

**BIDDING DOCUMENT**  
**NATIONAL COMPETITIVE BIDDING**

**Procurement of Core Data Center  
Equipment and Warranty/Support  
Renewal of Existing Equipment**



**Punjab Land Records Authority**  
**Government of the Punjab**

**Feb 2022**

## Invitation for Bids

Date: [\_\_\_\_\_]

Contract Identification No: [PLRA/PROC/DATACENTER/01/2022]

1. The Punjab Land Records Authority (PLRA) invites sealed bids from eligible bidders, manufacturers, authorized Sales & Service Dealers for the supply of below mentioned item(s):

Lot #	Description
1	Warranty/Subscription & Support Renewal of Cisco Routers, Switches, Firewalls and Email Security Solution
2	Warranty/Subscription & Support Renewal of Dell EMC Networker and SAN Switches
3	Procurement of Firewalls Qty: 06
4	Procurement of Backup Appliance Qty: 02
5	Procurement of Web Application Firewalls (WAF) and API Protection Qty: 03
6	Procurement of SAN Storages Qty:02
7	Procurement of Privilege Access Management
8	Procurement of AD Management Tool and Implementation of AD Tiering

2. Bid document may be purchased from below mentioned address during office working hours against submission of application along with bank deposit receipt of PKR 1000/- in PLRA CPA Account 6580036040700018, Branch Code 0330, Bank of Punjab immediately after publication of advertisement.

3. Bidding shall be conducted through Open Competitive Bidding. "Single Stage Two Envelop" (Technical and Financial bids) procedure as laid down under Rule 38, sub-rule 2(a) of Punjab Procurement Rules (amended to date) shall be used.

4. Sealed Bids must be delivered to the below office **on or before 11-Mar-2022** till **11:00 a.m.** and must be accompanied by Bid Security as mentioned in ITB 15.1 (Section II. Bid Data Sheet) in the form of CDR, Pay Order, Demand Draft, Banker's Cheque or bank guarantee from a Scheduled Bank of Pakistan. Amount of bid security is within five percent of the estimated price as per Rule 27 of PPR 2014. Any bids received after the scheduled time shall not be entertained and would be returned unopened. PLRA may reject all bids at any time prior to the acceptance of a bid.

5. Bids will be opened in the presence of bidders' representatives who choose to attend at **11:30 a.m.** in the Office of PLRA, on the same date.

6. The bidders are requested to give their best and final prices as no negotiations are expected.

7. Taxes will be deducted as per applicable government rules. NTN and Sales Tax registration certificate must be provided.

8. Bid document and invitation of bids are available on the PPRA & PLRA websites. For obtaining any further information or clarifications, please send email to “[proc.officer@punjab-zameen.gov.pk](mailto:proc.officer@punjab-zameen.gov.pk)” or contact at the below mentioned address.

**Dy. Director (Procurement), PLRA**  
**2 km, Thokar Niaz Baig Bypass, Main Multan Road, Lahore**  
**042-99330125-26 (Ext 212), Fax 042-99330127**  
**Web: [www.punjab-zameen.gov.pk](http://www.punjab-zameen.gov.pk)**

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# Part-I

## Section I. Instructions to Bidders

### A. Introduction

- 1. Source of Funds**
  - 1.1 The Procuring Agency named in the Bid Data Sheet has received budget from the Government of Punjab. The Procuring Agency intends to apply a portion of the proceeds of this budget to eligible payments under the contract for which this Invitation for Bids is issued.
  
- 2. Eligible Bidders**
  - 2.1 This Invitation for Bids is open to all suppliers, except as provided hereinafter.
  
  - 2.2 Bidders should not be 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 goods to be purchased under this Invitation for Bids.
  
  - 2.3 Bidders shall not be under a declaration of blacklisting by any Government department or Punjab Procurement Regulatory Authority (PPRA).
  
- 3. Eligible Goods and Services**
  - 3.1 All goods and related services to be supplied under the contract shall have their origin in eligible source countries, defined in the *Bid Data Sheet (BDS)*, and all expenditures made under the contract will be limited to such goods and services.
  
  - 3.2 For purposes of this clause, “origin” means the place where the goods are mined, grown, or produced, or the place from which the related services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially-recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.
  
  - 3.3 The origin of goods and services is distinct from the nationality of the Bidder.
  
- 4. Cost of Bidding**
  - 4.1 The Bidder shall bear all costs associated with the preparation and submission of its bid, and the Procuring Agency named in the Bid Data Sheet, hereinafter referred to as “the Purchaser,” will in

no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

## **B. The Bidding Documents**

- 5. Content of Bidding Documents**
- 5.1 The goods required, bidding procedures, and contract terms are prescribed in the bidding documents. In addition to the Invitation for Bids, the bidding documents include:
- (a) Instructions to Bidders (ITB)
  - (b) Bid Data Sheet
  - (c) Schedule of Requirements
  - (d) Technical Specifications
  - (e) Bid Submission Form
  - (f) Manufacturer's Authorization Form
  - (g) Price Schedules
  - (h) Contract Form
  - (i) Performance Security Form
  - (j) General Conditions of Contract (GCC)
  - (k) Special Conditions of Contract (SCC)
- 5.2 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding documents. Failure to furnish all information required by the bidding documents or to submit a bid not substantially responsive to the bidding documents in every respect will be at the Bidder's risk and may result in the rejection of its bid.
- 6. Clarification of Bidding Documents**
- 6.1 A prospective Bidder requiring any clarification of the bidding documents may notify the Purchaser in writing or by email at the Purchaser's address indicated in ITB Clause 19.1. The Purchaser will respond in writing to any request for clarification of the bidding documents which it receives no later than three (3) days prior to the deadline for the submission of bids prescribed in the Bid Data Sheet. Written copies of the Purchaser's response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective bidders that have received the bidding documents.
- 7. Amendment of Bidding Documents**
- 7.1 At any time prior to the deadline for submission of bids, the Purchaser, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, may modify the bidding documents by amendment.

- 7.2 All prospective bidders that have received the bidding documents will be notified of the amendment in writing or by email, and will be bidding on them.
- 7.3 In order to allow prospective bidders reasonable time in which to take the amendment into account in preparing their bids, the Purchaser, at its discretion, may extend the deadline for the submission of bids.

### **C. Preparation of Bids**

- 8. Language of Bid** 8.1 The bid prepared by the Bidder, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Purchaser shall be written in the language specified in the Bid Data Sheet. Supporting documents and printed literature furnished by the Bidder may be in same language.
- 9. Documents Comprising the Bid** 9.1 The bid prepared by the Bidder shall comprise the following components:
- (a) a Bid Form and a Price Schedule completed in accordance with ITB Clauses 10, 11, and 12;
  - (b) documentary evidence established in accordance with ITB Clause 13 that the Bidder is eligible to bid and is qualified to perform the contract if its bid is accepted;
  - (c) documentary evidence established in accordance with ITB Clause 14 that the goods and ancillary services to be supplied by the Bidder are eligible goods and services and conform to the bidding documents; and
  - (d) bid security furnished in accordance with ITB Clause 15.
- 10. Bid Form** 10.1 The Bidder shall complete the Bid Form and the appropriate Price Schedule furnished in the bidding documents, indicating the goods to be supplied, a brief description of the goods, their country of origin, quantity, and prices.
- 10.2 Alternative bids shall not be considered.
- 11. Bid Prices** 11.1 The Bidder shall indicate on the appropriate Price Schedule the unit prices (where applicable) and total bid price of the goods it proposes to supply under the contract.

11.2 Prices indicated on the Price Schedule shall be **delivered duty paid (DDP) prices**.

11.4 The Bidder's separation of price components in accordance with ITB Clause 11.2 above will be solely for the purpose of facilitating the comparison of bids by the Purchaser and will not in any way limit the Purchaser's right to contract on any of the terms offered.

11.5 Prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account, unless otherwise specified in the Bid Data Sheet. A bid submitted with an **adjustable price quotation** will be treated as nonresponsive and will be rejected, pursuant to ITB Clause 24.

**12. Bid Currencies** 12.1 Prices shall be quoted in **Pak Rupees** unless otherwise specified in the Bid Data Sheet.

**13. Documents Establishing Bidder's Eligibility and Qualification** 13.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the Bidder's eligibility to bid and its qualifications to perform the contract if its bid is accepted.

13.2 The documentary evidence of the Bidder's eligibility to bid shall establish to the Purchaser's satisfaction that the Bidder, at the time of submission of its bid, is eligible as defined under ITB Clause 2.

13.3 The documentary evidence of the Bidder's qualifications to perform the contract if its bid is accepted shall establish to the Purchaser's satisfaction:

(a) that, in the case of a Bidder offering to supply goods under the contract which the Bidder did not manufacture or otherwise produce, the Bidder has been duly authorized by the goods' Manufacturer or producer to supply the in Pakistan;

(b) that the Bidder has the financial, technical, and production capability necessary to perform the contract;

(c) that, in the case of a Bidder not doing business within Pakistan, the Bidder is or will be (if awarded the contract) represented by an Agent in that country equipped, and able to carry out the Supplier's maintenance, repair, and spare parts-stocking obligations prescribed in the Conditions of



Contract and/or Technical Specifications; and

- (d) that the Bidder meets the qualification criteria listed in the Bid Data Sheet.

13.4 A Bidder shall not have a conflict of interest. Any Bidder found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:

- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
- (b) receives or has received any direct or indirect subsidy from another Bidder; or
- (c) has the same legal representative as another Bidder; or
- (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Purchaser regarding this bidding process; or
- (e) participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or
- (f) any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the bid; or
- (g) any of its affiliates has been hired (or is proposed to be hired) by the Purchaser or Borrower for the Contract implementation; or
- (h) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the that directly or indirectly controls, is controlled by, or is under common control with that firm; or
- (i) has a close business or family relationship with a professional staff of the procuring agency (i) are directly or indirectly involved in the preparation of the bidding documents or specifications of the contract, and/or the bid

evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract.

**14. Documents  
Establishing  
Goods'  
Eligibility and  
Conformity to  
Bidding  
Documents**

- 14.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, documents establishing the eligibility and conformity to the bidding documents of all goods and services which the Bidder proposes to supply under the contract.
- 14.2 The documentary evidence of the eligibility of the goods and services shall consist of a statement in the Price Schedule of the country of origin of the goods and services offered which shall be confirmed by a certificate of origin issued at the time of shipment.
- 14.3 The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings, and data, and shall consist of:
- (a) a detailed description of the essential technical and performance characteristics of the goods;
  - (b) a list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period to be specified in the Bid Data Sheet, following commencement of the use of the goods by the Purchaser; and
  - (c) an item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications, or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- 14.4 For purposes of the commentary to be furnished pursuant to ITB Clause 14.3(c) above, the Bidder shall note that standards for workmanship, material, and equipment, as well as references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications, are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names, and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

## **15. Bid Security**

15.1 Pursuant to ITB Clause 9, the Bidder shall furnish, as part of its bid, a bid security in the amount specified in the Bid Data Sheet.

15.2 The bid security is required to protect the Purchaser against the risk of Bidder's conduct which would warrant the security's forfeiture, pursuant to ITB Clause 15.7.

15.3 The bid security shall be in Pak. Rupees and shall be in one of the following forms:

(b) Bank guarantee, Bank call-deposit (CDR), Demand Draft (DD), Pay Order (PO) or Banker's cheque valid for thirty (30) days beyond the validity of bid.

15.4 Any bid not secured in accordance with ITB Clauses 15.1 and 15.3 will be rejected by the Purchaser as nonresponsive, pursuant to ITB Clause 24.

15.5 Unsuccessful bidders' bid security will be discharged or returned as promptly as possible but not later than thirty (30) days after the expiration of the period of bid validity prescribed by the Purchaser pursuant to ITB Clause 16.

15.6 The successful Bidder's bid security will be discharged upon the Bidder signing the contract, pursuant to ITB Clause 32, and furnishing the performance security, pursuant to ITB Clause 33.

15.7 The bid security may be forfeited:

(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Bid Form; or

(b) in the case of a successful Bidder, if the Bidder fails:

(i) to sign the contract in accordance with ITB Clause 32;

**or**

(ii) to furnish performance security in accordance with ITB Clause 33.

## **16. Period of Validity of Bids**

16.1 Bids shall remain valid for the period specified in the Bid Data Sheet after the date of bid opening prescribed by the Purchaser, pursuant to ITB Clause 19. A bid valid for a shorter period shall be rejected by the Purchaser as nonresponsive.

- 16.2 In exceptional circumstances, the Purchaser may solicit the Bidder's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing (or by email). The bid security provided under ITB Clause 15 shall also be suitably extended. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request will not be required nor permitted to modify its bid, except as provided in ITB Clause 16.3.
- 16.3 In the case of fixed price contracts, if the award is delayed by a period exceeding sixty (60) days beyond the expiry of the initial bid validity, the contract price will be adjusted by a factor specified in the request for extension.

**17. Format and  
Signing of Bid**

- 17.1 The Bidder shall prepare an original and the number of copies of the bid indicated in the Bid Data Sheet, clearly marking each "ORIGINAL BID" and "COPY OF BID," as appropriate. In the event of any discrepancy between them, the original shall govern.
- 17.2 The original and the copy or copies of the bid shall be typed or written in indelible ink and shall be signed by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. All pages of the bid, except for unamended printed literature, shall be initialed by the person or persons signing the bid.
- 17.3 Any interlineation, erasures, or overwriting shall be valid only if they are initialed by the person or persons signing the bid.
- 17.4 The Bidder shall furnish information as described in the Form of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract.

**D. Submission of Bids**

**18. Sealing and  
Marking of  
Bids**

- 18.1 The Bidder shall seal the original and each copy of the bid in separate envelopes, duly marking the envelopes as "ORIGINAL" and "COPY." The envelopes shall then be sealed in an outer envelope.
- 18.2 The inner and outer envelopes shall:
- (a) be addressed to the Purchaser at the address given in the Bid Data Sheet; and

(b) bear the title of procurement Activity indicated in the Bid Data Sheet, the Invitation for Bids (IFB) title and number indicated in the Bid Data Sheet, and a statement: “DO NOT OPEN BEFORE,” to be completed with the time and the date specified in the Bid Data Sheet, pursuant to ITB Clause 2.2.

18.3 The inner envelopes shall also indicate the name and address of the Bidder to enable the bid to be returned unopened in case it is declared “late”.

18.4 If the outer envelope is not sealed and marked as required by ITB Clause 18.2, the Purchaser will assume no responsibility for the bid’s misplacement or premature opening.

**19. Deadline for Submission of Bids**

19.1 Bids must be received by the Purchaser at the address specified under ITB Clause 18.2 no later than the time and date specified in the Bid Data Sheet.

19.2 The Purchaser may, at its discretion, extend this deadline for the submission of bids by amending the bidding documents in accordance with ITB Clause 7, in which case all rights and obligations of the Purchaser and bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

**20. Late Bids**

20.1 Any bid received by the Purchaser after the deadline for submission of bids prescribed by the Purchaser pursuant to ITB Clause 19 will be rejected and returned unopened to the Bidder.

**21. Modification and Withdrawal of Bids**

21.1 The Bidder may modify or withdraw its bid after the bid’s submission, provided that written notice of the modification, including substitution or withdrawal of the bids, is received by the Purchaser prior to the deadline prescribed for submission of bids.

21.2 The Bidder’s modification or withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of ITB Clause 18. A withdrawal notice may also be sent by email, but followed by a signed confirmation copy, postmarked not later than the deadline for submission of bids.

21.3 No bid may be modified after the deadline for submission of bids.

21.4 No bid may be withdrawn in the interval between the deadline

for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Bid Form. Withdrawal of a bid during this interval may result in the Bidder's forfeiture of its bid security, pursuant to the ITB Clause 15.7.

### **E. Opening and Evaluation of Bids**

#### **22. Opening of Bids by the Purchaser**

22.1 The Purchaser will open all bids in the presence of bidders' representatives who choose to attend, at the time, on the date, and at the place specified in the Bid Data Sheet. The bidders' representatives who are present shall sign an attendance sheet evidencing their presence.

22.2 The bidders' names, bid modifications or withdrawals, bid prices, discounts, and the presence or absence of requisite bid security and such other details as the Purchaser, at its discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened to the Bidder pursuant to ITB Clause 20.

22.3 Bids (and modifications sent pursuant to ITB Clause 21.2) that are not opened and read out at bid opening shall not be considered further for evaluation, irrespective of the circumstances. Withdrawn bids will be returned unopened to the bidders.

22.4 The Purchaser will prepare minutes of the bid opening.

#### **23. Clarification of Bids**

23.1 During evaluation of the bids, the Purchaser may, at its discretion, ask the Bidder for a clarification of its bid. The request for clarification and the response shall be in writing, and no change in the prices or substance of the bid shall be sought, offered, or permitted.

#### **24. Preliminary Examination**

24.1 The Purchaser will examine the bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

24.2 Arithmetical errors will be rectified on the following basis. If there is a discrepancy between the unit price 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. If the Supplier does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited. If there is a discrepancy between words and figures, the amount in words will prevail.

24.3 The Purchaser may waive any minor informality, nonconformity, or irregularity in a bid which does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any Bidder.

24.4 Prior to the detailed evaluation, pursuant to ITB Clause 25 the Purchaser will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these Clauses, a substantially responsive bid is one which conforms to all the terms and conditions of the bidding documents without material deviations. Deviations from, or objections or reservations to critical provisions, **such as** those concerning **Bid Security** (ITB Clause 15), **Applicable Law** (GCC Clause 30), and **Taxes and Duties** (GCC Clause 32), will be deemed to be a material deviation. The Purchaser's determination of a bid's responsiveness is to be based on the contents of the bid itself without recourse to extrinsic evidence.

24.5 If a bid is not substantially responsive, it will be rejected by the Purchaser and may not subsequently be made responsive by the Bidder by correction of the nonconformity.

## **25. Qualification & Evaluation of Bids**

25.1 In the absence of **prequalification**, the Purchaser will determine to its satisfaction whether the Bidder is qualified to perform the contract satisfactorily, in accordance with the criteria listed in ITB Clause 13.3.

25.2 The determination will take into account the Bidder's financial, technical, and production capabilities. It will be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 13.3, as well as such other information as the Purchaser deems necessary and appropriate.

25.3 The Purchaser will **technically evaluate** and compare the bids which have been determined to be substantially responsive, pursuant to ITB Clause 24, as per Technical Specifications required

25.4 The Purchaser's **financial evaluation** of a bid will be on delivered duty paid (DDP) price inclusive of prevailing taxes and duties.

**26. Contacting the Purchaser** 26.1 Subject to ITB Clause 23, no Bidder shall contact the Purchaser on any matter relating to its bid, from the time of the bid opening to the time evaluation report is made public i.e. 10 days before the contract is awarded. If the Bidder wishes to bring additional information or has grievance to the notice of the Purchaser, it should do so in writing.

26.2 Any effort by a Bidder to influence the Purchaser during bid evaluation, or bid comparison may result in the rejection of the Bidder's bid.

**27. Procedure** 27.1 Bids shall be evaluated on technical and financial grounds as per Single Stage Two Envelopes Bidding procedure.

#### **F. Award of Contract**

**28. Award Criteria** 28.1 Subject to ITB Clause 30, the Purchaser will award the contract to the successful Bidder whose bid has been determined to be substantially responsive and has been determined to be the lowest evaluated bid, provided further that the Bidder is determined to be qualified to perform the contract satisfactorily.

**29. Purchaser's Right to Vary Quantities at Time of Award** 29.1 The Purchaser reserves the right at the time of contract award to increase or decrease, by the percentage indicated in the Bid Data Sheet, the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions.

**30. Purchaser's Right to Accept or Reject All Bids** 30.1 The Purchaser reserves the right to accept or reject all bids, and to annul the bidding process at any time prior to contract award, without thereby incurring any liability to the Bidder or bidders or any obligation to inform the Bidder or bidders of the grounds for the Purchaser's action.

**31. Notification of Award** 31.1 Prior to the expiration of the period of bid validity, the Purchaser will notify the successful Bidder in writing by registered letter or by email, to be confirmed in writing by registered letter, that its bid has been accepted.



31.2 The notification of award will constitute the formation of the Contract.

31.3 Upon the successful Bidder's furnishing of the performance security pursuant to ITB Clause 33, the Purchaser will promptly notify each unsuccessful Bidder and will discharge its bid security, pursuant to ITB Clause 15.

**32. Signing of Contract**

32.1 At the same time as the Purchaser notifies the successful Bidder that its bid has been accepted, the Purchaser will send the Bidder the Contract Form provided in the bidding documents, incorporating all agreements between the parties.

32.2 Within seven (07) days of receipt of the Contract Form, the successful Bidder shall sign and date the contract and return it to the Purchaser.

**33 Performance Security**

33.1 Within fourteen (14) days of the receipt of notification of award from the Purchaser, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, in the Performance Security Form provided in the bidding documents, or in another form acceptable to the Purchaser.

33.2 Failure of the successful Bidder to comply with the requirement of ITB Clause 32 or ITB Clause 33.1 shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security, in which event the Purchaser may make the award to the next lowest evaluated Bidder or call for new bids.

**34. Corrupt or Fraudulent Practices**

34.1 The Procuring Agency requires that Bidders, Suppliers, and Contractors observe the highest standard of ethics during the procurement and execution of contracts. For the purposes of this provision, the terms set forth below are defined as follows:

- (i) "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
- (ii) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Agency,

- (iii) “collusive practice” is an arrangement among bidders (prior to or after bid submission) designed to establish bid prices at artificial, non-competitive levels for any wrongful gains, and to deprive the Procuring Agency of the benefits of free and open competition;
- (b) The Procuring Agency will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (c) The Procuring Agency will sanction a firm, in accordance with prevailing Blacklisting procedures under Punjab Procurement Rules 2014, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, a Bank-financed contract.

34.2 Furthermore, Bidders shall be aware of the provision stated in sub-clause 5.4 and sub-clause 24.1 of the General Conditions of Contract.

## Part-I

### Section II. Bid Data Sheet

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

<b>Introduction</b>	
<b>ITB 1.1</b>	Name of Procuring Agency: Punjab Land Records Authority, Government of Punjab
<b>ITB 1.1</b>	Name of Contract: Procurement of Core Data Center Equipment and Warranty/Support Renewal of Existing Equipment
<b>ITB 4.1</b>	Name of Purchaser: PLRA
<b>ITB 6.1</b>	For clarification purposes, the Employer's address is:  Punjab Land Records Authority 2 km, Thokar Niaz Baig Bypass, Main Multan Road, Lahore 042-99330125-26, Fax 042-99330127  Requests for clarification shall be received by the Employer no Later than <u>03 days</u> before bid submission date.
<b>ITB 8.1</b>	Language of the bid – English

<b>Bid Price and Currency</b>	
<b>ITB 11.2</b>	The price quoted shall be Delivered Duty Paid in accordance with the Schedule of Requirements including the delivery charges
<b>ITB 11.5</b>	The price shall be in Pak Rupees and shall be fixed.

<b>Preparation and Submission of Bids</b>	
<b>ITB 13.2</b>	<ul style="list-style-type: none"> <li>a. Certificate of Incorporation of bidder's firm showing its location and the date of registration etc. (where applicable)</li> <li>b. NTN and GST Registration Certificate</li> </ul>

	<p>c. Affidavit on the stamp paper that the firm has not been black listed by any Government / Semi Government organization.</p> <p>d. Partial bids will not be acceptable; evaluation will be done per lot basis. Bidder will have to bid against all sub-lots of a particular lot.</p> <p>e. If the bidder chooses to bid for more than one lot, the bidder will need to meet the aggregate qualification criteria for those lots.</p>																											
<b>ITB 13.3 (b)</b>	<p>i. Audited Financial Statements for the last 03 financial years (up to June 2021).</p> <p>ii. Bank Statement for the last 06 months (up to Jan 2022).</p>																											
<b>ITB 13.3 (d)</b>	<p><b>Qualification requirements.</b> In addition to ITB 13.1, ITB 13.2, and ITB 13.3 (b), the potential bidder must also fulfill the following:-</p> <p><u>For all Lots:</u></p> <p>i) The Bidder must provide verifiable <b>Manufacturers Authorization Letter</b> from the concerned Principal.</p> <p>ii) Bidder must be operating in the field of IT infrastructure for last 05 years.</p> <p>iii) Bidder shall not quote any device(s)/part(s) in the bid expected to be declared end of support in next 05 years, bidder shall submit documentary proof from the respective principal of brand.</p> <p>iv) <b>Technical Brochures</b> of Equipment quoted, mentioning its specifications, manufacture’s model, product number, and country of origin. (if any)</p> <p>v) <b>Financial Capability:</b> The documentary proof in form of accredited bank statement and third party financial reports to verify the liquid assets / credit facilities per lot is:</p> <table border="1"> <thead> <tr> <th>Lot-#</th> <th>Lot Description</th> <th>Minimum Liquid Assets or Credit Facilities (In Pak Rupees)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Warranty &amp; Support Renewal of Cisco Routers, Switches, Firewalls and Email Security Solution</td> <td>100 Million</td> </tr> <tr> <td>2</td> <td>Warranty &amp; Support Renewal of Dell EMC Networker and SAN Switches</td> <td>100 Million</td> </tr> <tr> <td>3</td> <td>Procurement of Firewalls</td> <td>100 Million</td> </tr> <tr> <td>4</td> <td>Procurement of Backup Solution</td> <td>100 Million</td> </tr> <tr> <td>5</td> <td>Procurement of Web Application Firewalls (WAF) and API Protection Qty: 03</td> <td>100 Million</td> </tr> <tr> <td>6</td> <td>Procurement of SAN Storages Qty:02</td> <td>100 Million</td> </tr> <tr> <td>7</td> <td>Procurement of Privilege Access Management</td> <td>20 Million</td> </tr> <tr> <td>8</td> <td>Procurement of AD Management Tool and Implementation of AD Tiering</td> <td>15 Million</td> </tr> </tbody> </table>	Lot-#	Lot Description	Minimum Liquid Assets or Credit Facilities (In Pak Rupees)	1	Warranty & Support Renewal of Cisco Routers, Switches, Firewalls and Email Security Solution	100 Million	2	Warranty & Support Renewal of Dell EMC Networker and SAN Switches	100 Million	3	Procurement of Firewalls	100 Million	4	Procurement of Backup Solution	100 Million	5	Procurement of Web Application Firewalls (WAF) and API Protection Qty: 03	100 Million	6	Procurement of SAN Storages Qty:02	100 Million	7	Procurement of Privilege Access Management	20 Million	8	Procurement of AD Management Tool and Implementation of AD Tiering	15 Million
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7	Procurement of Privilege Access Management	20 Million																										
8	Procurement of AD Management Tool and Implementation of AD Tiering	15 Million																										

**vi) Experience and Technical Capacity:**

The Bidder shall furnish documentary evidence (copies of signed contracts, purchase orders, work orders which clearly represent the volume of goods supplied) that it has conducted the following business in the last 5 years:

Lot-#	Lot Description	Business Performed (In Pak Rupees)
1	Warranty & Support Renewal of Cisco Routers, Switches, Firewalls and Email Security Solution	30 Million
2	Warranty & Support Renewal of Dell EMC Networker and SAN Switches	30 Million
3	Procurement of Firewalls	50 Million
4	Procurement of Backup Solution	30 Million
5	Procurement of Web Application Firewalls (WAF) and API Protection Qty: 03	30 Million
6	Procurement of SAN Storages Qty:02	50 Million
7	Procurement of Privilege Access Management	20 Million
8	Procurement of AD Management Tool and Implementation of AD Tiering	10 Million

vii) **Authority Letter** from the Bidder Company authorizing the relevant person to represent the company.

viii) It is mandatory that the bidder fill and submit the specification compliance / conformance sheet.

ix) If an Agent submits bids on behalf of more than one Manufacturer, unless each such bid is accompanied by a separate Bid Form for each bid, and a bid security, when required, for each bid, and a valid authorized dealership certificate from the respective Manufacturer, all such bids will be rejected as nonresponsive.

x) For each Lot & Sub-Lots, only completed Contracts / Purchase / Work Orders, which are relevant to the equipment quoted, will be considered as the business done.

xi) Bids against each lot will be evaluated separately. If the bidder chooses to bid for more than one lot, the bidder will need to meet the aggregate qualification criteria for those lots. Award of contract to the successful bidder shall be made as per individual lots.

xii) Partial and incomplete offering in any of the lots, shall result in rejection of the bid.

xiii) Joint Venture (JV) is not allowed.

**Lot-1 Warranty/Subscription & Support Renewal of Cisco Routers, Switches, Firewalls and Email Security Solution only:**

a) Bidder must be a Cisco Gold partner.

- b) Bidder must have successfully deployed 02 enterprise grade DC solutions (cisco) or having experience of maintaining SLA of same level infrastructure of same brand.
- c) Bidder must have at least four (4) CCIE resources for level-1 support.

**Lot-2 Warranty/Subscription & Support Renewal of Dell EMC Unity, Networker and SAN Switches only**

- a) Bidder must be a Dell EMC partner.
- b) Bidder must have successfully deployed 02 enterprise grade DC solutions (dell) or having experience of maintaining SLA of same level infrastructure of same brand (dell).

**Lot-3 Procurement of Firewalls only:**

- a) Bidder must be a top tier partner of principal.
- b) Quoted brand of firewalls must fall in either Leaders or Challengers magic quadrant of Gartner 2021.
- c) Enterprise grade firewalls of same quoted brand must be deployed in Primary Datacenter of 5x organizations (public / private) each having 300x branches across the province/country.
- d) Bidder must have at least three (3) top level certified resources on the same quoted brand.

**Lot-4 Procurement of Backup Appliance only:**

- a) Bidder must be a partner of quoted brand.
- b) Bidder must have successfully deployed 02 backup appliances / upgrades of Min. 60TB each of same quoted brand.
- c) Bidder must have at least two (2) certified resources on the same quoted brand.

**Lot-5 Web Application Firewalls (WAF) and API Protection only:**

- a) Bidder must be a partner of quoted brand.
- b) Bidder must have successfully deployed 02 WAF/ADC appliances of same quoted brand.
- c) Bidder must have at least two (2) certified resources on the same quoted brand.

**Lot-6 Procurement of SAN Storages only:**

- a) Bidder must be a partner of quoted brand.
- b) Quoted brand of storage must fall in Leaders magic quadrant of Gartner 2021.
- c) Bidder must have successfully deployed 02 storages of 60TB each of same quoted brand.
- d) Bidder must have at least two (02) certified resources on the same

	<p>quoted brand.</p> <p><b>Lot-7 Procurement of Privilege Access Management only:</b></p> <p>a) Bidder must have executed at least 03 deployments of the quoted solution. Bidder must provide verifiable evidence for the deployments.</p> <p>b) The Proposed solution must be among the leaders Quadrant in latest Gartner Magic Quadrant report for Privileged Access Management (PAM).</p> <p>c) Bidder shall be working in field of Information /Cyber Security in Pakistan for at least last three (03) years.</p> <p>d) Bidder shall have a skilled and professional team possessing the right experience as per the project’s technical requirements. CVs of the project Manager and team shall be provided.</p> <p>e) Vendor should be a Premium/Tier-1 or equivalent Partner of the OEM.</p> <p><b>Lot-8. Procurement of AD Management Tool and Implementation of AD Tiering only:</b></p> <p>a) The Bidder must provide minimum 05 local or global references for the project encompassing Design, Delivery, Configuration and Management of Microsoft Active Directory and Microsoft Exchange. The references for Microsoft Active Directory and Microsoft Exchange must comprise of environments having 500+ users. Documentary proof is required in terms of Contract / Purchase Orders.</p> <p>b) Bidder must be operating in the field of Professional Services for last 5 years, with focus on Design, Licensing, Deployment, Managed Services and Delivery. Documentary proof is required in terms of Contract / Purchase Orders.</p> <p>c) Bidder must have Industry standard Certified Engineers with professional and expert level certifications. Documentary proof is required in terms of CVs of certified engineers.</p>
<b>ITB 14.3 (b)</b>	<p>A certificate from the dealer that all spare parts of the equipment to be supplied are easily available in Pakistan in the local market or from company owned outlets.</p>
<b>ITB 15.1</b>	<p><b>Amount of Bid Security:</b></p> <p>Bids shall be in the prescribed format, sealed and accompanied by Bid Security in the form of bank guarantee, CDR, Pay Order, Demand Draft, or Banker’s Cheque from a Scheduled Bank of Pakistan in favor of PLRA. <b>Validity of bid security shall be 150 days after opening of bids.</b></p>

		Lot#	Bid Security Amount (PKR)
		1	1,700,000
		2	800,000
		3	2,100,000
		4	1,900,000
		5	650,000
		6	1,700,000
		7	300,000
		8	150,000
<b>ITB 16.1</b>	<b>Bid Validity Period: 120 days</b> after the date of opening of bid.		
<b>ITB 17.1</b>	<b>Number of Copies: Original</b> along with <b>one Copy</b> of the bid. <b>Bidders will also submit soft copy of Technical Portion of bid.</b>		
<b>ITB 18.2 (a)</b>	<b>Address for Bid Submission:</b>  <b>PLRA</b> <b>2 km, Thokar Niaz Baig Bypass, Main Multan Road, Lahore</b> <b>042-99330125-26, Fax 042-99330127</b> <b>Web: www.punjab-zameen.gov.pk</b>		
<b>ITB 18.2 (b)</b>	<b>IFB Title and Number:</b> <b><u>PLRA/PROC/DATACENTER/01/2022</u></b>  Procurement of Core Data Center Equipment and Warranty/Support Renewal of Existing Equipment		
<b>ITB 19.1</b>	Deadline for <b>Bid Submission:</b> <b><u>11-Mar-2022 till 11:00 a.m.</u></b>		
<b>ITB 22.1</b>	<b>Date, Time and Place for Bid Opening:</b> <b><u>11-Mar-2022 at 11:30 a.m.</u></b>  PLRA 2 km, Thokar Niaz Baig Bypass, Main Multan Road, Lahore 042-99330125-26, Fax 042-99330127		

<b>Bid Evaluation</b>	
<b>ITB 25.3</b>	Criteria for bid evaluation: Lowest Delivered Duty Paid (DDP) Total Price offered by the qualified responsive bidder.



<b>Contract Award</b>	
<b>ITB 29.1</b>	Percentage for quantity increase or decrease: 15 % of total contract value

## Part-I

### Section III. Schedule of Requirements

Lot #	Description	Warranty & Support Duration	Delivery / Deployment Period of equipment from the Signing of Contract
Lot-1	Warranty & Support Renewal of Cisco Routers, Switches, Firewalls	For a period of 03 years or till the end of product support, whichever comes/meets first on each and every component. However, for end-of support components supplier will remain responsible for replacement of faulty part with adequate replacement.	Warranty, support & subscription renewal shall be commenced from the existing date of expiry. If the current expiry of equipment/software passed away before awarding of the contract, then warranty, support & subscription renewal should commence on any date within 30x days of contract awarding.
Lot-2	Warranty & Support Renewal of Dell EMC Networker, SAN Switches	For a period of 03 years or till the end of product support, whichever comes/meets first on each and every component. However, for end-of support components supplier will remain responsible for replacement of faulty part with adequate replacement.	Warranty, support & subscription renewal shall be commenced from the existing date of expiry. If the current expiry of equipment/software passed away before awarding of the contract, then warranty, support & subscription renewal should commence on any date within 30x days of contract awarding.
Lot-3	Procurement of Firewalls	03 Years	120 days for hardware delivery and 30x days for deployment
Lot-4	Procurement of Backup Appliance	03 Years	120 days for hardware delivery and 30x days for deployment
Lot-5	Procurement of Web Application Firewalls (WAF)	03 Years	120 days for hardware delivery and 30x days for deployment.
Lot-6	Procurement of SAN Storages	03 Years	120 days for hardware delivery
Lot-7	Procurement of Privilege Access Management	01 Year	90x days for delivery and deployment.
Lot-8	Procurement of AD Management Tool and Implementation of AD Tiering	01 Years	<ul style="list-style-type: none"> <li>• 60x days for delivery and deployment of AD software</li> <li>• 90x days for implementation, testing and verification of Tiering model</li> </ul>

- All the BIOS, Menues and management tools, utilities and documentation must be in English. (Submit documentary proof with bid document)
- Purchaser will verify from principal, whether equipment supplied under contract is in warranty, genuine and as per support terms mentioned in this document. Purchaser will also verify Part & Serial numbers from manufacturer. All equipment supplied must be brand new, any component / part from ex-stock or grey channel will not be acceptable.

# Part-I

## Section IV. Technical Specifications

- All the BIOS, Menues and management tools, utilities and documentation must be in English. (Submit documentary proof with bid document)
- Purchaser will verify from principal, whether equipment supplied under contract is in warranty, genuine and as per support terms mentioned in this document. Purchaser will also verify subscription / part & serial numbers from manufacturer’s website. All equipment supplied must be brand new, any component / part from ex-stock or grey channel will not be acceptable.

### Lot-1. Warranty/Subscription & Support Renewal of Cisco Routers, Switches, Firewalls

Product Name	Product Description	Quantity	Compliance (Yes/No) / Part No.
UCS-FI-6248+A4:C900UP-UPG	UCS 6248UP 1RU Fabric Int/No PSU/32 UP/ 12p LIC	4	
FS-VMW-10-SW-K9	Cisco Firepower Management Center,(VMWare) for 10 devices	1	
UCSB-5108-AC2	UCS 5108 Blade Server AC2 Chassis, 0 PSU/8 fans/0 FEX	5	
UCSB-B420-M4	UCS B420 M4 Blade Server CPU, memory, HDD, mLOM	9	
UCSB-B480-M5	UCS B480 M5 Blade CPU, mem, HDD, mezz	4	
UCSB-B200-M5	UCS B200 M5 Blade CPU, mem, HDD, mezz	5	
ASR1004	Cisco ASR1004 Router Chassis, Dual P/S	3	
ISR4431-SEC/K9	Cisco ISR 4431 Sec bundle w/SEC license	2	
FPR2110-NGFW-K9	Cisco Firepower 2110 NGFW Appliance, 1U	2	
UCS-FI-6332-16UP-U	UCS 6332-16UP 1RU FI/No PSU/24 QSFP+ 16UP/4x40G Lic/8xUP Lic	2	
ESA-ESP-AT-LIC SMA-EMGT-LIC	Cisco Email AMP, Threat Grid Premium File Analysis and Reporting subscription renewal	1500 each	
Nexus 7K	Cisco Nexus 7K Switches	3	

Note: Detail of subcomponents (BOQ) against each above line item shall be provided by the principal Cisco, supplier shall submit duly signed & stamped complete BOQ comprising of all subcomponents.

#### Related Services:

1. Supplier will remain responsible till expiry of warranties for any change in design, configuration of equipment, which doesn't required any further hardware or licensing.
2. Supplier will remain responsible for upgradation of firmware, IOS version and software of equipment supplied till expiry of the contract.
3. Replacement of faulty parts will be required in Next Business Day (NBD).

## Lot-2 Warranty & Support Renewal of Dell EMC Unity, Networker and SAN Switches

Renewal Item	Serial Number	Model Number	Model Description	Support Option	QTY	Family	Compliance (Yes/No) / Part No.
EMC Unity	CKM00191100275 CKM00191100276	Dell EMC Unity 400			2	STORAGE	
EMC Networker	ELMNET10170Z7G	456-112-152	NW 9.1 SRC CAP 1TB ENTLMNT; 11-50TB=CA	PREMIUM SOFTWARE SUPPORT (DD)	30	NETWORKER	
EMC Connectrix FC Switches	BRCBRW1944L00J	DS-6510R-8GB	DS-6510R-B 24P/48P 8GB RTF BASE SWITCH	PREMIUM HARDWARE SUPPORT	1	CONNECTRIX	
	BRCBRW1946L00A				1	CONNECTRIX	
	BRCBRW1946L008				1	CONNECTRIX	
	BRCBRW1946L00X				1	CONNECTRIX	

### Related Services:

- Equipment and services must be deployed as per concerned principal best practices.
- Replacement of faulty parts will be required in Next Business Day (NBD).

## Lot-3 Procurement of Firewalls

Item-I	Core Firewalls Qty: 03	Compliance (Yes/No) / Part No.
<b>Feature</b>	<b>Detail Description</b>	
Hardware architecture	Should have multi-core Intel Xeon or higher architecture with multicore Distributed RAM. Must have Storage 400GB or Higher	
I/O Requirement	Required 8x10G SFP+ (Loaded with SR SFP) with required Cables and fail to wire module support or Higher.	
Performance	Required Threat Protection throughput 17 Gbps with all features enabled at HTTP layer (UDP based throughput performance numbers will not be accepted). Stateful Inspection should be at-least 40Gbps or higher, IPS throughput of 17Gbps or Higher	
	new connection 95K per second and 8 M TCP concurrent connections or Higher with threat protection and app visibility. IPSec VPN throughput should be 8.0 Gbps and 10K vpn peers or higher	
	Must support Clustering for 15 appliances or Higher.	
Feature Requirement	The proposed firewalls solution shall be capable of detecting link failure in addition to device failure.	
	The proposed firewalls shall support standards-based link aggregation (IEEE 802.3ad) to achieve higher bandwidth.	
	The proposed firewall Must support Active/Standby and Active/Active clustering.	
	The proposed firewall should support Layer-3 routing protocols including static, OSPF and BGP	
	The firewall should support Layer 1, Layer 2 and Routed mode deployment	
	NGIPS with full contextual awareness of users, infrastructure, applications, and content to detect multi-vector threats	
	Required granular Application Visibility and Control with support for at least 4,000 applications or higher	
	Required NGIPS signature for at-least 16,000 with the ability to add custom signatures. Geo location of IP Addresses	
	The firewall should support SSL decryption to enforce NGIPS & NGIPS policies, SSL decryption of the published web servers using the certificate server of the servers and applying the layer 7 policies	
The firewall should support rate-limiting traffic on the basis of users, applications, AD groups, etc.		

Item-I	Core Firewalls Qty: 03	Compliance (Yes/No) / Part No.
Feature	Detail Description	
	Identify and control applications on any port, not just standard ports (including applications using HTTP or other protocols)	
	Support creation of security policy based on AD Users and Groups, detection and prevention against tunnel /encapsulated attacks, p2p application related threats. Protect against IP and TCP fragmentation related attacks	
	Support creation of user-defined application protocol detectors, policy control by port and protocol, application, user/group, IP address, IPV6 rules/objects and multicast rules/objects etc.	
	File control - detect and block users from uploading (sending) or downloading (receiving) files of specific types over specific application protocols.	
	The solution must have content awareness with comprehensive file detection policies and blocking of files by types, protocols and directions.	
	Automated threat feed and IPS signature updates, and threat correlation	
	Integration with Snort and OpenAppID - Open source security integration with Snort and OpenAppID for access to community resources and ability to easily customize security to address new and specific threats and applications quickly. support for custom, open source, application detectors	
	Full contextual awareness policy enforcement based on complete visibility of users, mobile devices, client-side applications, communication between virtual machines, vulnerabilities, threats, and URLs	
	Advance Malware Protection must not only prevent network breaches but also rapidly detect, contain, and remediate threats if they evade front-line defences (Internet security layer)	
	Detect, store, track, analyse, and optionally block malware files being transmitted from Internet to internal corporate network	
	Analyses files at point of entry to catch known and unknown malwares	
	Block malware trying to enter the Data Center network in real time by using one-to-one signature matching (know file sigs), machine learning, fuzzy fingerprinting, and dynamic file analysis technologies	
	Continuously monitors and analyses all file activity, processes, and communications. If a file exhibits malicious behaviour, the device must detect it and provide retrospective alerts, indications of compromise, tracking, and analysis, so IT security teams can surgically remediate it	
	Continuously track file propagation over time throughout the network in order to achieve visibility and reduce the time required to scope a malware breach.	
	Continuously track activity and communication on devices and on the system level to quickly understand root causes and the history of events leading up to and after a compromise.	
	Dashboards must show exactly where malware threats have been, what they did, and the root causes so that IT Security can quickly contain and remediate them	
	The solution must support machine learning and Big Data Security Analytics	
	The solution must be able to analyse the following conditions: Once you have the "unknown" file - you can run it through the sandbox to get screen shots, PCAPs, original sample, static analysis, running analysis of files dropped, URL connected to etc.	
	Support network traffic classification application identification across all ports	
	Provide multiple mechanisms for classifying applications and application identification technology based upon Intrusion Prevention System (IPS) or deep packet inspection.	
	Provide the ability to allow the organization to create customized application rules	
	Have searchable list of currently identified applications with explanation and links to external sites for further clarification.	
	Accurately classify traffic based on application (example: Gmail or Facebook etc.)	
	The proposed firewalls shall have a dedicated reporting management system capable of generating reports on a manual ad-hoc or schedule (daily, weekly, monthly, etc) basis.	

Item-I	Core Firewalls Qty: 03	Compliance (Yes/No) / Part No.
Feature	Detail Description	
	The management platform must include an integration mechanism, to enable events and log data to be shared with external network and security management applications, such as trouble-ticketing systems, (SIEMs), NOC/SOC etc.	
Warranty, Support and Licensing requirement	24x7x4 onsite Hardware Warranty by manufacturer and Technical Support for three (03) years.	
	Device Must be equipped with three (03) year signature database update including IPS/Threat protection/advanced Malware/sandboxing.	

Item-II	Edge Firewalls Qty: 03	Compliance (Yes/No) / Part No.
Feature	Detail Description	
Hardware architecture	Should have multi-core architecture with multicore Distributed RAM or Higher, Must have Storage 200GB or Higher	
I/O Requirement	Required 8xGE RJ45, 2 x 1GE SFP and 2 x 10G SFP+ Interfaces with 2x10G MM SR SFP optical transceiver loaded or higher	
Performance	Required Threat Protection throughput 4.85Gbps with all features enabled at HTTP layer (UDP based throughput performance numbers will not be accepted), IPS Throughput of 6 Gbps or Higher, Stateful Inspection should be at-least 7Gbps or Higher	
	Required TCP concurrent session with application aware 600K or Higher	
	Required IPsec VPN throughput should be 1.5Gbps or Higher, VPN peers should 0.75K or Higher	
Feature Requirement	The proposed firewalls solution shall be capable of detecting link failure in addition to device failure.	
	The proposed firewalls shall support standards-based link aggregation (IEEE 802.3ad) to achieve higher bandwidth.	
	The proposed firewall Must support Active/Standby clustering.	
	The proposed firewall should support Layer-3 routing protocols including static, OSPF and BGP.	
	The firewall should support Layer 1, Layer 2 and Routed mode deployment	
	NGIPS with full contextual awareness of users, infrastructure, applications, and content to detect multi-vector threats	
	Required granular Application Visibility and Control with support for at least 4,000 applications or higher	
	Required NGIPS signature for at-least 16,000 with the ability to add custom signatures. Geo location of IP Addresses	
	The firewall should support SSL decryption to enforce NGIPS & NGIPS policies, SSL decryption of the published web servers using the certificate server of the servers and applying the layer 7 policies	
	The firewall should support rate-limiting traffic on the basis of users, applications, AD groups, etc.	
	Identify and control applications on any port, not just standard ports (including applications using HTTP or other protocols)	
	Support creation of security policy based on AD Users and Groups, detection and prevention against tunnel /encapsulated attacks, p2p application related threats. Protect against IP and TCP fragmentation related attacks	
	Support creation of user-defined application protocol detectors, policy control by port and protocol, application, user/group, IP address, IPV6 rules/objects and multicast rules/objects etc.	
	File control - detect and block users from uploading (sending) or downloading (receiving) files of specific types over specific application protocols.	
The solution must have content awareness with comprehensive file detection policies and blocking of files by types, protocols and directions.		

Item-II	Edge Firewalls Qty: 03	Compliance (Yes/No) / Part No.
Feature	Detail Description	
	Automated threat feed and IPS signature updates, and threat correlation	
	Integration with Snort and OpenAppID - Open source security integration with Snort and OpenAppID for access to community resources and ability to easily customize security to address new and specific threats and applications quickly. support for custom, open source, application detectors	
	Full contextual awareness policy enforcement based on complete visibility of users, mobile devices, client-side applications, communication between virtual machines, vulnerabilities, threats, and URLs	
	Advance Malware Protection must not only prevent network breaches but also rapidly detect, contain, and remediate threats if they evade front-line defences (Internet security layer)	
	Detect, store, track, analyse, and optionally block malware files being transmitted from Internet to internal corporate network	
	Analyses files at point of entry to catch known and unknown malwares	
	Block malware trying to enter the Data Center network in real time by using one-to-one signature matching (know file sigs), machine learning, fuzzy fingerprinting, and dynamic file analysis technologies	
	Continuously monitors and analyses all file activity, processes, and communications. If a file exhibits malicious behaviour, the device must detect it and provide retrospective alerts, indications of compromise, tracking, and analysis, so IT security teams can surgically remediate it	
	Continuously track file propagation over time throughout the network in order to achieve visibility and reduce the time required to scope a malware breach.	
	Continuously track activity and communication on devices and on the system level to quickly understand root causes and the history of events leading up to and after a compromise.	
	Dashboards must show exactly where malware threats have been, what they did, and the root causes so that IT Security can quickly contain and remediate them	
	The solution must support machine learning and Big Data Security Analytics	
	The solution must be able to analyse the following conditions: Once you have the "unknown" file - you can run it through the sandbox to get screen shots, PCAPs, original sample, static analysis, running analysis of files dropped, URL connected to etc.	
	Support network traffic classification application identification across all ports	
	Provide multiple mechanisms for classifying applications and application identification technology based upon Intrusion Prevention System (IPS) or deep packet inspection.	
	Provide the ability to allow the organization to create customized application rules	
	Have searchable list of currently identified applications with explanation and links to external sites for further clarification.	
	Accurately classify traffic based on application (example: Gmail or Facebook etc.)	
	The proposed firewalls shall have a dedicated reporting management system capable of generating reports on a manual ad-hoc or schedule (daily, weekly, monthly, etc) basis.	
	The management platform must include an integration mechanism, to enable events and log data to be shared with external network and security management applications, such as trouble-ticketing systems, (SIEMs), NOC/SOC etc.	
	Centralized security management console with dedicated hardware. Database repository for event and policy management of NGFW and Advance Malware Detection and Prevention or Higher	
Centralized Management <sup>1</sup> , Monitoring & Reporting	The dedicated hardware appliance. or Hardware for VM: have intel based or equivalent architecture with at least 32 GB RAM, have 900 GB SSD	

<sup>1</sup> In case, bidder is quoting Cisco Based firewall solution, no need to quote Centralized Management Tool and incorporate its cost, as PLRA already operating FMC for its existing FTDs.

Item-II	Edge Firewalls Qty: 03	Compliance (Yes/No) / Part No.
Feature	Detail Description	
	of usable storage space (after RAID) for event/logs storage, have dual network interfaces, redundant power supplies, come with all the required OS/SW/HW pre-installed	
	Centralized configuration, logging, monitoring, and reporting for NGFW and Advance Malware Detection and Prevention	
	Centrally manage network security and operational functions, including event monitoring, analysis, incident prioritization, and reporting.	
	Required Centralized Management for Minimum 20 Appliances from day one or Higher	
	Automatically aggregate and correlate information generated by Next Generation Firewall, Next Generation and Advance Malware Detection.	
	Provide full stack visibility including physical and virtual hosts, operating systems, applications, services, protocols, users, geo-location information, content, and network behavior as well as network attacks and malware trajectory	
	Provide full stack visibility covering breadth of contextual awareness including: Threats, Users, Web Applications, Client Applications, File transfers, Malware, CNC server, Network Servers, Server/host operating system, mobile devices and virtual machines	
	Role-based device user management	
	Customizable dashboard with custom and template-based reports	
	Correlation and remediation features for real-time threat response	
	Network behaviour and performance monitoring. On prem monitoring with NOC/SOC seamless integration.	
	The management platform must include an integration mechanism, to enable events and log data to be shared with external network and security management applications, such as trouble-ticketing systems, SIEMs, systems management platforms, and log management tools.	
	The management platform must include an integration mechanism, preferably in the form of open APIs and/or standard interfaces, to export SNMP information to network management systems.	
Warranty, Support and Licensing requirement	24x7x4 onsite Hardware Warranty by manufacturer and Technical Support for three (03) years.	
	Device Must be equipped with three (03) year signature database update including IPS/Threat protection/URL/advanced Malware/sandboxing.	

**Related Services:**

1. Successful Bidder / Supplier will be responsible for Assembly, initialization, installation, configuration and other related tasks regarding to supplied equipment.
2. Supplier shall align Principal of the quoted brand for implementation of supplied equipment as per industry best practices.
3. Supplier will remain responsible till expiry of warranties for any change/amendment in design, configuration of equipment, which doesn't required any further hardware or licensing.
4. Supplier will remain responsible for upgradation of firmware, IOS version and software of equipment supplied till expiry of the contract.
5. Replacement of faulty parts will be required in Next Business Day (NBD).
6. Supplier must provide comprehensive 5-day training to PLRA staff by the highly professional skilled Certified resource (s).



**Lot-4 Procurement of Backup Appliance**  
**Qty: 02**

<b>Feature</b>	<b>Detail Description</b>	<b>Compliance (Yes/No) / Part No.</b>
<b>Architecture</b>	Purpose built disk-based backup appliance with native capability of data deduplication.	
<b>Capacity</b>	<b>110TB</b> usable capacity (post-RAID capacity ignoring dedupe factor) with global deduplication (i.e. global deduplication irrespective of number of logical containers or backup devices created/used in the system)	
<b>Scalability</b>	Should provide data in place upgrade and scalability to <b>170 TB</b> the proposed post-RAID capacity. Can use object storage as external tier for long term retention.	
<b>Protection and Fault Tolerance</b>	Must have robust fault tolerance and self healing mechanism. E.g. RAID with hot spare, end-to-end verification without performance degradation, NVRAM or equivalent, snapshots to protect against physical and logical failures. System should be able to survive double disk failure.	
<b>Clean-up /Housekeeping</b>	System should have seamless self-maintenance and housekeeping mechanism (e.g. clean-up, garbage collection) without affecting routine backup/recovery and replication operations.	
<b>Deduplication Technology</b>	Solution should offer In-line variable length deduplication. Solution must also support source side deduplication and any required deduplication license(s) must be included for target and source-side deduplication.	
<b>Connectivity</b>	Should have 10G/1GbE and 16G FC interfaces. Must support IPv4 and IPv6 both.	
<b>Protocols</b>	Should support multiple backup protocols (VTL, NFS, CIFS, NDMP and any other recommended proprietary protocol) simultaneously. All protocol licenses must be included.	
<b>Throughput</b>	Can handle <b>20TB/hr</b> or more throughput using the proposed protocol(s)	
<b>Backup Software Support</b>	<b>Must be compatible and can integrate with Dell EMC Networker (existing backup software).</b>  Should also support integration with industry leading backup softwares and native utilities (Netbackup, TSM/Spectrum Protect, Avamar etc. and native utilities like Oracle RMAN, BR*Tools, MSSQL backup) with and without source side deduplication	
<b>Platforms Compatibility</b>	Should support integration with open systems, and any other specialized platforms e.g. IBMi	
<b>Security and Encryption</b>	Should support strong encryption of data-at-rest/in replication. Required license should be included. Solution must meet compliance standards for data, including SEC 17a-4. Solution must support secure-multi-tenancy. Should also support locking the data from deletion and forging to make it immutable.	
<b>Replication</b>	Network optimized replication with capability of bandwidth throttling. Solution must support 1:1, many:1, 1:many, and cascaded replication. Required replication license(s) should be included for entire capacity. Solution should support immediate replication of backups to maximize DR readiness and minimize lage between production and DR.	

<b>Call Home Support</b>	Appliance must have Call Home capability (system should generate an alert to the principal support to log a case in case of any critical error)	
<b>Warranty/Support</b>	3 year 24x7 comprehensive direct local on-site support from manufacturer with spare parts. Please enclose proposed support level details.	
<b>Industry Rating</b>	Should be leading in backup appliance market space.	
<b>Cyber Recovery Solution</b>		
<b>Mission Critical Data</b>	20TB front-end to be stored on a fully integrated backup storage	
<b>Architecture</b>	Robust solution for secure vaulting and analysis of backups against malware/ransomware attack	
<b>Core Functionality</b>	Must offer key features for providing ultra-secure copies of backups to recover from a cyber attack/ransomware attack including (1) Automated Isolation/Air-Gap, (2) Data Immutability, (3) Analytics/deep scanning for anomaly detection	
<b>Anomaly Detection</b>	Should have an intelligent/AI based mechanism and machine learning without having dependency on virus signatures for detecting malicious activity/malware/ransomware.	
<b>OS/Platform Support</b>	Must provide secure vaulting for Oracle, SQL, Exchange, SAP, Windows/Linux filesystem backups.	
<b>Backup Applications Support</b>	<b>Must be compatible and can integrate with Dell EMC Networker (existing backup software).</b>  Should also support major backup applications e.g. Netbackup, CommVault, PowerProtect DM, TSM/Spectrum Protect and Avamar.	
<b>Scalability</b>	Proposed solution must be able handle growth to 4x the proposed capacity under single management	
<b>Backup Repository</b>	Must support and integrate with existing/new Data Domain systems in production.	
<b>Network</b>	Must have 10G and 1G connectivity for cyber recovery vault ingress/egress and internal connectivity	
<b>Infrastructure Components</b>	Required infrastructure components for building cyber recovery vault (e.g. compute, switch, management software) must be included in the proposed solution	
<b>Management and Monitoring</b>	Modern UI/management and monitoring and alerting mechanism to report suspicious/malware/ransomware	
<b>Warranty/Support</b>	3yr 24x7 Warranty/Support. All components (Hardware and Software), must be covered in a one-window support contract.	

**Related Services:**

- Equipment and services must be deployed as per concerned principal best practices.
- Supplier shall be responsible to integrate appliance with Networker software.

**Lot-5 Web Application Firewall and API Protection**  
**Qty: 03**

Sr. #	Hardware Specification	Compliance (Yes/No) / Part No.
1	The proposed solution should be Hardware based appliance.	
2	The proposed hardware appliance should support 10Gbps of L4/L7 throughput from Day#1 and scalable up to 20 Gbps L7 throughput with just license.	
3	The proposed solution should support 32GB RAM from Day#1	
4	The appliance should support minimum 200GB HDD / SSD disk from Day#1 or Higher	
5	The proposed solution Should support at least 1.1 Million L7 HTTP Requests per Sec or Higher	
6	The proposed solution Should support minimum 13 000 SSL TPS at 2K for SSL offloading or higher	
7	The proposed appliance should support 4x 10GE SFP+ interfaces loaded with SFPs or higher	
8	The proposed solution should support 6x 10/100/1000 CU interfaces or higher	
9	The proposed solution should support AC dual power supply from Day#1	
10	The appliance must have Next business day hardware replacement and three years licenses and subscription included.	
11	<b>Advanced WAF capabilities</b>	
12	The solution should support integrated WAF solution From Day#1 and must identify and mitigate the OWASP Top Ten 2017 web application security vulnerabilities.	
13	The WAF solution should support Inline Mode, Reverse proxy mode of deployments	
14	The WAF solution should support minimum TLS 1.3 encryption protocol From Day#1	
15	The Proposed WAF Solution Should support ICAP integration with other security devices for file scanning from Day#1	
16	The WAF solution should support and integrate with at least 03 of the following web application vulnerability assessment tools (Web application scanners) to virtually patch web application vulnerabilities like: - IBM, - Qualys, - Rapid7, -Whitehat, -Cenzic	
17	Proposed WAF solution should support dynamic Profiling for Automatic deployment by learning rules.	
18	Proposed WAF solution should support protection of JSON applications from content-level DoS, SQL, or cross-site scripting attacks.	
19	The proposed WAF solution should support XML Protection including following:  <ul style="list-style-type: none"> <li>- XML Format checks.</li> <li>- XML Denial-of-Service</li> <li>- XML Cross-Site Scripting</li> <li>- XML SQL Injection</li> <li>- XML Attachments inspection</li> <li>- Web Services Interoperability</li> <li>- XML Message Validations</li> <li>- XML SOAP Fault Filtering</li> </ul>	
20	The system must provide IP reputation blacklisting in an automated process; with regular reputation updates.	
21	The system must provide Bot Management with these 6 different detection techniques using: white list, black list, IP Reputation, Device fingerprinting, rate limiting and bot signatures.	
22	Must support Dynamic Profiling - The learning feature is a pattern filter that observes and learns activities on the back-end server. Based on the observation, the learning engine generates up to 2000 rules or exceptions (relaxations) for each security check.	
23	The Proposed WAF solution should support data-leak-prevention to prevent leaks of sensitive information, such as credit card numbers and social security numbers, to unauthorized recipients.	
24	The proposed WAF solution should support advanced Form Protection to examine web form data to prevent attackers from compromising our system by modifying the web forms on our web sites or sending unexpected types and quantities of data to website in a form.	

Sr. #	Hardware Specification	Compliance (Yes/No) / Part No.
	<ul style="list-style-type: none"> <li>- Field Formats inspection</li> <li>- Form Field Consistency inspection</li> <li>- CSRF Form Tagging inspection</li> </ul>	
25	The proposed WAF solution should support built in bot detection and prevention technologies to help mitigate the effect of bots on our assets from Day#1	
26	The proposed WAF solution should support artificial intelligence and machine learning techniques to help spot more sophisticated bots which mimic human behavior	
27	The proposed solution should have a built in IP reputation filter that updates dynamically as new bot threats are discovered from Day#1	
28	The proposed solution would support in creating blacklists of known bad bots and white lists of good bots - like search engine crawlers.	
29	The proposed solution should support signature based with minimum 3500+ signatures to detect bots.	
30	The solution should also support fingerprints incoming clients to determine if they are a bots.	
31	The proposed Solution should challenge doubtful clients with a CAPTCHA to avoid false positives	
32	The proposed BOT mitigation solution should support a variety of mitigation mechanisms to prevent bots straining our infrastructure and protect from applications abuse with Block Mode / Redirect Mode/ Rate Limit / Challenge.	
33	Proposed WAF solution should support Cookie proxy and encryption	
34	Proposed WAF solution should support SOAP array attack protection	
35	The proposed solution should support Denial of Service attacks to continue service for legitimate users while protecting against attacks such as SYN Flood, HTTP DoS, and Ping of Death, ICMP and UDP rate control from Day#1	
36	The proposed appliance should support OSPF, RIP1/2, BGP2 from Day#1	
37	The proposed solution should support DNSSEC and acts as a DNS proxy, Authoritative DNS, DNS signing from day#1	
38	The proposed Vendor should have their own Cloud based WAF and DDOS as a service for future integration.	
39	The proposed WAF solution should Protect Microservices Based Applications	
40	The proposed WAF solution should support in protecting North-south traffic.	
41	The system must support CISCO ACI "Service Manager Mode"	
42	The WAF should be ICSA Labs Certified	
43	<b>API Security</b>	
44	The proposed WAF solution should support API security to extend WAF protections to vulnerable APIs in the same appliance from Day#1	
45	Proposed API security should support all major forms of authentication mechanisms: <ul style="list-style-type: none"> <li>-OAuth</li> <li>-Open-ID Connect 2.0</li> <li>- SAML</li> <li>- SAML IDP</li> <li>- Client-Certificate</li> <li>- Multi-Factor Authentication – combination of above mechanisms.</li> <li>- OTP: RSA-SecureID, Imprivata OneSign, SafeWord, Gemalto Provita, Nordic SMSPasscode.</li> <li>- Social Authentication/WebAuth – Google/Facebook Auth service.</li> <li>- Traditional: RADIUS, LDAP, TACACS, Local-Auth, Kerberos, NTLM.</li> </ul>	
46	The proposed API security should support Different forms of authorization methods: <ul style="list-style-type: none"> <li>RBAC – Role based access control-- Based on who or which app is accessing the API.</li> <li>CBAC – Content based access control- Based on what resource, content is being accessed</li> </ul>	
47	<b>Management and Analytics</b>	
48	The proposed solution should have dedicated management appliance for centralized analytics from Day#1	
49	The proposed solution has an API which includes all the main features to be automated.	
49	The proposed solution should have a standard integration with Cisco ACI and the device package should available in Cisco DC App Center	

Sr. #	Hardware Specification	Compliance (Yes/No) / Part No.
50	The solution shall provide a health assessment capability (infrastructure analytics) of all deployed appliances in a single dashboard view.	
51	The management solution should provide service level graphs visualizing application servers and network function.	
52	The centralized management solution should support Role-Based Access Control (RBAC) feature to restrict access to management device.	
53	The proposed appliances should web based management and also support login page customization	
54	The proposed centralized management solution should provide real time and historical reports	
55	The proposed centralized management solution should provide Application analytics and infrastructure analytics.	
56	<b>Load Balancing Features (For DR WAF only)</b> <b>Qty: 01</b>	
	The ADC solution must be able to do load balancing for L4-L7 supporting following TCP, UDP, FTP, HTTP, HTTPS, DNS (TCP and UDP), SIP (over UDP), SQL, RDP.	
57	The ADC solution should support load balancing algorithms like Round Robin, Least Packets, Least Bandwidth, Least Connections, Response Time, Hashing (URL, Domain, Source IP, Destination IP), SNMP-provided metric.	
58	The ADC solution should support solid Session persistence based on Source IP, cookie, server, group, SSL session, Token-based, SESSIONID.	
59	The solution should support Layer 7 content switching based on URL, URL Query, URL Wildcard, Domain, Source/ Destination IP, HTTP Header, Custom, HTTP and TCP Payload Values, UDP.	
60	The ADC solution should support Microsoft SQL Server and MySQL based database load balancing.	
61	The proposed solution should support L4 and L7 DOS from Day#1	
62	The ADC solution must have the ability to monitor TCP-based, HTTP-based applications	
63	The ADC solution should support minimum TLS 1.3 encryption protocol From Day#1	
64	The proposed ADC solution should support consolidation of secure remote access infrastructure with one URL	
65	The proposed ADC solution should support SAML 2.0 federated identity to provide single sign-on (SSO) across all applications, whether in a data centre or in a cloud	
66	The proposed ADC solution should support nFactor authentication for all applications	
67	The proposed ADC solution should support Microservices Based Applications	
68	The proposed ADC solution should integrate with Kubernetes/Redhat openshift	
69	The proposed ADC solution should integrate with Venafi for certificate auto management.	
70	The proposed ADC solution should support handling North-south traffic as a Tier#1 Container ingress.	
71	The proposed ADC solution should support Global server load balancing (GSLB) from Day#1	
72	The proposed ADC solution should support following GSLB algorithms based on parameters like site health, geographic proximity, network proximity, connections, bandwidth,	
73	The ADC solution should support front end optimization	
74	The ADC solution should support TCP Multiplexing, buffering	
75	The ADC solution should support IPv6 from Day#1	
76	The ADC solution should support IPv4/IPv6 Network Address Translation (NAT) from Day#1	
77	The system must support CISCO ACI integration with All ADC features supported including but not limited to: GSLB, Compression, WAF, Cache Redirection, AAA, SSLVPN, DataStream, Content-Switching	
78	The system must support CISCO ACI "Service Manager Mode"	
79	The system must support TLS 1.3 RFC standard in GA builds	
80	The system must be able to score an A+ from SSL labs with SSL profile	

**Related Services:**

1. Successful Bidder / Supplier will be responsible for Assembly, initialization, installation, configuration and other related tasks regarding to supplied equipment.
2. Supplier will remain responsible till expiry of warranties for any change/amendment in design, configuration of equipment, which doesn't required any further hardware or licensing.
3. Supplier will remain responsible for upgradation of firmware, IOS version and software of equipment supplied till expiry of the contract.
4. Replacement of faulty parts will be required in Next Business Day (NBD).
5. Supplier must provide comprehensive 5-day training to PLRA staff by the highly professional skilled Certified resource (s).

**Lot-6 Procurement of Storage Area Network (SAN) for Primary and DR site**  
**Quantity: 02**

Sr. #	Features Requirement:	Compliance (Yes/No) / Part No.
1	<p><b>Architecture:</b>                      The proposed array should be an enterprise class all flash storage with active-active multi-controller/node scale-up and scale-out architecture. The array should be scalable to at least 8 active-active storage controllers/nodes. At least 2 Controllers/nodes with each controller with intel based dual socket CPU, 14 core or equivalent each should be provisioned in the current requirement. Storage systems should have native functionality/intelligence to provide workload placement and load balancing recommendations.</p>	
2	<p><b>NVMe:</b>                      The proposed array should have NVMe multi-controller architecture. The array should be able to deliver NVMe performance, and preferably should also be SCM (Storage Class Memory) ready for realizing even further reductions in overhead and latency.</p>	
3	<p><b>Unified Storage:</b>                      The proposed array should be a unified storage supporting block, file and vVol services natively.</p>	
4	<p><b>No Single Point of Failure:</b>                      The proposed array should have 99.9999% reliability with No Single Point of Failure (SPOF). All the hardware and software components should be redundant including power supply, fans, batteries etc. The proposed array must support non-disruptive replacement of failed hardware component, firmware/microcode upgrades and hardware upgrades.</p>	
5	<p><b>DRAM Cache:</b>                      The proposed storage should be scalable to 8TB of DRAM Cache. The proposed array must protect data in cache during a manual power down or an unexpected power outage by destaging the data in cache to flash modules. For the current requirement, a minimum of 512GB RAM must be provisioned across all controllers.</p>	
6	<p><b>Multiprotocol Support:</b>                      The proposed array should support FC, iSCSI &amp; GigE connectivity natively and should not require external hardware to support these protocols and connectivity.</p>	
7	<p><b>Front End Ports:</b>                      The proposed array should scale to at least 48 front end ports to provide scalable and dedicated connectivity to hosts and for remote replication. For the purpose of the current requirement, 8 x 32Gbps FC and 4 x 10GbE iSCSI ports per Controller should be provisioned with the system (including required SFPs)</p>	
8	<p><b>Capacity &amp; Performance Requirement:</b>                      The proposed array should be configured with 100TB Usable and addressable effective capacity of 400TB using NVMe SSDs with RAID 5 configuration and should be able to deliver at least 150K IOPS (8K block size, 85% Read) with sub-millisecond response time. Mentioned performance numbers should be achieved with data reduction techniques like Compression and deduplication. OEM must commit with official Standard Guarantee provision of at least 400 TB effective capacity on all optimizable data sets.</p>	

Sr. #	Features Requirement:	Compliance (Yes/No) / Part No.
9	<p><b>Scalability:</b> The proposed storage must be scalable to minimum addressable effective capacity of 3PB using NVMe drives and 1M IOPS with addition of more nodes/controllers. The proposed storage must support at least 84 NVMe drives across multiple nodes/controllers.</p>	
10	<p><b>Flash Drives:</b> The proposed array must support the NVMe drives. Supported NVMe flash drive has various sizes like 7.6TB and 15.36TB. Proposed storage should also support growing capacity by single drive increment for supporting granular upgrades.</p>	
11	<p><b>Scalability File System:</b> Proposed storage solution must support creating multiple NAS servers for tenant isolation with each file system scalable up to 256TB.</p>	
12	<p><b>Data Efficiency:</b> The proposed array should support enterprise class data services including - Thin Provisioning, Inline Compression &amp; Deduplication, Replication and Snapshot. Data reduction must be supported on block (FC, iSCSI) and file (CIFS, NFS) data. Provided system must ensure data reduction of at least 3.5:1 or above on all optimizable data sets.</p>	
13	<p><b>Native GiGE Ports for Remote Replication:</b> The proposed array shall be able to provide native 10 GigE connectivity to the LAN/WAN for the purpose of remote replication.</p>	
14	<p><b>Platform Support:</b> The proposed system should support popular operating system platforms such as Windows, HP-UX, Linux, Solaris etc.</p>	
15	<p><b>Virtualized Environment:</b> Proposed storage solution should support VMware VAAI, SRM, VASA, and VMware cloud foundation for multi-cloud data mobility. Detailed document to be provided for the same.</p>	
16	<p><b>Non-Disruptive Migration:</b> The proposed array should have the capability to non-disruptively data migration.</p>	
17	<p><b>Local Replication for Granular Recovery:</b> The proposed array must have capability to create up to 255 snapshots of a single source volume for granular recovery. Should have the capability to schedule creation and deletion of snapshots.</p>	
18	<p><b>Local Replication Performance &amp; Space Efficiency:</b> The proposed array must have capability to mount space-efficient snapshots or clones of single source volume for various purposes like reporting, backup, test &amp; dev etc. This space-efficient snapshot solution should minimum impact on production volumes.</p>	
19	<p><b>Local Replication Refresh Production Copy:</b> The proposed array local replication solution should support incremental re-sync of source volumes to clones.</p>	
20	<p><b>Remote Replication:</b> Should support replication of data across metro and global distances for disaster recovery. Required licenses for doing replication must be provided. If separate FCIP routers are required for asynchronous replication, then the same should be included in the BOM (2 Nos per site). Offered storage should support consistency groups or equivalent technology to keep the write order consistency.</p>	
21	<p><b>Storage Management Software:</b> The proposed array should be supplied with native Storage management software with Web based GUI capable of generating customized reports, real time monitoring, historical performance data for analysis and trending, capacity utilization monitoring.</p>	
22	<p><b>Cloud Based Monitoring:</b> Proposed solution should also have cloud-based monitoring and management tool.</p>	
23	<p><b>Licenses:</b> The proposed storage system must support thin-provisioning, Data reduction (Compression &amp; deduplication), management, Storage Analytics, Snapshots, clones and Remote Replication. Licenses for all these features should be factored from day1 for full supported capacity.</p>	

Sr. #	Features Requirement:	Compliance (Yes/No) / Part No.
24	<b>Warranty:</b> The vendor should provide three (03) years warranty with 24 x 7 x 365 support with 4 hours SLA response time. The vendor should submit the proof of OEM's local logistics center. OEM should also have a local office for an emergency contact point.	
25	<b>Data Replication / Migration:</b> Supplier will be responsible for data replication / migration from existing storages to the new one, in coordination with purchaser and according to guidelines of principal.	
26	<b>Antivirus Support (NAS):</b> Vendors Should also provide Market well known Anti-virus Solution i.e (Kaspersky, Symantec, McAfee, TrendMicro) etc. to protect the Storage.	

**Related Service:**

- Supplier will arrange 1x online OEM based training for PLRA staff against the quoted product.
- All assembly, cabling & proper tagging, installation, initialization, Zoning and configuration will be responsibility of supplier. Further, supplier will also be responsible in improving design and configuration of the storages during the contract period.
- Supplier will be responsible for smooth and seamless replication of all workloads, to achieve this objective supplier's certified storage team will involve in following tasks (but not limited to):
  - Data will be replicated from Dell EMC VNX 5400 and Dell EMC Unity 400.
  - Developing a Data Replication strategy, specially for clustered shared volumes
  - Storage Implementation Design
  - Replication Execution Plan
  - Establishing reliable connection between existing sources (VMs) to new targets
- Supplier will configure real time (asynchronous) data replication between primary and DR storage nodes.
- Storage best practices of data deduplication and compression be configured as per principal best practices.
- Principal of the storage will be on-board during data migration/replication for immediate involvement in case of any issue. Further, it would also be responsibility of partner to engage Dell EMC professional services for assistance in data migration/replication from existing infrastructure.
- Once the migration is complete, ensure there are no connectivity problems with source and target systems. The goal is to ensure all data migrated/replicated is consistent, complete, secure, and in the proper location and format. To verify this conduct system, volume, web-based application and batch application tests to determine data supports processes in the new system.



**Lot-7 Procurement of Privileged Access Management (PAM)**

Sr. #	REQUIRED MANDATORY FEATURES	Compliance (Yes/No) / Part No.
1	Manage shared privileged accounts: The solution must provide centralized privileged user management with all the features on a single central server. Ability to privileges, visibility into list of admins, ability to query a particular user's access (what do they have access to), ability to authorize privileged account.	
2	Monitor privileged accounts: The solution should provide with session recording/replay support and archival management of stored recordings.	
3	Solution must have the ability to integrate with MS Active Directory.	
4	Assets Discovery: The proposed solution should provide auto discovery of assets and accounts, privileged accounts in particular for a given environment, automatically discover and onboard local accounts on Windows, Unix, Linux Systems. Automatically discover and onboard Active Directory accounts (Such as administrative and service accounts) Automatically discover and onboard of local accounts on Database Systems.	
5	Audits privileged accounts: Offers search and replay capabilities.	
6	Password management: Current and historical reporting on passwords across the environment; Filter password report by asset and role.	
7	Password randomizing: Ability to create random passwords. Current and historical reporting on passwords across the environment; Filter password report by asset and role.	
8	Password recovery: Solution must have strong jail break or break glass capability.	
9	Platform integration: Can integrate with Windows, Linux, Solaris and have the ability to combine and support existing access policies, separation of duties, etc.	
10	Solution must have the capability to forward logs to major SIEM Solutions.	
11	Must support various enterprise device such as network devices, security appliances etc.	
12	Must be able to continuously track and report all the privilege identities, system, and accounts interdependencies on the network.	
13	The product should support session management for Web based applications / Cloud Applications. Also, for physical and virtual systems, hypervisors, databases, middleware, line-of-business applications, and hardware devices. Must have session management capability for Dell EMC Storage Solution (VNX, Unity, Networker Backup utility), Microsoft Hyper-V	
14	Solution must provide its own approval-based workflow. The solution must support different configurations of approvals e.g. "4-eyes principle" when trying to establish a session, including automatic email notification support.	
15	Solution should have the capability to manage credentials that have dependencies, for example Windows Services, Scheduled Tasks and Application Pools?	
16	The solution must provide the ability to monitor and record Privileged Sessions?	
17	The Solution should support RADIUS protocol for MFA integration	
18	Separate database license should not be required for PAM. It must be application driven database and doesn't need any human intervention to manage it OR In case separate Database is needed then its price must be included in product cost.	
19	Solution should provide full traceability around the usage of privileged accounts with the purpose of defining accountability	
20	The proposed solution should have functionality to integrate with third party Multi Factor authentication solutions	
21	The solution should have High Availability. Must provide two separate appliances, one for PR and one for DR.	
22	The proposed solution shall support for high redundancy or DR architecture even when deployed on different network segments or locations.	
23	The password vault must be highly reliable, the switch over to HA/DR should be seamless without manual intervention, and provisions should be available to recover credentials securely in case of	

Sr. #	REQUIRED MANDATORY FEATURES	Compliance (Yes/No) / Part No.
	catastrophic failures.	
24	Data replication between different network segments shall be performed natively without the need for external solution or infrastructure	
25	PAM License Requirements: 50 Users/ 100 Assets, License must be perpetual.	
26	PAM Solution must be ON Premises, Cloud based solutions are not acceptable.	
27	MFA solution to be integrated with PAM (Technical Requirements)	
28	The Solution must support push notification to approve	
29	The Solution must support both Android, IOS mobile phones and smart watches	
30	The Solution must provide SSO.	
31	The Solution must have these features as 2FA: Security code, OTP, SMS and Call back or Push notification	
32	The solution must have the capability to act like a radius server.	
33	The solution must have "Remember the device capability" for the user to login once on the same application for some time and not to ask continues push notification	
34	The solution Should be able to integrate with Active Directory on prem and should also support the Azure Active Directory	
35	The solution should support Self-service portal for user for device management	
36	The Solution should have the licensing of at least 50 Users	

**Related Services:**

- Vendor must be responsible for Solution deployment, installation & configuration on Principal’s best deployment/Practices model.
- Vendor must deliver OEM Authorized training along with OEM curriculum at Vendor’s premises for 3 PLRA resources. All training related arrangements (boarding & lodging) shall be managed by vendor.
- Vendor must deliver OEM Authorized Professional Services for deployment.
- Further, Vendor shall provide optionally annual maintenance cost of PAM solution in the financial bid (For next two Years) after expiry of the licenses. **This cost will not be part of financial Bid.**

**Lot-8 Procurement of Active Directory Security Management & AD Tiering Solution**

<b>Sr. #</b>	<b>Required Mandatory Features:</b>	<b>Compliance (Yes/No) / Part No.</b>
1.	The solution should be capable of automatically discovering present domain of domain controller	
2.	The solution should be capable of discovering the specified domain of domain controller	
3.	The solution should be capable to handle more than one domain controller and edit list of already configured Domain Controllers	
4.	The solution should provide the different privileged accounts for different types of access and can delegate appropriate permission in the native Active Directory	
5.	The solution can configure Active Directory Terminal Services attributes from a much simpler interface than AD native tools	
6.	The solution should restrict the reports to logon activities, account status or deleted accounts only through the admin account, should have 180+ pre-packed AD reports	
7.	The solution can generate reports for regulatory compliance like SOX, GLBA, PCI-DSS, HIPAA but no limited to these	
8.	The solution should be capable of create, delete and manage user accounts of Active Directory	
9.	The solution can be used to reset the user's passwords and force password change at the next logon from a single web-based console	
10.	The solution can be used for a non-administrative user or a group to create GPOs (and thus implicitly grant them the ability to manage the GPO they've created)	
11.	The solution should support windows 7, 8, 8.1 and 10 platforms at end points and Windows Server 2008, 2008 R2, 2012, 2012 R2, 2016 and 2019 at Server end	
12.	The solution should support Google Chrome, Mozilla Firefox, Microsoft Edge and Internet Explorer 8 and above	
13.	The solution should support MS SQL as database	
14.	The solution should be accessible through iOS and android apps	
15.	The solution should have email and SMS notification built-in for management action execution	
16.	The solution should establish checkpoints to prevent unauthorized changes in active directory	
17.	The solution should have capability to automatically assign tickets to the technicians	
18.	The solution should grant rights to the user's manager to approve the workflow requests	
19.	The solution should automate critical routines such as cleaning up inactive user's accounts, bulk user provisioning and de-provisioning using CSV file	
20.	Licensing Requirement: Perpetual License, For 1 Domain (Unrestricted Objects) with 2 Technicians	

**Related Services:**

- Vendor will be responsible for complete deployment of solution as per principle best practice model.
- Vendor will be responsible for providing support and troubleshooting for the period of contract.
- Vendor will be responsible for Design, Deployment, monitor, management, Troubleshooting and On-going support of quoted software solution as per principle best practices model for the period of contract (1-Year).
- Vendor will implement **Microsoft Local Administrator Password Solution (LAPS)**
- Vendor will implement **Microsoft's Active Directory Tier Administrative Model**
  - For implementing MS AD Tier model and LAPS, vendor will establish a staging / UAT environment. All the testing related to PLRA business application(s) will be done in this environment before implementation in production. Upon successful implementation of both services in staging environment and approval of same from PLRA IT management, both Tiering Model and LAPS shall be implemented in production environment.

- Service provider will develop a strategy to confirm/assure seamless and smooth implementation of LAPS and Tiering model without interrupting customer core services.
  - Service provider will implement both of the activities Tiering Model and LAPS as per Microsoft best practices and guide lines.
  - Vendor must perform following activities
    - OU structure creation for AD tiered administration.
    - Groups and accounts creation.
    - GPO creation.
    - Security delegation creation.
    - RDP access restriction of AD to be allowed only from Tier0 machines by Tier0 users.
    - Moving of servers, users and groups in appropriate tiers
- 
- Vendor will evaluate thoroughly and remove all security weaknesses of Active Directory and Exchange server (Enterprise 2016, On premises) along with configuration & management. Possible shortcomings and misconfigurations be refined and do necessary enhancement in the implementation according to industry best practices and standards.
  - Vendor shall remain responsible for L2 & L3 support for supplied Software, Microsoft Active Directory & Exchange server for a period of 01 year.

# Part-I

## Section V. Bidding Forms

### Bid Submission Form

The Bidder must prepare the Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and address.

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

Invitation for Bid No.: \_\_\_\_\_

To: Punjab Land Records Authority, Govt. of Punjab

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders;
- (b) We meet the eligibility requirements and have no conflict of interest in accordance with ITB 13, & ITB 14;
- (c) We offer to supply in conformity with the Bidding Documents and in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods: [insert a brief description of the Goods and Related Services];
- (d) Our bid shall be valid for a period of 120 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;
- (f) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process.
- (g) We, including any of our subcontractors or suppliers for any part of the contract, have not been blacklisted by any Government / Semi-Government organization.
- (h) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract: [insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]

Name of Recipient	Address	Reason	Amount


(If none has been paid or is to be paid, indicate “none.”)

- (i) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (j) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (k) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption

Name of the Bidder\* [insert complete name of person signing the Bid]

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

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

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

Date signed \_[insert date of signing] day of [insert month], [insert year]

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

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

## 2. Manufacturer's Authorization Form

[See Clause 13.3 (a) of the Instructions to Bidders.]

To: *[name of the Purchaser]*

WHEREAS *[name of the Manufacturer]* who are established and reputable manufacturers of *[name and/or description of the goods]* having factories at *[address of factory]*

do hereby authorize *[name and address of Agent]* to submit a bid, and subsequently negotiate and sign the Contract with you against IFB No. *[reference of the Invitation to Bid]* for the above goods manufactured by us.

We hereby extend our full guarantee and warranty as per Clause 15 of the General Conditions of Contract for the goods offered for supply by the above firm against this Invitation for Bids.

---

*[signature for and on behalf of Manufacturer]*

*Note:* This letter of authority should be on the letterhead of the Manufacturer and should be signed by a person competent and having the power of attorney to bind the Manufacturer. It should be included by the Bidder in its bid.

### 3. Price Schedules

Sr.	Item/Description	Brand/Model/Origin	Qty	Unit Price (Rs.)	Total Amount (Rs.)
1.	Warranty & Support Renewal of Cisco Routers, Switches, Firewalls and Email Security Solution		As per BOQ		
2.	Warranty & Support Renewal of Dell EMC Networker and SAN Switches		As per BOQ		
3.	Procurement of Firewalls				
4.	Procurement of Backup Solution				
5.	Procurement of Web Application Firewalls (WAF) and API Protection Qty: 03				
6.	Procurement of SAN Storages Qty:02				
7.	Procurement of Privilege Access Management				
8.	Procurement of AD Management Tool and Implementation of AD Tiering a. Software Cost b. Services Cost				
<b>TOTAL AMOUNT (Rs.)</b>					

**Note:**

- 1. In case of discrepancy between unit price and total, the unit price shall prevail.**
- 2. The quoted prices must include all applicable taxes including GST/PST etc. and delivery charges at destination.**
- 3. Contracts will be signed on stamp papers according to below mentioned rates as per Section 22(A)(b) of Schedule-I of Stamp Act 1899.**



# Part-II

## Section I. Contract Forms

### 1. Contract Form

THIS AGREEMENT made the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ between *[name of Purchaser]* (hereinafter called “the Purchaser”) of the one part and *[name of Supplier]* of (hereinafter called “the Supplier”) of the other part:

WHEREAS the Purchaser invited bids for certain goods and ancillary services, viz., *[brief description of goods and services]* and has accepted a bid by the Supplier for the supply of those goods and services in the sum of *[contract price in words and figures]* (hereinafter called “the Contract Price”).

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement 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 Agreement, viz.:
  - (a) the Bid Form and the Price Schedule submitted by the Bidder;
  - (b) the Schedule of Requirements;
  - (c) the Technical Specifications;
  - (d) the General Conditions of Contract;
  - (e) the Special Conditions of Contract; and
  - (f) the Purchaser’s Notification of Award.
3. In consideration of the payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby covenants with the Purchaser to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract
4. The Purchaser hereby covenants to pay the Supplier in consideration of the provision of the goods and services 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 Agreement to be executed in accordance with their respective laws the day and year first above written.

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Purchaser)

Signed, sealed, delivered by \_\_\_\_\_ the \_\_\_\_\_ (for the Supplier)

## 2. Performance Security Form

To:

[*Client Address*]

WHEREAS [*name of Supplier*] (hereinafter called “the Supplier”) has undertaken, in pursuance of Contract No. [*reference number of the contract*] dated \_\_\_\_\_ 20\_\_\_\_ to supply [*description of goods and services*] (hereinafter called “the Contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Supplier shall furnish you with a bank guarantee by a reputable bank for the sum specified therein as security for compliance with the Supplier’s performance obligations in accordance with the Contract.

AND WHEREAS we have agreed to give the Supplier a guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the Supplier, 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 Supplier 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 \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_\_.

Signature and seal of the Guarantors

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[*name of bank or financial institution*]

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[*address*]

---

[*date*]

## **Part-II**

### **Section II. General Conditions of Contract**

#### **1. Definitions**

1.1 In this Contract, the following terms shall be interpreted as indicated:

- (a) “The Contract” means the agreement entered into between the Purchaser and the Supplier, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- (b) “The Contract Price” means the price payable to the Supplier under the Contract for the full and proper performance of its contractual obligations.
- (c) “The Goods” means all of the equipment, machinery, and/or other materials which the Supplier is required to supply to the Purchaser under the Contract.
- (d) “The Services” means those services ancillary to the supply of the Goods, 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 Supplier covered under the Contract.
- (e) “GCC” means the General Conditions of Contract contained in this section.
- (f) “SCC” means the Special Conditions of Contract.
- (g) “The Purchaser” means the organization purchasing the Goods, as named in SCC.
- (h) “The Purchaser’s country” is Islamic Republic of Pakistan.
- (i) “The Supplier” means the individual or firm supplying the Goods and Services under this Contract.
- (j) “The Project Site,” where applicable, means the place or places named in SCC.
- (k) “Day” means calendar day.

- 2. Application** 2.1 These General Conditions shall apply to the extent that they are not superseded by provisions of other parts of the Contract.
- 3. Country of Origin** 3.2 For purposes of this Clause, “origin” means the place where the Goods were mined, grown, or produced, or from which the Services are supplied. Goods are produced when, through manufacturing, processing, or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 3.3 The origin of Goods and Services is distinct from the nationality of the Supplier.
- 4. Standards** 4.1 The Goods supplied under this Contract shall conform to the standards mentioned in the Technical Specifications, and, when no applicable standard is mentioned, to the authoritative standards appropriate to the Goods’ country of origin. Such standards shall be the latest issued by the concerned institution.
- 5. Use of Contract Documents and Information; Inspection and Audit** 5.1 The Supplier shall not, without the Purchaser’s prior written consent, disclose the Contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the Purchaser in connection therewith, to any person other than a person employed by the Supplier in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The Supplier shall not, without the Purchaser’s prior written consent, make use of any document or information enumerated in GCC Clause 5.1 except for purposes of performing the Contract.
- 5.3 Any document, other than the Contract itself, enumerated in GCC Clause 5.1 shall remain the property of the Purchaser and shall be returned (all copies) to the Purchaser on completion of the Supplier’s performance under the Contract if so required by the Purchaser.
- 5.4 The Supplier shall permit the Procuring Agency to inspect the Supplier’s accounts and records relating to the performance of the Supplier and to have them audited by auditors appointed by the Procuring Agency, if so required by the Procuring Agency.

- 6. Patent Rights** 6.1 The Supplier shall indemnify the Purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.
- 7. Performance Security** 7.1 Within 14 days of receipt of the notification of Contract award, the successful Bidder shall furnish to the Purchaser the performance security in the amount specified in SCC.
- 7.2 The proceeds of the performance security shall be payable to the Purchaser as compensation for any loss resulting from the Supplier's failure to complete its obligations under the Contract.
- 7.3 The performance security shall be denominated in the currency of the Contract acceptable to the Purchaser and shall be in one of the following forms:
- (a) a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in Pakistan, in the form provided in the bidding documents or another form acceptable to the Purchaser; or
  - (b) a cashier's or certified check.
- 7.4 The performance security will be discharged by the Purchaser and returned to the Supplier not later than thirty (30) days following the date of completion of the Supplier's performance obligations under the Contract, including any warranty obligations, unless specified otherwise in SCC.
- 8. Inspections and Tests** 8.1 The Purchaser or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Contract specifications at no extra cost to the Purchaser. SCC and the Technical Specifications shall specify what inspections and tests the Purchaser requires and where they are to be conducted. The Purchaser shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.
- 8.2 The inspections and tests may be conducted on the premises of the Supplier or its subcontractor(s), at point of delivery, and/or at the Goods' final destination. If conducted on the premises of the Supplier or its subcontractor(s), all reasonable facilities and assistance, including access to drawings and production data, shall be furnished to the inspectors at no charge to the Purchaser.

8.3 Should any inspected or tested Goods fail to conform to the Specifications, the Purchaser may reject the Goods, and the Supplier shall either replace the rejected Goods or make alterations necessary to meet specification requirements free of cost to the Purchaser.

8.4 The Purchaser's right to inspect, test and, where necessary, reject the Goods after the Goods' arrival in Pakistan shall in no way be limited or waived by reason of the Goods having previously been inspected, tested, and passed by the Purchaser or its representative prior to the Goods' shipment from the country of origin.

8.5 Nothing in GCC Clause 8 shall in any way release the Supplier from any warranty or other obligations under this Contract.

## **9. Packing**

9.1 The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified in SCC, and in any subsequent instructions ordered by the Purchaser.

## **10. Delivery and Documents**

10.1 Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in the Schedule of Requirements. The details of shipping and/or other documents to be furnished by the Supplier are specified in SCC.

10.2 Documents to be submitted by the Supplier are specified in SCC.

## **11. Insurance**

11.1 The Goods supplied under the Contract shall be delivered duty paid (DDP) under which risk is transferred to the buyer after having been delivered, hence insurance coverage is sellers responsibility.

**12. Transportation**

12.1 The Supplier is required under the Contract to transport the Goods to a specified place of destination within the Purchaser's country, transport to such place of destination in the Purchaser's country, including insurance and storage, as shall be specified in the Contract, shall be arranged by the Supplier, and related costs shall be included in the Contract Price.

**13. Incidental Services**

13.1 The Supplier may be required to provide any or all of the following services, including additional services, if any, specified in SCC:

- (a) performance or supervision of on-site assembly and/or start-up of the supplied Goods;
- (b) furnishing of tools required for assembly and/or maintenance of the supplied Goods;
- (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;
- (d) performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- (e) training of the Purchaser's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

13.2 Prices charged by the Supplier for incidental services, if not included in the Contract Price for the Goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged for other parties by the Supplier for similar services.

**14. Spare Parts**

14.1 As specified in SCC, the Supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- (a) such spare parts as the Purchaser may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under the Contract; and

- (b) in the event of termination of production of the spare parts:
  - (i) advance notification to the Purchaser of the pending termination, in sufficient time to permit the Purchaser to procure needed requirements; and
  - (ii) following such termination, furnishing at no cost to the Purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

## **15. Warranty**

- 15.1 The Supplier warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract. The Supplier further warrants that all Goods supplied under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the Purchaser's specifications) or from any act or omission of the Supplier, that may develop under normal use of the supplied Goods in the conditions prevailing in the country of final destination.
- 15.2 This warranty shall remain valid as specified in the SCC.
- 15.3 The Purchaser shall promptly notify the Supplier in writing of any claims arising under this warranty.
- 15.4 Upon receipt of such notice, the Supplier shall, within the period specified in SCC and with all reasonable speed, repair or replace the defective Goods or parts thereof, without costs to the Purchaser.
- 15.5 If the Supplier, having been notified, fails to remedy the defect(s) within the period specified in SCC, within a reasonable period, the Purchaser may proceed to take such remedial action as may be necessary, at the Supplier's risk and expense and without prejudice to any other rights which the Purchaser may have against the Supplier under the Contract.

## **16. Payment**

- 16.1 The method and conditions of payment to be made to the Supplier under this Contract shall be specified in SCC.
- 16.2 The Supplier's request(s) for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as



appropriate, the Goods delivered and Services performed, and by documents submitted pursuant to GCC Clause 10, and upon fulfillment of other obligations stipulated in the Contract.

16.3 Payments shall be made promptly by the Purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the Supplier.

16.4 The currency of payment is Pak. Rupees.

**17. Prices**

17.1 Prices charged by the Supplier for Goods delivered and Services performed under the Contract shall not vary from the prices quoted by the Supplier in its bid, with the exception of any price adjustments authorized in SCC or in the Purchaser's request for bid validity extension, as the case may be.

**18. Change Orders**

18.1 The Purchaser may at any time, by a written order given to the Supplier pursuant to GCC Clause 31, make changes within the general scope of the Contract in any one or more of the following:

(a) drawings, designs, or specifications, where Goods to be furnished under the Contract are to be specifically manufactured for the Purchaser;

(b) the method of shipment or packing;

(c) the place of delivery; and/or

(d) the Services to be provided by the Supplier.

18.2 If any such change causes an increase or decrease in the cost of, or the time required for, the Supplier's performance of any provisions under the Contract, an equitable adjustment shall be made in the Contract Price or delivery schedule, or both, and the Contract shall accordingly be amended. Any claims by the Supplier for adjustment under this clause must be asserted within thirty (30) days from the date of the Supplier's receipt of the Purchaser's change order.

**19. Contract Amendments**

19.1 Subject to GCC Clause 18, no variation in or modification of the terms of the Contract shall be made except by written amendment signed by the parties.

**20. Assignment**

20.1 The Supplier shall not assign, in whole or in part, its obligations to perform under this Contract, except with the Purchaser's prior

written consent.

- 21. Subcontracts**
- 21.1 The Supplier shall notify the Purchaser in writing of all subcontracts awarded under this Contract if not already specified in the bid. Such notification, in the original bid or later, shall not relieve the Supplier from any liability or obligation under the Contract.
- 21.2 Subcontracts must comply with the provisions of GCC Clause 3.
- 22. Delays in the Supplier's Performance**
- 22.1 Delivery of the Goods and performance of Services shall be made by the Supplier in accordance with the time schedule prescribed by the Purchaser in the Schedule of Requirements.
- 22.2 If at any time during performance of the Contract, the Supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the Goods and performance of Services, the Supplier shall promptly notify the Purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the Supplier's notice, the Purchaser shall evaluate the situation and may at its discretion extend the Supplier's time for performance, with or without liquidated damages, in which case the extension shall be ratified by the parties by amendment of Contract.
- 22.3 Except as provided under GCC Clause 25, a delay by the Supplier in the performance of its delivery obligations shall render the Supplier liable to the imposition of liquidated damages pursuant to GCC Clause 23, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of liquidated damages.
- 23. Liquidated Damages**
- 23.1 Subject to GCC Clause 25, if the Supplier fails to deliver any or all of the Goods or to perform the Services within the period(s) specified in the Contract, the Purchaser shall, without prejudice to its other remedies under the Contract, deduct from the Contract Price, as liquidated damages, a sum equivalent to the percentage specified in SCC of the delivered price of the delayed Goods or unperformed Services for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in SCC. Once the maximum is reached, the Purchaser may consider termination of the Contract pursuant to GCC Clause 24.

**24. Termination  
for Default**

24.1 The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate this Contract in whole or in part:

- (a) if the Supplier fails to deliver any or all of the Goods within the period(s) specified in the Contract, or within any extension thereof granted by the Purchaser pursuant to GCC Clause 22; or
- (b) if the Supplier fails to perform any other obligation(s) under the Contract.
- (c) if the Supplier, in the judgment of the Purchaser has engaged in corrupt or fraudulent practices in competing for or in executing the Contract.

For the purpose of this clause:

“corrupt practice” means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

“fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Procuring Agency, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Procuring Agency of the benefits of free and open competition.

24.2 In the event the Purchaser terminates the Contract in whole or in part, pursuant to GCC Clause 24.1, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Services similar to those undelivered, and the Supplier shall be liable to the Purchaser for any excess costs for such similar Goods or Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

**25. Force Majeure**

25.1 Notwithstanding the provisions of GCC Clauses 22, 23, and 24, the Supplier shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

25.2 For purposes of this clause, “Force Majeure” means an event beyond the control of the Supplier and not involving the Supplier’s fault or negligence and not foreseeable. Such events may include, but are not restricted to, acts of the Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.

25.3 If a Force Majeure situation arises, the Supplier shall promptly notify the Purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

**26. Termination  
for Insolvency**

26.1 The Purchaser may at any time terminate the Contract by giving written notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

**27. Termination  
for  
Convenience**

27.1 The Purchaser, by written notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser’s convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.

27.2 The Goods that are complete and ready for shipment within thirty (30) days after the Supplier’s receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:

- (a) to have any portion completed and delivered at the Contract terms and prices; and/or
- (b) to cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Services and for materials and parts previously procured by the Supplier.

**28. Resolution of  
Disputes**

28.1 The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or

dispute arising between them under or in connection with the Contract.

28.2 If, after thirty (30) days from the commencement of such informal negotiations, the Purchaser and the Supplier have been unable to resolve amicably a Contract dispute, either party may require that the dispute be referred for resolution to the formal mechanisms specified in SCC. These mechanisms may include, but are not restricted to, conciliation mediated by a third party, adjudication in an agreed and/or arbitration.

**29. Governing Language**

29.1 The Contract shall be written in the language specified in SCC. Subject to GCC Clause 30, the version of the Contract written in the specified language shall govern its interpretation. All correspondence and other documents pertaining to the Contract which are exchanged by the parties shall be written in the same language.

**30. Applicable Law**

30.1 The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan.

**31. Notices**

31.1 Any notice given by one party to the other pursuant to this Contract shall be sent to the other party in writing or by fax and confirmed in writing to the other party's address specified in SCC.

31.2 A notice shall be effective when delivered or on the notice's effective date, whichever is later.

**32. Taxes and Duties**

32.1 Supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

## **Part-II**

### **Section III. 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.

#### **1. Definitions (GCC Clause 1)**

GCC 1.1 (g)—The Purchaser is: Punjab Land Records Authority

GCC 1.1 (h)—The Purchaser's country is: Islamic Republic of Pakistan

GCC 1.1 (i)—The Supplier is: [Detail]

GCC 1.1 (j)—The Project Site is: [Detail]

#### **2. Country of Origin (GCC Clause 3)**

Bidder will clearly mention origin of goods.

#### **3. Performance Security (GCC Clause 7)**

GCC 7.1—The amount of performance security, as a percentage of the Contract Price, shall be 5% (Five per cent) in the shape of pay order, demand draft, call deposit or non-recourse, irrevocable and unconditional bank guarantee from scheduled bank of Pakistan on the prescribed format attached with the bidding documents.

#### **4. Inspections and Tests (GCC Clause 8)**

GCC 8.6—

Inspection and tests prior to delivery of goods and at final acceptance are:-

- i) For being Brand New (Certificate from supplier)
- ii) For Physical Fitness having No Damages (Certificate from supplier)
- iii) For the Country of Origin as quoted by the Supplier (Certificate from Supplier /manufacturer)
- iv) For conformance to specifications/performance parameters, through inspection (Inspection Report by PLRA representative)
- v) Delivery Challan and/or installation report acknowledged by PLRA representative.

## **5. Delivery and Documents (GCC Clause 10)**

GCC 10.3— Upon shipment, the Supplier shall notify the Purchaser the full details of the shipment, including Contract number, description of Goods, quantity and usual transport document. The Supplier shall mail the following documents to the Purchaser:

- (i) Copies of the Supplier's invoice showing Goods' description, quantity, unit price, and total amount;
- (ii) copies of the usual transport document (for example, a negotiable bill of lading, a non-negotiable sea waybill, an inland waterway document, an air waybill, a railway consignment note, a road consignment note, or a multimodal transport document) which the buyer may require to take the goods; (where applicable)
- (iii) Copies of the packing list identifying contents of each package;
- (iv) Manufacturer's or Supplier's Valid Warranty Certificate;
- (v) Inspection Certificate issued by the Nominated Inspection Agency (if any),
- (vi) Certificate of Origin.

## **6. Insurance (GCC Clause 11)**

GCC 11.1— The Goods supplied under the Contract shall be Delivered Duty Paid (DDP) under which risk is transferred to the Buyer after having been delivered. Hence insurance coverage is seller's responsibility. Since the Insurance is seller's responsibility they may arrange appropriate coverage.

## **7. Incidental Services (GCC Clause 13)**

GCC 13.1—Incidental services to be provided are:

The rate must include cost for all kinds of labor, inputs and material required for above, and all applicable government taxes and levies. In case a separate rate is not provided by the bidder for the above items, it shall be deemed to have been covered in the overall quoted cost.

## **8. Warranty & Support (GCC Clause 15)**

The period of validity of the Warranty shall be "Comprehensive" and "On Site" for all Lots as given below. The warranty will be considered after the equipment has been delivered to and accepted at the final destination.

<b>Lot #</b>	<b>Description</b>	<b>Warranty &amp; Support Duration</b>
Lot-1	Warranty & Support Renewal of Cisco Routers, Switches, Firewalls	For a period of 03 years or till the end of product support, whichever comes/meets first on each and every component. However, for end-of support components supplier will remain responsible for replacement of faulty part with adequate replacement.
Lot-2	Warranty & Support Renewal of Dell EMC Networker, SAN Switches	For a period of 03 years or till the end of product support, whichever comes/meets first on each and every component. However, for end-of support components supplier will remain responsible for replacement of faulty part with adequate replacement.
Lot-3	Procurement of Firewalls	03 Years
Lot-4	Procurement of Backup Appliance	03 Years
Lot-5	Procurement of Web Application Firewalls (WAF)	03 Years
Lot-6	Procurement of SAN Storages	03 Years
Lot-7	Procurement of Privilege Access Management	01 Year
Lot-8	Procurement of AD Management Tool and Implementation of AD Tiering	01 Year

The period for repair or replacement of faulty parts or components shall be: Next Business Day (NBD) “**on site**” & “**Comprehensive**”.

The Supplier shall, in addition, comply with the performance and/or consumption guarantees specified under the Contract. If, for reasons attributable to the Supplier, these guarantees are not attained in whole or in part, the Supplier shall, at its discretion, either:

(a) Make such changes, modifications, and/or additions to the Goods or any part thereof as may be necessary in order to attain the contractual guarantees specified in the Contract at its own cost and expense and to carry out further performance tests in accordance with SCC 4,

**or**

(b) Pay liquidated damages to the Purchaser with respect to the failure to meet the contractual guarantees. The rate of these liquidated damages shall be 0.1 % of the contract price per day. The maximum amount of liquidated damages for the whole of the goods or part thereof shall be 5% of the contract price.

**or**



- (c) Replacement of the whole unit at site including transportation, installation, testing & commissioning etc in case of major defect at his own cost.

## 9. Payment (GCC Clause 16)

GCC 16.1—The method and conditions of payment to be made to the Supplier under this Contract shall be as follows:

Payment shall be made in Pak. Rupees in the following manner:

### **For Lot-1&2:**

**Payment against Warranty, Support & Subscription activation:** Upon submission of claim with all the supporting documents as mentioned in SCC 4 & 5 (as applicable), the supplier shall be paid within thirty (30) days. Payment shall be made upon complete delivery of software (if any) and activation of all relevant licenses /subscription / support.

### **For Lot- 3,4,5,6:**

**Payment against Delivered Goods & Warranty/support Subscription:** Upon submission of claim with all the supporting documents as mentioned in SCC 4 & 5 (as applicable), the supplier shall be paid within thirty (30) days. Payment shall be made upon complete delivery of software /equipment and activation of all relevant licenses /subscription /support.

### **For Lot-7:**

**Payment against Delivered Softwares:** Upon submission of claim with all the supporting documents as mentioned in SCC 4 & 5 (if applicable), the supplier shall be paid within thirty (30) days upon complete delivery and deployment of software.

### **For Lot-8:**

**Payment against Delivered Softwares:** Upon submission of claim with all the supporting documents as mentioned in SCC 4 & 5 (if applicable), the supplier shall be paid within thirty (30) days upon complete delivery and deployment of software.

**Payment against Services:** Upon completion of tiering service of AD, the supplier shall be paid within thirty (30) days after verification by the IT Team of PLRA.

## 10. Prices (GCC Clause 17)

GCC 17.1—Prices shall be: Fixed.

**11. Liquidated Damages (GCC Clause 23)**

Liquidated damages shall be imposed 0.1% of the total order value per day or part thereof subject to a maximum of 5% of the total order value.

**12. Resolution of Disputes (GCC Clause 28)**

GCC 28.3—The dispute resolution mechanism to be applied pursuant to GCC Clause 28.2 shall be as follows:

In the case of a dispute between the Purchaser and the Supplier, the dispute shall be referred to adjudication or arbitration in accordance with the Pakistan Arbitration Act, 1940.

**13. Governing Language (GCC Clause 29)**

GCC 29.1—The Governing Language shall be: English.

**14. Applicable Law (GCC Clause 30)**

GCC 30.1-The Contract shall be interpreted in accordance with the laws of Islamic Republic of Pakistan which includes the following legislation:

- The Employment of Children (ECA) Act 1991
- The Bonded Labour System (Abolition) Act of 1992
- The Factories Act 1934

**15. Notices (GCC Clause 31)**

GCC 31.1—Purchaser’s address for notice purposes –

Punjab Land Records Authority  
2 km, Thokar Niaz Baig Bypass, Main Multan Road, Lahore

042-99330125-26, Fax 042-99330127

—Supplier’s address for notice purposes:

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