decision-making.

#### **2. Objectives**

- Display real-time KPIs across event operations, attendance, revenue, and security.
- Provide drill-down analytics for detailed insights by hall, session, or department.
- Support data-driven decision-making for organizers and directors.
- Generate exportable reports and visual summaries for post-event analysis.

#### **3. Scope of Work**

The vendor shall:

- Develop a responsive **frontend interface** for visualization of KPIs.
- Develop a **backend system** for data aggregation, processing, and analytics.
- Integrate with IDEAS 2026 modules including Pass Management, Event Management, Help Desk, Finance, and Security Systems.
- Provide automated data refresh, alerts, and reporting capabilities.

#### **4. Frontend TORs (User Interface Requirements)**

##### **4.1 User Roles**

- Admin / Event Director
- Department Heads (Attendance, Finance, Security, Logistics)
- Staff / Volunteers (View-only access)

##### **4.2 Dashboard Features**

- **Overview Panel:** Total visitors, active participants, revenue summary, tickets issued.
- **Operational KPIs:** Session attendance, hall occupancy, queue times, help desk response times.
- **Financial KPIs:** Sponsorship targets vs achieved, stall booking revenue, pending payments.
- **Security KPIs:** Security incidents, emergency alerts, zone occupancy, blacklisted attempts.
- **Customizable Widgets:** Drag & drop KPI modules, real-time updates, threshold-based color indicators.

- **Alerts & Notifications:** Automatic visual or email alerts for KPI thresholds.
- **Export & Reporting:** PDF, Excel, and CSV export options for all dashboard metrics.

#### 4.3 Visualization

- Bar Charts, Pie Charts, Line Graphs, Heat maps, Trend Lines, Gauges
- Drill-down analytics by hall, session, department.

### 5. Backend TORs (System & Technical Requirements)

#### 5.1 System Architecture

- Centralized web-based architecture with secure API endpoints.
- Real-time data aggregation from integrated IDEAS modules.
- Role-Based Access Control (RBAC) for dashboard access.
- Scalable architecture to handle 10,000+ concurrent users.

#### 5.2 Data Processing & Analytics Engine

- Collect data from Event Management, Pass Management, Help Desk, Security, and Finance modules.
- Compute KPIs in real-time or scheduled intervals.
- Automated alerts when KPI thresholds are exceeded.
- Store historical data for trend analysis and post-event review.

#### 5.3 Security & Compliance

- SSL/TLS encryption for all data transmission.
- Role-based access and two-factor authentication for admins.
- GDPR/local data privacy compliance.
- Audit logs for all data updates and user interactions.

#### 5.4 Performance Requirements

- Real-time KPI refresh within 2 seconds.
- Support 10,000+ concurrent users.
- 99.5% uptime during the event.
- Scalable for high-volume data during peak hours.

#### 5.5 Reporting & Export

- Generate daily, weekly and post-event KPI reports.
- Exportable formats: Excel, PDF, CSV.
- Dashboard analytics for trend, comparative, and historical metrics.

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required. Integration with all existing essential modules where deemed necessary, shall be undertaken during consultation and refinement phase to ensure seamless system functionality, without incurring any additional cost



## Eligibility And Evaluation Criteria

### Eligibility / Mandatory Criteria / Knock down criteria.

All bidders must meet the following mandatory eligibility criteria. Documentary evidence must be provided for each requirement. Failure to comply with any requirement shall result in the proposal being declared non-responsive and it shall not be considered for further technical evaluation.

Sr. No.	Mandatory Eligibility Requirement	Documentary Evidence Required	Compliant (Yes/No)
1	The bidder must be a legally registered entity with the Securities and Exchange Commission of Pakistan (SECP); or other relevant regulatory authority and must hold a valid Pakistan Software Export Board (PSEB); or (P@SHA) Pakistan Software House Association registration.	Certificate of Incorporation / Registration Certificate and valid PSEB Registration Certificate.	
2	The bidder must be registered with the Federal Board of Revenue (FBR) and must appear on the Active Taxpayers List (ATL).	Copy of NTN Certificate and ATL verification printout; GST / Sales Tax Registration Certificate where applicable.	
3	The bidder must demonstrate a minimum average annual turnover from both national and international sources of PKR 20 Million during the last five (05) financial years.	Audited financial statements for the last three financial years.	
4	The bidder must have a minimum of three (03) years of verifiable operational experience in IT systems development, management systems, or related technology services.	Company profile along with documentary evidence demonstrating years of operations.	
5	The bidder must have successfully completed at least two (02) assignments during the last five (05) years involving IT systems or digital platforms or other related information systems.	Copies of contracts, completion certificates, or client references confirming project completion.	
6	Blacklisting Status: The bidder must not be blacklisted or debarred by any Government, Semi-Government, Autonomous Organization, or International Agency.	Notarized affidavit on stamp paper confirming the firm is not blacklisted.	

## EVALUATION CRITERIA

### Evaluation Criteria

The proposals shall be evaluated in accordance with the Single Stage – Two Envelope procedure under the Public Procurement Rules, 2004. Only proposals that meet the mandatory eligibility requirements shall proceed to technical evaluation.

#### 1. Technical Evaluation Criteria (Maximum 70 Points)

Criterion	Maximum Points	Evaluation Basis
Relevant Experience & Portfolio	10	Experience in development and implementation of enterprise software platforms, ERP systems, management systems, or integrated digital platforms.
Understanding of Scope & Technical Approach	20	Quality of the proposed solution, implementation methodology, system architecture and alignment with project objectives.
Proposed Team Structure & Key Personnel	10	Qualifications, experience, and availability of proposed team members including Project Manager, System Architect, Developers, and Technical Specialists.
Technology Architecture, Security & System Reliability	15	Proposed system architecture, cybersecurity measures, scalability, and reliability of the solution.
Implementation Plan & Support Capability	15	Realistic implementation timeline, deployment approach, maintenance support, and post-implementation services.

Total Technical Score: 70 Points

#### 2. Detailed Technical Evaluation Sub-Criteria

##### 2.1 Relevant Experience & Portfolio (10 Points)

Sub-Criteria	Points
Experience in enterprise software development or management information systems	3
Experience in ERP / enterprise platforms or integrated digital systems	4
Quality, scale and impact of project portfolio	3

##### 2.2 Understanding of Scope & Technical Approach (20 Points)

Sub-Criteria	Points
Understanding of project objectives, modules and system requirements	5
Quality and feasibility of implementation methodology and system design	7

Innovation, scalability and practicality of the proposed solution	8
---	---

### 2.3 Proposed Team Structure & Key Personnel (10 Points)

Sub-Criteria	Points
Project Manager experience and leadership capability	3
Technical expertise of system architects, developers and engineers	4
Team structure, resource allocation and availability	3

### 2.4 Technology Architecture, Security & System Reliability (15 Points)

Sub-Criteria	Points
System architecture design and scalability	3
Cybersecurity framework, encryption and data protection	9
System monitoring, reliability and disaster recovery	3

### 2.5 Implementation Plan & Support Capability (15 Points)

Sub-Criteria	Points
Implementation schedule and project management methodology	4
Deployment strategy and testing approach	7
Maintenance, technical support and training plan	4

## 3. Minimum Technical Qualification Score

Bidders must obtain at least seventy percent (70%) of the total technical score (49 out of 70 points) to qualify for financial evaluation.

## 4. Financial Evaluation (30 Points)

Financial proposals of only technically qualified bidders shall be opened and evaluated.

Financial Score = (Lowest Evaluated Bid / Bid Under Evaluation) × 30

Where:

Lowest Evaluated Bid = Lowest financial proposal among technically qualified bidders

Bid Under Evaluation = Financial proposal of the bidder being evaluated

30 = Maximum financial score

## 5. Final Combined Evaluation

Component	Weight
Technical Score	70
Financial Score	30
Total	100

The bidder achieving the highest combined score (Technical Score + Financial Score) shall be declared the Most Advantageous Bidder and recommended for award of contract.

## Bidding Forms

### Proposal Submission Sheet

Date: \_\_\_\_\_

Contract No.: \_\_\_\_\_

To: \_\_\_\_\_

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the RFB (BIDDING DOCUMENT) document, including Addenda No.: \_\_\_\_\_;
- (b) We offer to provide Procurement of Cloud Services in conformity with the RFB (BIDDING DOCUMENT) document and in accordance with the delivery schedule specified in the Schedule of Requirements, the following Services: \_\_\_\_\_  
\_\_\_\_\_;
- (c) Our Proposal shall be valid for a period of \_\_\_\_\_ days from the date fixed for the proposal submission deadline in accordance with the RFB (BIDDING DOCUMENT) document, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) If our Proposal is accepted, we commit to obtain a Performance Guarantee in the amount of \_\_\_\_\_ Percent of the Contract Price for the due performance of the Contract;
- (e) We are not participating, as Development of IT Software, Operations and Maintenance ” Providers, in more than one Proposal in this bidding process, other than alternative offers in accordance with the RFB (BIDDING DOCUMENT) document;
- (f) Our firm, its affiliates or subsidiaries, or Development of IT Software, Operations and Maintenance ” Providers for any part of the Contract, has not been declared ineligible by any Government, public sector, bilateral, multilateral agency in Pakistan

Name \_\_\_\_\_

In the capacity of \_\_\_\_\_

Signed \_\_\_\_\_

Duly authorized to sign the Proposal for and on behalf of \_\_\_\_\_

Date \_\_\_\_\_



## Form of Bid/Proposal Security

*[insert Bank's Name, and Address of Issuing Branch or Office]*

**Beneficiary:** *[insert Name and Address of Purchaser]*

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

**Bid GUARANTEE No.:** *[insert number]*

We have been informed that *[insert name of the service Provider]* (hereinafter called service Provider") has submitted to you its proposal dated *[insert date]* (hereinafter called "the Proposal") for the execution of *[Development of IT Software, Operations and Maintenance]*.

Furthermore, we understand that, according to your conditions, proposals must be supported by a Bid Guarantee.

At the request of the Provider, we *[insert name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[insert amount in figures]/[insert amount in words]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the service Provider is in breach of its obligation(s) under the proposal conditions, because the Development of IT Software, Operations and Maintenance " Provider:

- (a) has withdrawn its Proposal during the period of Bid validity specified by the Provider in the Form of Proposal; or
- (b) having been notified of the acceptance of its Proposal by the *Purchaser* during the period of proposal validity, (i) fails or refuses to execute the Contract Form, if required, or (ii) fails or refuses to furnish the Performance Guarantee, in accordance with the ITCSP.

This guarantee will expire: (a) if the Provider is the successful service Provider, upon our receipt of copies of the contract signed by Provider and the Performance Guarantee issued to you upon the instruction of the Provider; and (b) if the Provider is not the successful Provider, upon the earlier of

(i) our receipt of a copy your notification to the Provider of the name of the successful Provider; or (ii) twenty-eight days after the expiration of the Provider's proposal.

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

Name \_\_\_\_\_

In the capacity of \_\_\_\_\_

Signed \_\_\_\_\_

Duly authorized to sign the Bid Security for and on behalf of \_\_\_\_\_

Date \_\_\_\_\_

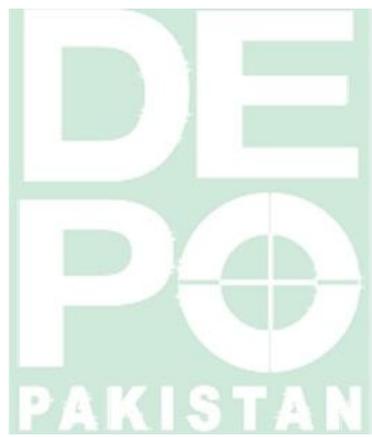
**JV Members Information Form (NOT APPLICABLE)**

*[The shall fill in this Form in accordance with the instructions indicated below.  
The following table shall be filled in for the*

*Procurement / Development Development of IT Software, Operations and Maintenance " Provider 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]*

1. Provider’s Name: <i>[insert Procurement / Development Development of IT Software, Operations and Maintenance " Provider’s legal name]</i>
2. Provider’s JV Member’s name: <i>[insert JV’s Member legal name]</i>
3. Provider’s JV Member’s country of registration: <i>[insert JV’s Member country of registration]</i>
4. Provider’s JV Member’s year of registration: <i>[insert JV’s Member year of registration]</i>
5. Provider’s JV Member’s legal address in country of registration: <i>[insert JV’s Member legal address in country of registration]</i>
6. Provider’s JV Member’s authorized representative information Name: <i>[insert name of JV’s Member authorized representative]</i> Address: <i>[insert address of JV’s Member authorized representative]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers of JV’s Member authorized representative]</i> Email Address: <i>[insert email address of JV’s Member authorized representative]</i>
7. Attached are copies of original documents of <i>[check the box(es) of the attached original documents]</i> <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITCSP 4.4. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and that they are not under the supervision of the Employer, in accordance with ITCSP 4.6.
8. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. <i>[If required under PDS ITCSP 45.1, the successful Procurement / Development Development of IT Software, Operations and Maintenance " Provider shall provide additional information on beneficial ownership for each JV member using the Beneficial Ownership Disclosure Form.]</i>



**(PRICE SCHEDULE)**

*[To be signed & stamped by the Bidder and reproduced on the letter head as well as on the copy of this form. To be attached with Financial Bid]*

**Name of Bidder** \_\_\_\_\_

Category A	Modules to be completed/delivered (The following modules are required to be integrated with existing modules as mentioned in SOW)	Time Duration	Per Software/Module Cost PKR
1	Exhibitor Floor Management	03-05 Months Development time for Software/Modules	
2	Registration Management		
3	Auto Email Module		
4	Stall Builder		
5	AI Chatbot		
6	Event Management		
7	Logistic Management		
8	Vehicle Access & Smart Parking		
9	Delegation Handling		
10	Media Management		
11	Security and Incident		
12	Badge Printing & Code Generation		
13	Pass Management System		
14	Attendance Tracking		
15	Content Management System		
16	API Integration		
17	Biometric Verification		
18	CCTV Surveillance & Monitoring		
19	Cyber Security		
20	Incident Management		

21	Communication Log Tracking		
22	Emergency Response Coordination		
23	Social Media Monitoring Tools		
24	B2B Meetings and MOU Management System		
25	Android Application		
26	IOS Application		
27	Harmony Application		
28	WhatsApp Module		
29	WeChat Module		
30	Post Expo Reporting		
31	Integrated Modules Dashboard (Tiered Dashboard)		
32	KPI Dashboard		
	<b>Sub- Total</b>		
<b>Category -B</b>	<b>Software Operations and Maintenance</b>	<b>(Till December 31, 2026)</b>	
	<b>Sub- Total</b>		
<b>Total Price exclusive of Taxes (PKR)</b>			
<b>Taxes (PKR)</b>			
<b>Total Price inclusive of Taxes (PKR)</b>			

**Note:** In case of discrepancy between unit price and total, the unit price shall prevail.

- a) **The bidder is responsible for the detailed price breakup as per mentioned scope of work/ requirement. In case, the total bid price and breakup cost is deemed unjustified, the bid shall be rejected.**
- b) Evaluation shall be carried out on the basis of most advantageous overall bid.
- c) Bid will be awarded to the most advantageous bidder on the basis of Most Advantageous Method of Procurement.
- d) Overwriting, cutting, use of fluid etc. in unit rates for the any items / software / services is not allowed which may lead to cancellation of bid offered.
- e) Incomplete or semi filled bid shall be treated as Non-Responsive.
- f) To ensure transparency and enable a thorough evaluation by the Procuring Agency, bidders are required to provide a detailed, head-wise breakdown.
- g) Contractor shall be responsible for violations of the Government rules and regulations.

**Note:**

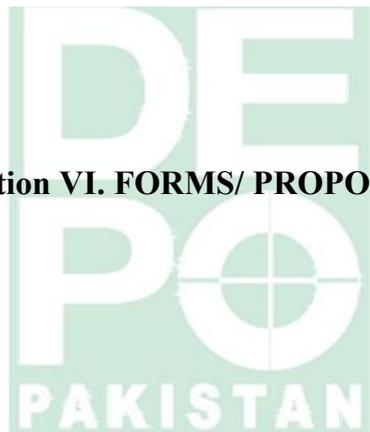
1. In case of difference between unit price and total price, unit price shall prevail and total price shall be “final”.

2. In case of difference between Total amount in “words” and amount in “figures”, amount in “words” shall be considered final.
3. The contract shall be signed on stamp paper as per stamp act.

**Stamp & Signature of Bidder** \_\_\_\_\_



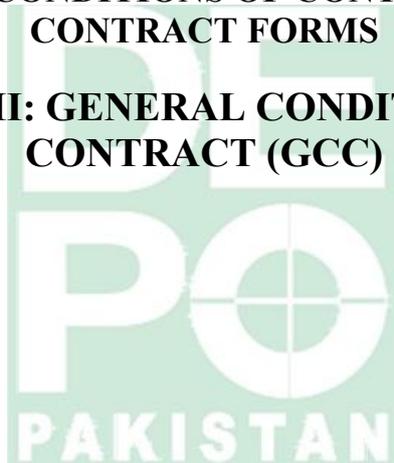
**Section VI. FORMS/ PROPOSAL**





**PART-B – CONDITIONS OF CONTRACT AND  
CONTRACT FORMS**

**Section VII: GENERAL CONDITIONS OF  
CONTRACT (GCC)**



**A. General**

<p><b>1. Definitions</b></p>	<p>1.1 Unless the context otherwise requires, the following terms whenever used in this Contract shall have the same meaning and shall be interpreted as indicated</p> <ul style="list-style-type: none"><li>(a) “Applicable Law” means the laws and any other instruments having the force of law in the Government’s Country, or in such other country as may be specified in the Special Conditions of the Contract (SC), as they may be issued and in force from time to time;</li><li>(b) “Procuring Agency” means:-<ul style="list-style-type: none"><li>i. any Ministry, Division, Department or any Office of the Federal Government;</li><li>ii. any authority, corporation, body or organization established by or under a Federal Law or which is owned or controlled by the Federal Government;</li></ul></li><li>(c) “The Contract” means an agreement enforceable by law;</li><li>(d) “The Contract Price” means the price payable to the Provider under the Contract for the full and proper performance of its contractual obligations;</li><li>(e) “The Services” means the work to be performed by the service Provider pursuant to this Contract and as prescribed in the Specifications and Schedule of Activities included in the Provider’s Proposal.;</li><li>(f) “Ancillary Services” means those services ancillary to the provision of Services, such as transportation and insurance, and any other incidental services, such as installation, commissioning, provision of technical assistance, training, and other such obligations of the service Provider covered under the Contract;</li><li>(g) “GCC” means the General Conditions of Contract contained in this section;</li><li>(h) “SCC” means the Special Conditions of Contract by which the GCC may be amended or supplemented;</li><li>(i) “Day” means calendar day unless indicated otherwise.</li><li>(j) “Effective Date” means the date on which this Contract comes into force and effect.</li></ul>
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	<p>(k) "The service Provider" means the individual or corporate body whose Proposal to provide the Services has been accepted by the Procuring Agency;</p> <p>(l) "The Project Site," where applicable, means the place or places named in Proposal Data Sheet and technical Specifications;</p> <p>(m) "Government" means the Government of Pakistan;</p> <p>(n) "Local Currency" means the currency of Pakistan;</p> <p>(o) "In Writing" means communicated in written form with proof of receipt;</p> <p>(p) "Completion Date" means the date of completion of the Services by the Provider as certified by the Procuring Agency;</p> <p>(q) "Foreign Currency" means any currency other than the currency of the country of the Procuring Agency;</p> <p>(r) "Party" means the Procuring Agency or the service Provider, as the case may be, and "Parties" means both of them;</p> <p>(s) "Service" means any object of procurement other than goods or works;</p> <p>(t) "Subcontractor" means any entity to which the service Provider subcontracts any part of the Services in accordance with the provisions of Sub-Clauses 3.5 and 4.</p>
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<b>2. Applicable Law</b>	2.1 The contract shall be governed and interpreted in accordance with the laws of Pakistan, unless otherwise specified in SCC.
<b>3. Language</b>	3.1 The Contract as well as all correspondence and documents relating to the Contract exchanged between the service Provider and the Procuring Agency, shall be written in the English language unless otherwise stated in the SCC. Supporting documents and printed literature that are part of the Contract may be in another language provided these are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Contract, this translation shall govern.
<b>4. Notices</b>	4.1 Any notice, request, or consent made pursuant to this Contract shall be in writing and shall be deemed to have been made when delivered in person to an authorized representative of the Party to whom the communication is addressed, or when sent by registered mail, telex, telegram, or facsimile to such Party at the address specified in the SCC.
<b>5. Location</b>	5.1 The Services shall be performed at such locations as the Procuring Agency may approve.
<b>6. Authorized Representatives / Authority of Member in charge</b>	6.1 Any action required or permitted to be taken, and any document required or permitted to be executed, under this Contract by the Procuring Agency or the service Provider may be taken or executed by the officials specified in the SCC.  6.2 In case the service Provider is a Joint Venture, the members hereby authorize the member specified in the SCC to act on their behalf in exercising all the service Provider's rights and obligations towards the Procuring Agency under this Contract, including without limitation the receiving of instructions and payments from the Procuring Agency.

## **B. Commencement, Completion, Modification, and Termination of Contract**

<b>7. Effectiveness of Contract</b>	7.1 This Contract shall come into effect on the date the Contract is signed by both parties or such other later date as may be stated in the SCC.
<b>8. Commencement of Services</b>	8.1 The service Provider shall confirm availability of Key Experts and begin carrying out the Services not later than the number of days after the Effective Date specified in the SCC.
<b>9. Program</b>	9.1 Before commencement of the Services, the Provider shall submit to the Procuring Agency for approval a Program showing the general methods, arrangements, order and timing for all activities. The Services shall be carried out in accordance with the approved Program as updated.

<b>10. Starting Date/Expiration Date</b>	<p>10.1 The service Provider shall start carrying out the Services thirty (30) days after the date the Contract becomes effective, or at such other date as may be specified in the SCC.</p> <p>10.2 Unless terminated earlier pursuant to Clause GCC 15 hereof, this Contract shall expire at the end of such time period after the Effective Date as specified in the SCC.</p>
<b>11. Entire Agreement</b>	<p>11.1 This Contract contains all covenants, stipulations and provisions agreed by the Parties. No agent or representative of either Party has authority to make, and the Parties shall not be bound by or be liable for, any statement, representation, promise or agreement not set forth herein.</p>
<b>12. Modification</b>	<p>12.1 Any modification or variation of the terms and conditions of this Contract, including any modification or variation of the scope of the Services, may only be made by written agreement between the Parties. However, each Party shall give due consideration to any proposals for modification or variation made by the other Party.</p> <p>12.2 In cases of any modifications or variations, the prior written consent of the Procuring Agency is required.</p>
<b>13. Force Majeure</b>	<p>14.1 Definition</p> <p>For the purposes of this Contract, “Force Majeure” means an event which is beyond the reasonable control of a Party and which makes a Party’s performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances.</p> <p>14.2 No Breach of Contract</p> <p>The failure of a Party to fulfill any of its obligations under the contract shall not be considered to be a breach of, or default under, this Contract in so far as such inability arises from an event of Force Majeure, provided that the Party affected by such an event (a) has taken all reasonable precautions, due care and reasonable alternative measures in order to carry out the terms and conditions of this Contract, and (b) has informed the other Party as soon as possible about the occurrence of such an event.</p> <p>14.3 Extension of Time</p> <p>Any period within which a Party shall, pursuant to this Contract, complete any action or task, shall be extended for a period equal to the time during which such Party was unable to perform such action as a result of Force Majeure.</p> <p>14.4 Payments</p>

	<p>During the period of their inability to perform the Services as a result of an event of Force Majeure, the service Provider shall be entitled to continue to be paid under the terms of this Contract, as well as to be reimbursed for additional costs reasonably and necessarily incurred by them during such period for the purposes of the Services and in reactivating the Service after the end of such period.</p>
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<p><b>14. Termination</b></p>	<p><b>15.1 By the Procuring Agency</b></p> <p>The Procuring Agency may terminate this Contract in case of the occurrence of any of the events specified in paragraphs (a) through (e) of this Clause. In such an occurrence the Procuring Agency shall give at least thirty (30) calendar days' written notice of termination to the Provider in case of the events referred to in (a) through (d); at least sixty (60) calendar days' written notice in case of the event referred to in (e);</p> <ul style="list-style-type: none"> <li>(a) If the Provider fails to remedy a failure in the performance of its obligations hereunder, as specified in a notice of suspension;</li> <li>(b) If the service Provider becomes (or, if the)" Provider consists of more than one entity, if any of its members becomes) insolvent or bankrupt or enter into any agreements with their creditors for relief of debt or take advantage of any law for the benefit of debtors or go into liquidation or receivership whether compulsory or voluntary;</li> <li>(c) If the service Provider fails to comply with any final decision reached as a result of arbitration proceedings;</li> <li>(d) If, as the result of Force Majeure, the service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days;</li> <li>(e) If the Procuring Agency, in its sole discretion and for any reason whatsoever, decides to terminate this Contract.</li> </ul> <p><b>15.2 By the service Provider</b></p> <p>The service Provider may terminate this Contract, by not less than thirty (30) calendar days' written notice to the Procuring Agency, in case of the occurrence of any of the events specified in paragraphs (a) through (d) of this Clause.</p> <ul style="list-style-type: none"> <li>(a) If the Procuring Agency fails to pay any money due to the service Provider pursuant to this Contract and not subject to dispute within forty-five (45) calendar days after receiving written notice from the service)" Provider that such payment is overdue.</li> <li>(b) If, as the result of Force Majeure, the service Provider is unable to perform a material portion of the Services for a period of not less than sixty (60) calendar days.</li> <li>(c) If the Procuring Agency fails to comply with any final decision reached as a result of arbitration.</li> </ul>
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	(d) If the Procuring Agency is in material breach of its obligations pursuant to this Contract and has not remedied the same within forty-five (45) days (or such longer period as the service Provider may have subsequently approved in writing) following the receipt by the Procuring Agency of the service Provider’s notice specifying such breach.
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**C. Obligations of the service” Provider**

<b>15. General</b>	<p><b>16.1 Standard of Performance</b></p> <ul style="list-style-type: none"> <li>i. The Provider shall perform the Services and carry out the Services with all due diligence, efficiency and economy, in accordance with generally accepted professional standards and practices, and shall observe sound management practices, and employ appropriate technology and safe and effective equipment, machinery, materials and methods. The Provider shall always act, in respect of any matter relating to this Contract or to the Services, as a faithful adviser to the Procuring Agency, and shall at all times support and safeguard the Procuring Agency’s legitimate interests in any dealings with the third parties.</li> <li>ii. The Provider shall employ and provide such qualified and experienced Experts and Sub-contractor Providers as are required to carry out the Services.</li> <li>iii. The service Provider may subcontract part of the Services to an extent and with such Key Experts and Sub-Providers as may be approved in advance by the Procuring Agency.</li> </ul> <p><b>16.2 Law Applicable to Services</b></p> <p>The service Provider shall perform the Services in accordance with the Contract and in accordance with the Law of Pakistan and shall take all practicable steps to ensure that any of its Experts and Sub-contractor Providers, comply with the Applicable Law.</p>
<b>16. Conflict of Interests</b>	<p><b>17.1 Provider Not to Benefit from Commissions and Discounts.</b></p> <p>The remuneration of the Provider shall constitute the sole remuneration in connection with this Contract or the Services, and the service Provider shall not accept for their own benefit any trade commission, discount, or similar payment in connection with activities pursuant to this Contract or to the Services or in the discharge of their obligations under the Contract, and the Provider shall use their best efforts to ensure that the Personnel, any Subcontractors, and agents of either of them similarly shall not receive any such additional remuneration.</p> <p><b>17.2 service Provider and Affiliates Not to be Otherwise</b></p>

	<p><b>Interested in Project</b></p> <p>the service Provider agree that, during the term of this Contract and after its termination, the service Provider and its affiliates, as well as any Subcontractor and any of its affiliates, shall be disqualified from providing Services (other than the Services and any continuation thereof) for any project resulting from or closely related to the Services.</p> <p><b>17.3 Prohibition of Conflicting Activities</b></p> <p>Neither the service Provider nor its Subcontractors nor the Personnel shall engage, either directly or indirectly, in any of the following activities:</p> <ul style="list-style-type: none"> <li>(a) during the term of this Contract, any business or professional activities in the Government’s country which would conflict with the activities assigned to them under this Contract;</li> <li>(b) during the term of this Contract, neither the service Provider nor their Subcontractors shall hire public employees in active duty or on any type of leave, to perform any activity under this Contract;</li> <li>(c) after the termination of this Contract, such other activities as may be specified in the SCC.</li> </ul>
<p><b>17. Confidentiality</b></p>	<p>18.1 Except with the prior written consent of the Procuring Agency, the service Provider and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor shall the service Provider and the Experts make public the recommendations formulated in the course of, or as a result of, the Services.</p>
<p><b>18. Insurance to be Taken Out by the Provider</b></p>	<p>19.1 The service Provider (a) shall take out and maintain, and shall cause any Subcontractors to take out and maintain, at its (or the Subcontractors’, as the case may be) own cost but on terms and conditions approved by the Procuring Agency, insurance against the risks, and for the coverage, as shall be specified in the SCC; and (b) at the Procuring Agency’s request, shall provide evidence to the Procuring Agency showing that such insurance has been taken out and maintained and that the current premiums have been paid.</p>
<p><b>19. Reporting Obligations</b></p>	<p>21.1 The service Provider shall submit to the Procuring Agency the reports and documents in the numbers, and within the periods as prescribed by the Procuring Agency.</p>
<p><b>20. Documents Prepared by the Provider to Be the Property of the</b></p>	<p>22.1 All plans, drawings, specifications, designs, reports, and other documents and Provider shall become and remain the property of the Procuring Agency, and the” Provider shall, not later than upon termination or expiration of this Contract, deliver all such documents</p>

<b>Procuring Agency</b>	and software to the Procuring Agency, together with a detailed inventory thereof. The service Provider may retain a copy of such documents and software. Restrictions about the future use of these documents, if any, shall be specified in the SCC.
<b>21. Liquidated Damages</b>	<p>23.1 Payments of Liquidated Damages</p> <p>The service Provider shall pay liquidated damages to the Procuring Agency at the rate per day stated in the SCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the SCC. The Procuring Agency may deduct liquidated damages from payments due to the service Provider. Payment of liquidated damages shall not affect the Provider's liabilities.</p> <p>23.2 Correction for Over-payment</p> <p>If the Intended Completion Date is extended after liquidated damages have been paid, the Procuring Agency shall correct any overpayment of liquidated damages by the Provider by adjusting the next payment certificate. The service Provider shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in SCC.</p> <p>23.3 Lack of performance penalty</p> <p>If the service Provider has not corrected a Defect within the time specified in the Procuring Agency's notice, a penalty for Lack of performance will be paid by the service Provider. The amount to be paid will be calculated as a percentage of the cost of having the Defect corrected, assessed as specified in the SCC.</p>
<b>22. Performance Guarantee</b>	<p>24.1 Within Seven (07) days from the issuance of acceptance letter from the Purchaser, the successful Provider shall furnish the Performance Guarantee in shape of CDR at the discretion of the Purchaser in the amount <b>specified in SCC</b>. In case the amount of proposal security is equal or greater than the value of the Services to be supplied then the service Provider shall not require furnishing the Performance Guarantee separately, it will be retained or deducted from the service Provider's claim on Provider's choice.</p> <p>24.2 The proceeds of the Performance Guarantee shall be payable to the Purchaser as compensation for any loss resulting from the Provider's failure to complete its obligations under the Contract.</p> <p>The Performance Guarantee shall be denominated in the currency of the Contract, or in a freely convertible currency</p>

	<p>acceptable to the Purchaser and shall be in the acceptable form as specified in SCC.</p> <p>24.3 The Performance Guarantee will be discharged by the Purchaser and returned to the Provider not later than thirty (30) days following the date of completion of the Provider's performance obligations under the Contract, including any warranty obligations, unless otherwise <b>specified in SCC</b>.</p>
<b>23. Fraud and Corruption</b>	<p>25.1 The Procuring Agency requires the service Provider 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.</p>
<b>24. Sustainable Procurement</b>	<p>26.1 The Provider shall conform to the sustainable procurement contractual provisions, if and as specified in the SCC.</p>

**D. Procurement / Development Development of IT Software, Operations and Maintenance ” Provider’s Personnel**

<b>25. Description of Personnel</b>	<p>27.1 The titles, agreed job descriptions, minimum qualifications, and estimated periods of engagement in the carrying out of the Services of the Provider's Key Personnel. The Key Personnel and Subcontractors listed by title as well as by name are hereby approved by the Procuring Agency.</p>
<b>26. Removal and/or Replacement of Personnel</b>	<p>28.1 Except as the Procuring Agency may otherwise agree, no changes shall be made in the Key Personnel. If, for any reason beyond the reasonable control of the Provider, it becomes necessary to replace any of the Key Personnel, the service Provider shall provide as a replacement a person of equivalent or better qualifications.</p> <p>28.2 If the Procuring Agency finds that any of the Personnel have (i) committed serious misconduct or have been charged with having committed a criminal action, or (ii) have reasonable cause to be dissatisfied with the performance of any of the Personnel, then the Provider shall, at the Procuring Agency's written request specifying the grounds thereof, provide as a replacement a person with qualifications and experience acceptable to the Procuring Agency.</p> <p>28.3 The service Provider shall have no claim for additional costs arising out of or incidental to any removal and/or replacement of Personnel.</p>

**E. Obligations of the Procuring Agency**

<b>27. Assistance and Exemptions</b>	29.1 The Procuring Agency shall use its best efforts to ensure that the Government shall provide the Provider such assistance and exemptions as specified in the SCC.
<b>28. Change in the Applicable Law</b>	30.1 If, after the date of this Contract, there is any change in the Applicable Law with respect to taxes and duties which increases or decreases the cost of the Services rendered by the Provider, then the remuneration and reimbursable expenses otherwise payable to the Provider under this Contract shall be increased or decreased accordingly by agreement between the Parties, and corresponding adjustments shall be made to the amounts referred in the SCC.
<b>29. Services and Facilities</b>	<p>31.1 The Procuring Agency shall make available to the Provider and the Experts, for the purposes of the Services and free of any charge, the services, facilities and property described in the Terms of Reference, at the times and in the manner specified in the Terms of Reference.</p> <p>31.2 In case that such services, facilities and property shall not be made available to the Provider, the Parties shall agree on (i) any time extension that it may be appropriate to grant to the Provider for the performance of the Services, (ii) the manner in which the Provider shall procure any such services, facilities and property from other sources, and (iii) the additional payments, if any, to be made to the Provider as a result thereof.</p>

#### F. Payments to the service Provider

<b>30. Lump-Sum Remuneration</b>	32.1 The Provider's remuneration shall not exceed the Contract Price and shall be a fixed lump-sum including all Subcontractors' costs, and all other costs incurred by the Provider in carrying out the Services. Except as provided in GCC 33, the Contract Price may only be increased above the amounts if the Parties have agreed to additional payments in accordance with GCC 34.
<b>31. Contract Price</b>	<p>33.1 The price payable in local currency is set forth in the SCC.</p> <p>33.2 The price payable in foreign currency is set forth in the SCC.</p>
<b>32. Payment for Additional Services, and Performance Incentive Compensation</b>	<p>34.1 For the purpose of determining the remuneration due for additional Services as may be mutually agreed.</p> <p>34.2 If the SCC so specify, the Provider shall be paid performance incentive compensation if specified in the SCC.</p>
<b>33. Terms and</b>	35.1 Payments will be made to the service Provider according to the payment schedule stated in the SCC.

<b>Conditions of Payment</b>	35.2 Unless otherwise stated in the SCC, the advance payment shall be made against the provision by the Provider of a bank guarantee for the same amount, and shall be valid for the period stated in the SCC. Any other payment shall be made after the conditions listed in the SCC for such payment have been met, and the Provider have submitted an invoice to the Procuring Agency specifying the amount due.
<b>34. Interest on Delayed Payments</b>	36.1 If the Procuring Agency has delayed payments beyond fifteen (15) days after the due date stated in the SCC, interest shall be paid to the Provider for each day of delay at the rate stated in the SCC.
<b>35. Price Adjustment (not applicable)</b>	<p>37.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the SCC. If so provided, the amounts certified in each payment certificate, after deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency.</p> <p>37.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.</p>
<b>36. Currency of Payment</b>	38.1 Any payment under this Contract shall be made in the currency (ies) specified in the SCC.

## G. Quality Control

<b>37. Identifying Defects</b>	39.1 The principle and modalities of Inspection of the Services by the Procuring Agency shall be as indicated in the SCC. The Procuring Agency shall check the Provider's performance and notify him of any Defects that are found. Such checking shall not affect the Provider's responsibilities. The Procuring Agency may instruct the Provider to search for a Defect and to uncover and test any service that the Procuring Agency considers may have a Defect. Defect Liability Period is as defined in the SCC. Guidance related to the defects may be taken from the list published by the Cloud Office
<b>38. Correction of Defects, and Lack of Performance Penalty</b>	<p>40.1 The Procuring Agency shall give notice to the Provider of any Defects before the end of the Contract. The Defects liability period shall be extended for as long as Defects remain to be corrected.</p> <p>40.2 Every time notice a Defect is given, the Provider shall correct the notified Defect within the length of time specified by the Procuring Agency's notice.</p> <p>40.3 If the Provider has not corrected a Defect within the time</p>

	specified in the Procuring Agency’s notice, the Procuring Agency will assess the cost of having the Defect corrected, the Provider will pay this amount, and a Penalty for Lack of Performance.
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**H. Settlement of Disputes**

<b>39. Amicable Settlement</b>	41.1 The Parties shall use their best efforts to settle amicably all disputes arising out of or in connection with this Contract or its interpretation.
<b>40. Dispute Settlement</b>	<p>42.1 If any dispute arises between the Procuring Agency and the Provider in connection with, or arising out of, the Contract or the provision of the Services, whether during carrying out the Services or after their completion, the matter shall be referred to the Adjudicator within 14 days of the notification of disagreement of one party to the other.</p> <p>42.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.</p> <p>42.3 The Adjudicator shall be paid by the hour at the rate specified in the PDS and SCC, together with reimbursable expenses of the types specified in the SCC, and the cost shall be divided equally between the Procuring Agency and the ” Provider, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator’s written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator’s decision will be final and binding.</p> <p>42.4 The arbitration shall be conducted in accordance with the arbitration procedure published by the institution named and in the place shown in the SCC.</p> <p>42.5 Should the Adjudicator resign or die, or should the Procuring Agency and the Provider agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator will be jointly appointed by the Procuring Agency and the Provider. In case of disagreement between the Procuring Agency and the service Provider, within 30 days, the Adjudicator shall be designated by the Appointing Authority designated in the SCC at the request of either party, within 14 days of receipt of such request.</p>



**Section VIII. SPECIAL CONDITIONS OF  
CONTRACT (SCC)**



## SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract shall supplement the General Conditions of Contract. Whenever there is a conflict, the provisions herein shall prevail over those in the General Conditions of Contract. The corresponding clause number of the GCC is indicated in parentheses.

Number of GC Clause	Amendments of, and Supplements to, Clauses in the General Conditions of Contract
GCC 2	<p><b>Applicable/Governing Law:</b></p> <p><u>Contract Act 1872 of Pakistan will be followed with Prevailing PPRA Rules 2004 with it amendment till date of Federal PPRA</u></p>
GCC 3	<p>The language of the Contract, all correspondence and communications to be given, and all other documentation to be prepared and supplied under the Contract shall be in <u>/English/</u>.</p>
GCC 5	<p><b>The addresses are:</b></p> <hr/> <p style="text-align: center;"><b>GSO-II IDEAS</b>  <b>Address: DEPO, DEFENCE COMPLEX SECTOR E 10,</b>  <b>ISLAMABAD</b>  <b>Contact +92-51-9262017-8 email: <a href="mailto:info@ideaspakistan.gov.pk">info@ideaspakistan.gov.pk</a>,</b>  <b>website: <a href="http://ideaspakistan.gov.pk">ideaspakistan.gov.pk</a></b></p> <p>The Contractor/ Procurement / Development of IT Software, Operations and Maintenance”</p> <p>Provider:          [Name, address and telephone number].          The Contractor/ Procurement / Development of IT Software, Operations and Maintenance” Provider ’s Representative(s)</p>
GCC 6.1	<p><b>The Authorized Representatives are:</b></p> <p><b>For the Procuring Agency:</b></p>

	<p style="text-align: center;"><b>GSO-II IDEAS</b>  <b>Address: DEPO, DEFENCE COMPLEX SECTOR E 10,</b>  <b>ISLAMABAD</b>  <b>Contact +92-51-9262017-8 email: <a href="mailto:info@ideaspakistan.gov.pk">info@ideaspakistan.gov.pk</a>,</b>  <b>website: ideaspakistan.gov.pk</b>  <b>For the Procurement / Development Development of IT Software,</b>  <b>Operations and Maintenance ” Provider:</b></p> <p><b>Name: .....</b>  <b>Designation: .....</b>  <b>Address: .....</b></p>
GCC 6.2	<p>[The Authorize Representative from Successful Bidder</p> <hr/>
GCC 7	<p><b>Effectiveness of the contract</b></p> <p>The Contractor/Procurement / Development of IT Software, Operations and Maintenance ” Provider shall commence work on the System within 7 days from the date of signature of the Contract by both parties</p>
GCC 8	<p><b>Commencement of Services:</b></p> <p>The Contractor/ Procurement / Development of IT Software, Operations and Maintenance ” Provider shall commence [07 Days from the signing of contract]</p>
GCC 10.2	<p><b>Expiration of Contract:</b></p> <p>The time period shall be [3 Years from the signing of contract with extended able terms with mutual consent of both parties and remuneration will be adjusted accordingly]</p>
GCC 14	<p><b>Termination</b></p> <p>In the event of termination of the contract due to any reason as already defined in the General Conditions of Contract, service Provider shall be responsible for providing to the procuring agency all the data store on cloud services along with all the requirement (with allied</p>

Commented [SQ1]: Please update:

	<p>documentation) which may be necessary for smooth transition to or performance either by the Authority itself or by any other organization/body to whom the contract may be assigned.</p> <p>Termination by Convenience the procuring agency may terminate this agreement for convenience, in whole or in part, for any reason or no reason, by procuring agency, by providing 30 days written notice to the contractor. Upon termination, the contractor shall cease work, and be entitled to payment for all services rendered and costs incurred up to the termination date as per milestones achieved( As per Scope of Work and TORs). The Contractor shall not recommence the terminated portion of the work without the contractor's consent.</p>
<b>GCC 17</b>	The Procuring Agency reserves the right to determine on a case-by-case basis whether the Procurement / Development of IT Software, Operations and” Provider should be disqualified from providing services due to a conflict of a nature described in Clause GCC 17.
<b>GCC 18</b>	<p>The insurance coverage against the risks shall be as follows</p> <p>(a) Third Party liability insurance, with a minimum coverage of [05 Million and currency or state PKR “in accordance with the applicable law in the Procuring Agency’s country”];</p> <p>(b) insurance against loss of or damage to the Procuring agency , property used by the service provider in the performance of the Services.</p>
<b>GCC 21</b>	<p><b>Liquidated Damages</b></p> <p>If the Contractor fails to provide services as required under the contract or in case of any data loss/data breach or any incident compromising the data security or other such failures related to any services.</p> <p>In case of delay, negligence, or non-performance, DEPO reserves the right to impose liquidated damages at a rate of up to 0.5% of the contract value per day of delay, subject to a maximum of 10% of the contract value. DEPO Pakistan may also recover actual losses incurred due to the contractor’s failure to perform.</p>
<b>GG 22</b>	<p><b>Performance Guarantee :</b></p> <p>a) The amount of Performance Guarantee, as a percentage of the Contract Price, shall be: Successful bidder is bound to provide the 10% of Contract Price within 07 days in shape of</p>

	<p>unconditional irrevocable Bank Guarantee by Schedule Bank which should be valid for the period 2 months beyond the contract period / deliverables (whichever is later).</p> <p>b) The performance guarantee will be discharged by the Procuring Agency and returned to the Service Provider not later than Three Months (3 Months) following the date of completion of the Service Provider’s performance obligations under the Contract, including any warranty obligations</p>
GCC 30	<p><b>Proposal quoted shall be inclusive of all applicable taxes.</b></p> <p>Prices shall be fixed for contract period inclusive of all Applicable Taxes. It shall include all applicable taxes, duties, charges and expenses associated with performance of the contract. However, in case of change in minimum wage rate and taxes through official notification; the contract price based on minimum wage rates and taxes shall be adjusted accordingly. Bidder shall separately mention the total amount of taxes which are part of the total price.</p>
GCC 31&32	<p><b>GCC 31&amp;32 – Method and Conditions of Payment</b></p> <p>The method and conditions of payment to be made to the Service Provider under this Contract shall be as follows:</p> <ol style="list-style-type: none"> <li>1. <b>General Payment Terms</b> Payments shall be made by the Client within thirty (30) days of receipt of a duly verified and approved invoice submitted by the Service Provider, subject to the successful completion of the deliverables as specified in the Scope of Services defined in Section-V and fulfillment of the documentation requirements stipulated herein.</li> <li>2. <b>Bank Account for Payment</b> All payments under this Contract shall be made through bank transfer. The Service Provider shall maintain an active bank account in its name and shall provide complete bank account details to the Client for the purpose of payment processing.</li> <li>3. <b>Milestone-Based Development Payments</b> The development of software modules listed in Section-V may be delivered in phases. Partial delivery shall be permitted; however, payment shall only be released upon <b>complete development, deployment, and operationalization of each individual software module</b>, including successful completion of its defined <b>testing and runtime/stabilization period</b>, as</li> </ol>

verified by the concerned End User Department.

Upon satisfactory completion and verification of each software module, the Service Provider shall be entitled to submit an invoice for the corresponding development milestone.

**4. Completion and Acceptance**

Each software module shall be deemed complete only after:

- a) Successful development and deployment;
- b) Completion of the agreed **runtime/stabilization period**; and
- c) Issuance of a **satisfactory completion/acceptance report** by the End User Department.

**5. Operations and Maintenance (O&M) Payment**

Payments for **Operations and Maintenance (O&M)** services shall be **separate from development milestone payments**. O&M payments shall commence only after the **successful completion and acceptance of all software modules under the Contract**. Thereafter, O&M payments shall be made **on a monthly basis**, subject to submission of invoice and verification/certification of satisfactory services by the concerned User Department.

**6. Assignment of Receivables**

The Service Provider shall not assign, transfer, or otherwise dispose of its progress payments or receivables arising from this Contract to any third party without the prior written approval of the Client.

**7. Invoice Verification Process and Timeline**

All invoices and supporting documents submitted by the Service Provider shall be verified by the Client within **ten (10) working days**. Any clarifications or deficiencies identified during the verification process shall be communicated to the Service Provider and must be resolved within **five (5) working days**.

**8. Performance Evaluation**

The Client (through the designated department/DEPO) shall evaluate the performance of the Service Provider at defined milestones and upon completion of deliverables. Performance shall be rated as **“Satisfactory”** or **“Unsatisfactory.”** Two (2) consecutive **“Unsatisfactory”** ratings may constitute grounds for termination of the Contract and may result in the Service Provider’s exclusion from participation in future procurements, subject to applicable rules and regulations.

<b>GCC 36</b>	All the payment to be released to the Provider shall be [ <i>PAK Rupees</i> ].
<b>GCC 40</b>	<p>[The Procuring Agency will give the dispute resolution mechanism.</p> <p>All disputes arising in connection with the present Contract shall be finally settled under the Rules of Conciliation and Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with said Rules.</p> <p>(b) For Contracts to be entered with nationals of Pakistan: Following is the guidance for Dispute Resolution</p> <ol style="list-style-type: none"> <li>i. If any dispute of any kind whatsoever shall arise between the procuring agency and the Procurement / Development of IT Software, Operations and Maintenance ” Provider in connection with or arising out of the Contract, including without prejudice to the generality of foregoing, any question regarding its existence, validity, termination and the execution of the Project – whether during developing phase or after their completion and whether before or after the termination, abandonment or breach of the Contract – the parties shall seek to resolve any such dispute or difference by mutual diligent negotiations in good faith within 14 (fourteen) days following a notice sent by one Party to the other Party in this regard.</li> <li>ii. At future of negotiation the dispute shall be resolved through mediation and mediator shall be appointed with the mutual consent of the both parties.</li> <li>iii. At the event of failure of mediation to resolve the dispute relating to this contract such dispute shall finally be resolved through binding Arbitration by sole arbitrator in accordance with Arbitration Act 1940. The arbitrator shall be appointed by mutual consent of the both parties. The Arbitration shall take place [<i>insert place</i>] and proceedings will be conducted in [<i>Insert language</i>].</li> <li>iv. The cost of the mediation and arbitration shall be shared by the parties in equal proportion however the both parties shall bear their own costs and lawyer’s fees regarding their own participation in the mediation and arbitration. However, the Arbitrator may make an award of costs upon the conclusion of the arbitration making any party to the dispute liable to pay the costs of another party to the dispute.</li> <li>v. Arbitration proceedings as mentioned in the above clause regarding resolution of disputes may be commenced prior to,</li> </ol>

during or after completion of the contract.

Notwithstanding any reference to the arbitration herein, the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree that the procuring agency shall pay the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider any monies due to the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider.

Arbitrator’s fee:

The fee shall be specified in [**PKR**], as determined by the procuring agency, which shall be shared equally by both parties.

Appointing Authority for Arbitrator:

By the Mutual Consent or in accordance with the provisions of Arbitration Act, 1940, in case the parties fail to reach a consensus on the name of sole arbitrator, any party may submit an application to the Court for appointment of sole arbitrator. The court may appoint a former judge of any High Court or Supreme Court as the sole arbitrator to resolve the dispute between the parties.

Rules of procedure for arbitration proceedings:

Any dispute between the procuring and a Provider arising in connection with the present Contract shall be referred to adjudication or arbitration in accordance with the laws of the Islamic Republic of Pakistan including Arbitration Act 1940, however above provision shall prevail in referring the case to the Arbitrator.

Place of Arbitration and Award:

The arbitration shall be conducted in [**English**] and place of arbitration shall be at [Insert place]. The award of the arbitrator shall be final and shall be binding on the parties.

## **SECTION IX: CONTRACT FORMS**



## Form of Contract

THIS AGREEMENT made the \_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ between Procuring Agency of Pakistan (hereinafter called “the Procuring Agency”) of the one part and [name of Procurement / Development Development of IT Software, Operations and Maintenance ” Provider] of [city and country of Procurement / Development Development of IT Software, Operations and Maintenance ” Provider] (hereinafter called “the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider”) of the other part:

WHEREAS the Procuring Agency invited Proposals for provision of Procurement of Cloud Services, viz., [brief description of services] and has accepted a Proposal by the Procurement / Development Development of IT Software, Operations and Maintenance ( The Services duration is 36 Months ) Deliverable based” Provider for the provision of Cloud Hosting Services in the sum of [contract price in words and figures] (hereinafter called “the Contract Price”).

### NOW THIS CONTRACT WITNESSETH AS FOLLOWS:

1. In this Contract words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Contract, In the event of any ambiguity or conflict between the Contract Documents listed below, the order of precedence shall be the order in which the Contract Documents are listed below:-
  - (a) This form of Contract;
  - (b) the Form of Proposal and the Price Schedule submitted by the Procurement / Development of IT Software, Operations and Maintenance ” Provider;
  - (c) the Schedule of Requirements;
  - (d) the Technical Specifications;
  - (e) the Special Conditions of Contract;
  - (f) the General Conditions of the Contract;
  - (g) the Procuring Agency’s Letter of Acceptance; and
  - (h) [add here: any other documents]
3. In consideration of the payments to be made by the Procuring Agency to the Procurement / Development of IT Software, Operations and Maintenance ” Provider as hereinafter mentioned, the Procurement / Development of IT Software, Operations and Maintenance ” Provider hereby covenants with the Procuring Agency to provide the Services mentioned in the SOW and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Procuring Agency hereby covenants to pay the Procurement / Development of IT Software, Operations and Maintenance ” Provider in consideration of the provision of services mentioned in the SOW and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the contract at the times and in the manner prescribed by the contract.

IN WITNESS whereof the parties hereto have caused this Contract to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Procuring Agency)

Witness to the signatures of the Procuring Agency:  
.....

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Procuring Agency)

Witness to the signatures of the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider: .....



### Performance Guarantee Form

To: *[name of Procuring Agency]*

WHEREAS *[name of Procurement / Development Development of IT Software, Operations and Maintenance ” Provider]* (hereinafter called “the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider”) has undertaken, in pursuance of Contract No. *[reference number of the contract]* dated *[insert date]* for provision of Cloud Hosting Services (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider shall furnish you with a Bank Guarantee by a reputable bank for the sum specified therein as security for compliance with the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider a guarantee:

THEREFORE, WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider, up to a total of *[amount of the guarantee in words and figures]*, and we undertake to pay you, upon your first written demand declaring the Procurement / Development Development of IT Software, Operations and Maintenance ” Provider to be in default under the Contract and without cavil or argument, any sum or sums within the limits of *[amount of guarantee]* as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the: *[insert date]*

Signature and seal of the Guarantors

\_\_\_\_\_  
*[name of bank or financial institution]*

\_\_\_\_\_  
*[address]*

\_\_\_\_\_  
*[date]*

### Integrity Pact

**DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC. PAYABLE BY THE PROCUREMENT / DEVELOPMENT DEVELOPMENT OF IT SOFTWARE, OPERATIONS AND MAINTENANCE ” PROVIDERS IN CONTRACTS WORTH RS.10.00 MILLION OR MORE**

Contract Number: \_\_\_\_\_ Dated: \_\_\_\_\_  
Contract Value: \_\_\_\_\_  
Contract Title: \_\_\_\_\_

[Name of Procurement / Development of IT Software, Operations and Maintenance ” Provider] hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (GoP) through any corrupt business practice.

Without limiting the generality of the foregoing [Name of Procurement / Development of IT Software, Operations and Maintenance ” Provider] represents and warrants that it has fully declared the brokerage, commission, fee etc. paid or payable to anyone and not given or agreed to give and shall not give or agree to give to anyone within or outside Pakistan either directly or indirectly through any natural or juridical person, including its affiliate, agent, associate, broker, Procurement / Development of IT Software, Operations and Maintenance ” Provider, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultations fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP, except that which has been expressly declared pursuant hereto.

[Name of Procurement / Development of IT Software, Operations and Maintenance ” Provider] certifies that it has made and will make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with GoP and has not taken any action or will not take any action to circumvent the above declaration, representative or warranty.

[Name of Procurement / Development of IT Software, Operations and Maintenance ” Provider] accepts full responsibility and strict liability for making and false declaration, not making full disclosure, misrepresenting fact or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other right and remedies available to GoP under any law, contract or other instrument, be voidable at the option of GoP.

Notwithstanding any rights and remedies exercised by GoP in this regard, [Name of Procurement / Development Development of IT Software, Operations and Maintenance ” Provider] agrees to indemnify GoP for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to GoP in an amount equivalent to ten time the sum of any commission, gratification, bribe, finder's fee or kickback given by [Name of Procurement / Development Development of IT Software, Operations and Maintenance ” Provider] as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form from GoP.

[Seller/Procurement / Development Development of IT Software, Operations and Maintenance ” Provider] \_\_\_\_\_ [Buyer]

