

Tender Document

PROCUREMENT OF HARDWARE FOR SECURE TEHSIL LEVEL CONNECTIVITY



Punjab Information Technology Board

15-C-1 Model Town, Lahore - Pakistan.

Phone: (+ 92) (42) (5843701- 2, 9232121), Fax: (+92) (42) (9232123)

URL: www.pitb.gov.pk

Table of Contents

INVITATION TO BID	4
TERMS AND CONDITIONS OF THE TENDER.....	5
1. Definitions	5
2. Headings and Titles	6
3. Notice	6
4. Tender Scope.....	6
5. Tender Eligibility	6
6. Joint Venture	7
7. Amendment of the Tender Document.....	7
8. Response Format.....	8
9. Contact Details.....	10
10. Key Dates	10
11. Clarification / Questions relating to the bid.....	11
12. Tender Price.....	11
13. Tender Security	12
14. Tender Validity	12
15. Modification / Withdrawal of the Tender	12
16. Opening of the Tender.....	12
17. Determination of Responsiveness of the Tender	13
18. Evaluation of the Tenders	13
19. Rejection / Acceptance of the Tender	15
20. Acceptance Letter	16
21. Performance Security	16
TERMS & CONDITIONS OF THE CONTRACT.....	16
22. Contract.....	17
23. Contract Documents and Information	17
24. Contract Language.....	17
25. Standards	17
26. Commercial Availability	17
27. Patent Right.....	17
28. Execution Schedule	17
29. Packing	17
30. Insurance	18
31. Labeling.....	18
32. Delivery	18
33. Installation and Implementation	18
34. Site Preparation	19
35. Power	19
36. Safety	19

37.	Operation and Maintenance	19
38.	Test Equipment and Tools	19
39.	Spare Parts and Support.....	20
40.	Inspection and Testing	20
41.	Taking-Over Certificate.....	21
42.	Warranty	21
43.	Ownership of Goods and Replaced Components.....	22
44.	Defects Liability Expiry Certificate	22
45.	Payment.....	22
46.	Contract Amendment.....	22
47.	Assignment / Subcontract	23
48.	Extensions in time for performance of obligations under the Contract.....	23
49.	Liquidated Damages	23
50.	Blacklisting.....	23
51.	Forfeiture of Performance Security.....	24
52.	Termination for Default	24
53.	Termination for Insolvency	24
54.	Termination for Convenience	24
55.	Force Majeure	24
56.	Dispute Resolution	25
57.	Statutes and Regulations	25
58.	Taxes and Duties.....	25
59.	The Client	25
60.	Authorized Representative.....	25
61.	Waiver	26
62.	Training	26
63.	Documentation.....	26
	TECHNICAL SPECIFICATIONS:	27
	SPECIAL STIPULATIONS	40
	TENDER FORM	41
	AFFIDAVIT	42
	PRICE SCHEDULE	43
	TENDER SECURITY FORM	50
	PERFORMANCE SECURITY	51
	CONTRACT	52

INVITATION TO BID

1. Punjab Information Technology Board (hereinafter referred to as “the Purchaser”) invites / requests Proposals (hereinafter referred to as “the Tenders”) for supply of hardware for secure tehsil level connectivity (hereinafter referred to as “the Goods”) and for installation, configuration, deployment, commissioning, testing, training, after-sale support, etc. of said Goods (hereinafter referred to as “the Services”) on turnkey basis in each LOT of this document.
2. The bidding document carrying all details is available at PPRA website <http://ppra.punjab.gov.pk> and PITB website <http://www.pitb.gov.pk> for information only. All prospective bidders are required to submit the deposit slip, amounting Rs. 500/- in PITB A/C No. UBL 1534-9, SAM Branch, LCCI, Lahore, per each response and receive an official copy of the tender document from PITB Accounts Officer, 15-1-C Model Town Lahore.
3. All bids/proposals conforms in all material respects to the requirements and criteria set forth in this request for proposal and best meets the needs of PITB must be accompanied by a call deposit receipt (CDR) of two percent (02%) as on section-13 for the value of all the equipment quoted which will be refunded once the bidding process has been completed and contract awarded to the successful tenderer. The bids along with the CDR must be delivered to the office of the Accounts Officer, Punjab Information Technology Board, Lahore within 15 Days after first publication. The Technical bids will be publicly opened in the Committee Room of Punjab Information Technology Board, Lahore, 15-1-C Model Town, Lahore, at 1630 hours on 14th March, 2011.
4. Bidders must submit bids on Turnkey basis for each LOT. Failure to meet this condition will cause disqualification of the bidder.
5. Bidders shall submit Bids, which comply with the Bidding Documents. Alternative Bids will not be considered. The attention of bidders is drawn to the provisions of Clause on “Determination of Responsiveness of Bid” regarding the rejection of Bids, which are not substantially responsive to the requirements of the Bidding Documents.
6. The Purchaser will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.
7. As authority competent to accept the tender, the Purchaser reserves the right to accept or reject one or all the tenders without assigning any reason thereof.
8. All prices quoted must include any Taxes applicable, such as GST, Income Tax, etc. If not specifically mentioned in the Quotation, it will be presumed that the prices include all the taxes. Any subsequent change in tax regime would be adjusted accordingly.
9. Failure to comply with any terms and conditions in the tender document and contract given out to the successful tenderer could incur imposition of penalties as spelled out lately in the contract.

- 10 Execution/installation of the said tendered equipment will be carried out at Lahore, Punjab within twelve weeks from the commencement date of Contract between the Purchaser and the tenderer.
- 11 The contractor will have quoted equipment for the period of 3-year as backup, so that it can be installed in case of failure of any equipment.
- 12 The Bidding Firm must have efficient complaint management system i.e., (Help Desk, etc)
- 13 The Tenderer is expected to examine the Tender Document, including all instructions and terms and conditions.

TERMS AND CONDITIONS OF THE TENDER

1. Definitions

- 1.1.1 In this document, unless there is anything repugnant in the subject or context:
- 1.1.2 "Authorized Representative" means any representative appointed, from time to time, by the Client, the Purchaser or the Contractor.
2. "Availability and Reliability" means the probability that a component shall be operationally ready to perform its function when called upon at any point in time.
- 1.2.1 "Client" means the specific Punjab Government Department for which the Goods / Services has been procured or any other person, duly appointed in writing, by the Purchaser, for the time being or from time to time, to act as Client for the purposes of the Contract.
- 1.2.2 "Commencement Date of the Contract" means the date of signing of the Contract between the Purchaser and the Contractor.
- 1.2.3 "Contract" means the agreement entered into between the Purchaser and the Contractor, as recorded in the Contract Form signed by the parties, including all Schedules and Attachments thereto and all documents incorporated by reference therein.
- 1.2.4 "Contractor" means the person whose Tender has been accepted by the Purchaser.
- 1.2.5 "Contract Price" means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations.
- 1.2.6 "Contract Value" means that portion of the Contract Price adjusted to give effect to such additions or deductions as are provided for in the Contract which is properly apportionable to the Goods or Services in question.
- 1.2.7 "Defects Liability Expiry Certificate" means the certificate to be issued by the Client to the Contractor, in accordance with the Contract.
- 1.2.8 "Day" means calendar day.
- 1.2.9 "Defects Liability Period" means the warranty period following the taking over, during which the Contractor is responsible for making good, defects and damage in Goods and Services provided, under the Contract.
- 1.2.10 "Force Majeure" means an event beyond the control of the Contractor and not involving the Contractor'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, revolutions, fires, floods, epidemics, quarantine restrictions, and

- freight embargoes.
- 1.2.11 "Goods" means equipment, machinery, and/or other materials which the Contractor is required to supply to the Purchaser under the Contract.
 - 1.2.12 "Person" includes individual, association of persons, firm, company, corporation, institution and organization, etc., having legal capacity.
 - 1.2.13 "Prescribed" means prescribed in the Tender Document.
 - 1.2.14 "Purchaser" means the Punjab Information Technology Board or any other person for the time being or from time to time duly appointed in writing by the Purchaser to act as Purchaser for the purposes of the Contract.
 - 1.2.15 "Origin" shall be considered to be the place where the Goods are produced or from where the Services are provided. Goods are produced when, through manufacturing, processing or assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components. The origin of Goods and Services is distinct from the nationality of the Contractor.
 - 1.2.16 "Services" means installation, configuration, deployment, commissioning, testing, training, support, after sale service, etc. of Goods and other such obligations which the Contractor is required to provide to the Purchaser under the Contract.
 - 1.2.17 "Taking-Over Certificate" means the certificate to be issued by the Client to the Contractor, in accordance with the Contract.
 - 1.2.18 "Works" means work to be done by the Contractor under the Contract.

2. Headings and Titles

- 2.1 In this document, headings and titles shall not be construed to be part thereof or be taken into consideration in the interpretation of the document and words importing the singular only shall also include the plural and vice versa where the context so requires.

3. Notice

- 3.1 In this document, unless otherwise specified, wherever provision is made for exchanging notice, certificate, order, consent, approval or instructions amongst the Contractor, the Purchaser and the Client, the same shall be:
 - 3.1.1 in writing;
 - 3.1.2 issued within reasonable time;
 - 3.1.3 served by sending the same by courier or registered post to their principal office in Pakistan or such other address as they shall notify for the purpose; and
 - 3.1.4 The words "notify", "certify", "order", "consent", "approve", "instruct", shall be construed accordingly.

4. Tender Scope

- 4.1 Punjab Information Technology Board (hereinafter referred to as "the Purchaser") invites / requests Proposals (hereinafter referred to as "the Tenders") for supply of hardware for secure tehsil level connectivity (hereinafter referred to as "the Goods") and for installation, configuration, deployment, commissioning, testing, training, after-sale support etc. of said Goods (hereinafter referred to as "the Services").

5. Tender Eligibility

- 5.1 Eligible Tenderer is a Tenderer who:

- 5.2 (Company not meeting Eligibility Criteria will be Dis-qualified)
- 5.3 The company must have local presence.
 - 5.3.1 The Company must have deployed at least 2 projects of Core DC Networking equipment of similar nature as required/quoted in the bid and details of Services under way or contractually committed; and names and address of clients who may be contacted for further information on those contracts.
 - 5.3.2 The company must have the ability to cover the solution end to end as direct partner.
 - 5.3.3 The company must have the support letters from the manufacturers in the name of PITB authorizing to be supported on the said project ensuring legal channelized equipment deployment. (Manufacture Authorization Letter)
 - 5.3.4 The bidder must provide letter from their respective Principals validating the Design & BoQ of their respective brands/proposals and integration with the other systems required in RFP
- 6 The company must have certified resources on NOC.
- 7 The tender must be quoted on Turnkey basis in each LOT
 - 7.1.1 has a registered office in Pakistan;
 - 7.1.2 has required relevant experience;
 - 7.1.3 has authorization from principle manufacturer.
 - 7.1.4 has the required relevant personnel.
 - 7.1.5 Comprehensive 3 years support including Hardware and Labour support for Quoted Equipment
 - 7.1.6 Immediate Response is required on site (Data Center, Lahore) through a certified Resident engineer having min of 5 years relevant experience.
 - 7.1.7 Optional operational & Maintenance charges should be mentioned separately on basis for one year
 - 7.1.8 is manufacture of Goods / provider of Services or authorized dealer / agent of original manufacturer of Goods / provider of Services.
- 7.2 Goods and Services can only be supplied / sources / routed from "origin" in "eligible" member countries.
 - a. Eligible" is defined as any country or region that's is restricted to do business in Pakistan by any law of Government of Pakistan or an UN agency
 - b. "origin" shall be considered to be the place where the Goods are produced or from which the Services are provided. Goods are produced when, through manufacturing, processing or substantial and major assembling of components, a commercially recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

6. **Joint Venture**

- 8.1 Joint ventures are not allowed.
- 8.2 The Contractor shall not assign or sub-contract its obligations under the Contract, in whole or in part.

7. **Amendment of the Tender Document**

- 9.1 The Purchaser may, at any time prior to the deadline for submission of the Tender, at its own initiative or in response to a clarification requested by the prospective Tenderer(s), amend the Tender Document, on any account, for any reason. All amendment(s) shall be part of the Tender Document and binding on the prospective Tenderer(s).

- 9.2 The Purchaser shall notify the amendment(s) in writing to the prospective Tenderers.
- 9.3 The Purchaser may, at its exclusive discretion, amend the Tender Document to extend the deadline for the submission of the Tender, in which case all rights and obligations of the Purchaser and the Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.

8. Response Format

- 10.1 The Tenderer is allowed to bid for all items in the tender.
- 10.2 The Tenderer is not allowed to bid for partial equipment within a LOT.
- 10.3 The Tender and all documents relating to the Tender, exchanged between the Tenderer and the Purchaser, shall be in English. Any printed literature furnished by the Tenderer in another language shall be accompanied by an English translation which shall govern for purposes of interpretation of the Tender.
- 10.4 The Tender shall be filed in / accompanied by the prescribed Forms, Annexes, Schedules, Charts, Drawings, Documents, Brochures, Literature, etc. which shall be typed, completely filled in, stamped and signed by the Tenderer or his Authorized Representative. In case of copies, photocopies may be submitted.
- 10.5 The Tender shall be in two parts i.e the technical proposal and the financial proposal. Each proposal shall be in two sets i.e the original and the copy. In the event of any discrepancy between the original and the duplicate, the original shall govern.
- 10.6 The Technical Proposal shall comprise the following, without quoting the price:
- 10.6.1 Affidavit (All terms & conditions and qualifications listed anywhere in the RFP have been satisfactorily vetted)
- 10.6.2 Authorized Certificate / document from the principle / manufacturer.
- 10.6.3 Evidence of eligibility of the Tenderer and the Goods
- 10.6.4 Evidence of conformity of the Goods / the Services to the Tender Document
- 10.6.5 Evidence that the quoted Goods are genuine, brand new, non- refurbished, unaltered in any way, compliant to required specifications, imported through proper channel, and incorporate all recent improvements in design and materials
- 10.6.6 Technical Brochures / Literature
- 10.6.7 Details of Warranty and After-Sale Service
- 10.6.8 Financial accounts for the last three years
- 10.6.9 Registration Certificate for Income Tax & Sales Tax
- 10.6.10 Income Tax & Sales Tax Returns for the last three tax years
- 10.6.11 Power of Attorney, if an authorized representative is appointed
- 10.7 The Financial Proposal shall comprise the following:
- 10.7.1 Tender Form
- 10.7.2 Price Schedule
- 10.7.3 Tender Security
- 10.8 The Tenderer shall seal the Original Technical Proposal in an envelope duly marked as under:

Original Technical Tender for
Tender No. [Number of Tender]

[Name of the Purchaser]
[Address of the Purchaser]

[Name of the Tenderer]
[Address of the Tenderer]
[Phone No. of the Tenderer]

- 10.9 The Tenderer shall seal the Duplicate Technical Tender in an envelope duly marked as under:

Duplicate Technical Proposal for
Tender No. [Number of Tender]

[Name of the Purchaser]
[Address of the Purchaser]

[Name of the Tenderer]
[Address of the Tenderer]
[Phone No. of the Tenderer]

- 10.10 The Tenderer shall follow the same process for the Financial Tender.

- 10.11 The Tenderer shall again seal the sealed envelopes of Original Technical Proposal and the Original Financial Proposal in an outer envelope, duly marking the envelope as under:

Original Tender for
Tender No. [Number of Tender]
Strictly Confidential
Open on [Last Date of submission of the Tender]

[Name of the Purchaser]
[Address of the Purchaser]

[Name of the Tenderer]
[Address of the Tenderer]
[Phone No. of the Tenderer]

- 10.12 The Tenderer shall again seal the sealed envelopes of Duplicate Technical Proposal and the Duplicate Financial Proposal in an outer envelope, duly marking the envelope as under:

Duplicate Tender for
Tender No. [Number of Tender]
Strictly Confidential
Open on [Last Date of submission of the Tender]

[Name of the Purchaser]
[Address of the Purchaser]

[Name of the Tenderer]
[Address of the Tenderer]
[Phone No. of the Tenderer]

10.13 The Tenderer shall enclose soft copies of the Technical Proposal and the Financial Proposals, including all Forms, Annexes, Schedules, Charts, Drawings, Documents, Brochures, Literature, etc., in the form of MS Word Documents, MS Excel Worksheets and Scanned images, with the hard copies.

10.14 The Tender shall be mailed to reach and dropped in the Tender Box placed at the Reception of the Purchaser's office, during office hours, up to due date and time.

9. **Contact Details**

11.1 The Primary Contact & Secondary Contact for all correspondence in relation to this bid is as follows:

Primary Contact

Mr Aamir Zafar Ch (Director General (EA-II), PITB

Email: aamir@pitb.gov.pk

15-1-C, Model Town, Lahore, Punjab
Pakistan.

Secondary Contact

Mr Faisal Yousaf Joint Director (EA), PITB

Email: faisal@pitb.gov.pk

15-1-C, Model Town, Lahore, Punjab
Pakistan.

11.2 Bidders should note that during the period from the receipt of the bid and until further notice from the Primary Contact, all queries should be communicated via the Primary Contact simultaneously Secondary Contact and in writing (e-mail) only. In the case of an urgent situation where the Primary Contact cannot be contacted, the bidder may alternatively direct their enquiries through one of the Secondary Contacts.

11.3 Bidders are also required to state, in their proposals, the name, title, fax number and e-mail address of the bidder's nominated person through whom all communications shall be directed until the process has been completed or terminated.

10. **Key Dates**

The following timetable will govern the bid and bidder selection processes.

Bid schedule

Activity/Event	Closing Date/Time
Issuance of RFP	14 th March 2011
Closing date for supplementary questions arising from RFP	07-days prior to bid submission
RFP response - submission deadline	15-days from issuance of tender

These dates are mission-critical. Delays and late submissions will not be accepted. Proposal presentation dates will be announced separately (if required) on two working days' notice.

11. Clarification / Questions relating to the bid

- 13.1 The Purchaser shall have the right, at his exclusive discretion, to require, in writing, further information or clarification of the Tender, from any or all the Tenderer(s). No change in the price or substance of the Tender shall be sought, offered or permitted except as required to confirm the corrections of arithmetical errors discovered in the Tender. Acceptance of any such correction is sold discretion of the purchaser
- 13.2 Questions regarding the bid may be submitted to the Primary Contact & secondary contact, via email by 07-days prior to bid submission. Every attempt will be made to promptly answer all enquiries from each bidder. At the discretion of PITB, details of questions received from individual bidders, and corresponding PITB answers, may be circulated to all recipients of the bid. In this case, PITB will not reveal the identities of the bidders that submitted the questions.

12. Tender Price

- 14.1 The quoted price shall be:
- 14.1.1 best / final / fixed and valid until completion of the Contract i.e not subject to variation / escalation;
- 14.1.2 on FOR basis including all charges up to the delivery point at various Punjab Government Offices in Punjab;
- 14.1.3 in Pak Rupees;
- 14.1.4 inclusive of all taxes, duties, levies, insurance, freight, etc.
- 14.2 If not specifically mentioned in the Tender(s), it shall be presumed that the quoted price is as per the above requirements.
- 14.3 Where no prices are entered against any item(s), the price of that item shall be deemed to have been distributed among the prices of other items, and no separate payment shall be made for that item(s).
- 14.4 Each cost should be identified separately as installation (one time) or monthly/quarterly/yearly (recurring) for any other equipment rental or any support of operation services thereof.
- 14.5 In case of locally produced Service, the price shall include all customs duties and sales and other taxes already paid or payable on the components and raw materials used in the manufacture or assembly of the item. In case of Contract of imported Service offered Ex-Warehouse/Off-the-Shelf from within the Purchaser's country, import duties and sales and other taxes already paid shall be shown separately.
- 14.6 The Tenderer shall bear all costs / expenses associated with the preparation and

submission of the Tender(s) and the Purchaser shall in no case be responsible / liable for those costs / expenses.

13. Tender Security

15.1 The Tenderer shall furnish the Tender Security as under:

15.1.1 For the whole Tender;

15.1.2 if Total Tender Price is less than or equal to PKR 5 Million, in the form of Demand Draft / Pay Order / Call Deposit Receipt, in the name of the Purchaser;

15.1.3 if the Total Tender Price is more than PKR 5 Million, in the form of Bank Guarantee, issued by a scheduled bank operating in Pakistan, in the name of the Purchaser, as per the format provided in the Tender Document or in another form acceptable to the Purchaser;

15.1.4 for a sum equivalent to 2% of the Total Tender Price;

15.1.5 denominated in a currency of the Tender;

15.1.6 have a minimum validity period of ninety days from the last date for submission of the Tender or until furnishing of the Performance Security, whichever is later.

15.2 The proceeds of the Tender Security shall be payable to the Purchaser, on the occurrence of any / all of the following conditions:

15.2.1 If the Tenderer withdraws the Tender during the period of the Tender validity specified by the Tenderer on the Tender Form; or

15.2.2 If the Tenderer does not accept the corrections of his Total Tender Price; or

15.2.3 If the Tenderer, having been notified of the acceptance of the Tender by the Purchaser during the period of the Tender validity, fails or refuses to furnish the Performance Security, in accordance with the Tender Document.

15.3 The Tender security shall be returned to the unsuccessful Tenderer upon award of the Contract. The Tender Security shall be returned to the successful Tenderer on furnishing the Performance Security.

14. Tender Validity

16.1 The Tender shall have a minimum validity period of ninety days from the last date for submission of the Tender. The Purchaser may solicit the Tenderer's consent to an extension of the validity period of the Tender. The request and the response thereto shall be made in writing. If the Tenderer agrees to extension of validity period of the Tender, the validity period of the Tender security shall also be suitably extended. The Tenderer may refuse extension of validity period of the Tender, without forfeiting the Tender security.

15. Modification / Withdrawal of the Tender

17.1 The Tenderer may, by written notice served on the Purchaser, modify or withdraw the Tender after submission of the Tender, prior to the deadline for submission of the Tender.

17.2 The Tender, withdrawn after the deadline for submission of the Tender and prior to the expiration of the period of the Tender validity, shall result in forfeiture of the Tender Security.

16. Opening of the Tender

18.1 Technical proposals will be opened first, qualifying firms will be invited for the opening of their financial bids

- 18.2 The Tenderer's name, modifications, withdrawal, security, attendance of the Tenderer and such other details as the Purchaser may, at its exclusive discretion, consider appropriate, shall be announced and recorded.

17. Determination of Responsiveness of the Tender

- 19.1 The Purchaser shall determine the substantial responsiveness of the Tender to the Tender Document, prior to the Tender evaluation, on the basis of the contents of the Tender itself without recourse to extrinsic evidence. A substantially responsive Tender is one which:
- 19.1.1 meets the eligibility criteria for the Tenderer / the Goods / the Services;
 - 19.1.2 meets the Technical Specifications for the Goods / the Services;
 - 19.1.3 meets the delivery period / point for the Goods / the Services;
 - 19.1.4 meets the rate and limit of liquidated damages;
 - 19.1.5 offers fixed price quotations for the Goods / the Services;
 - 19.1.6 is accompanied by the required Tender Security;
 - 19.1.7 is otherwise complete and generally in order;
 - 19.1.8 Conforms to all terms and conditions of the Tender Document, without material deviation or reservation.
- 19.2 A material deviation or reservation is one which affects the scope, quality or performance of the Goods or limits the Purchaser's rights or the Tenderer's obligations under the Contract.
- 19.3 The Tender determined as not substantially responsive shall not subsequently be made responsive by the Tenderer by correction or withdrawal of the material deviation or reservation. However, the Purchaser may waive off any minor non-conformity or inconsistency or informality or irregularity in the Tender.

18. Evaluation of the Tenders

- 20.1 Proponents applying for bids should submit two separate bids/envelopes for financial proposal and technical proposals.
- 20.2 Financial bids of Firms not pre-qualified on Technical basis will not be opened. The selected firms would be responsible for complete execution, installation, configuration, deployment, commissioning, testing of the equipment and would hand over it in satisfactory running state within stipulated time.
- 20.3 The Tender Evaluation Committee shall evaluate the Tenders, previously determined to be substantially responsive, in steps. In the first step, Technical Proposal shall be evaluated as per the technical evaluation criteria. In the second step, Financial Proposal of only such Tenders in which Technical Proposal meets / exceeds the benchmark of technical evaluation criteria shall be evaluated as per the financial evaluation criteria. Finally, only such Tenders in which Financial Proposal also meets / exceeds the benchmark of financial evaluation criteria shall be positioned in descending order on the basis of the cumulative score. The Tender with the highest score shall be successful.
- 20.4 The Tender shall be checked for any arithmetic errors which shall be rectified, as follows:
- 20.4.1 if there is a discrepancy between the amount in figures and the amount in words for the Total Tender Price entered in the Tender Form, the amount which tallies with the Total Tender Price entered in the Price Schedule, shall govern.
 - 20.4.2 if there is a discrepancy between the unit rate and the total price entered in the price Schedule, resulting from incorrect multiplication of the unit rate by the quantity, the unit rate as quoted shall govern and the total price shall be

- corrected, unless there is an obvious and gross misplacement of the decimal point in the unit rate, in which case the total price as quoted shall govern and the unit rate shall be corrected.
- 20.4.3 if there is a discrepancy in the actual sum of the itemized total prices and the total tender price quoted in the Price Schedule, the actual sum of the itemized total prices shall govern.
- 20.5 The Tender price as determined after arithmetic corrections shall be termed as the Corrected Total Tender Price which shall be binding upon the Tenderer.
- 20.6 Adjustment shall be based on corrected Tender Prices. The price determined after making such adjustments shall be termed as Evaluated Total Tender Price.
- 20.7 The cost of making good any deficiency resulting from any acceptable, quantifiable variations and deviations from the terms and conditions of the Contract / Technical Specifications, shall be added to the corrected Tender Price for comparison purposes only. No credit shall be given for offering delivery period earlier than the specified period.
- 20.8 The Tenderer shall state the Tender Price for the payment terms outlined in the Conditions of Contract which will be considered for the evaluation of the Tender. The Tenderer may state alternate payment terms and indicate the reduction in the Tender price offered for such alternative payment terms. The Purchaser may consider the alternative payment terms offered by the Tenderer.
- 20.9 The Tenderers may offer discounts for items which shall be taken into account in the evaluation of the Tenders so as to determine the Tender offering the lowest evaluated cost for the Purchaser in deciding award(s) for whole tender.

21 Parameters of Technical Evaluation

Evaluation Parameter For Bids	Total Marks	Questionnaire
Technical Proposal (Qualification 75/100)	100	Disqualification in any two parts will lead to overall disqualification.
Staff Skill Set and Experience in respective Lot 1-Data Center 2-Network Operation Center	30	Total certified Staff
Existing operation support	05	Existing operation support with documentary proof
Partnership status with Principle	10	The company must provide its authorization letter from principle manufacturer.
Help Desk Availability	05	Help Desk availability
Quality of SLA offered	10	SLA offered
Financial Audit Reports	10	Balance sheet (Profit & loss statement) Audit Report And income tax return
Number of dedicated resources committed	10	Dedicated staff for this project implementation & support
Business undertaken in last three years in same industrial segment	20	Projects with documentary proof

22. Rejection / Acceptance of the Tender

22.1 The Purchaser shall have the right, at his exclusive discretion, to increase / decrease the quantity of any or all item(s) without any change in unit prices or other terms and conditions, accept a Tender reject any or all tender(s), cancel / annul the Tendering process at any time prior to award of Contract, without assigning any reason or any obligation to inform the Tenderer of the grounds for the Purchaser's action, and without thereby incurring any liability to the Tenderer and the decision of the Purchaser shall be final.

22.2 The Tender shall be rejected if it is:

22.2.1 substantially non-responsive; or

22.2.2 submitted in other than prescribed forms, annexes, schedules, charts, drawings, documents / by other than specified mode; or

22.2.3 incomplete, un-sealed, un-signed, printed (hand written), partial, conditional, alternative, late; or

22.2.4 subjected to interlineations / cuttings / corrections / erasures / overwriting; or

22.2.5 the Tenderer submits more than one Tenders; or

22.2.6 the Tenderer refuses to accept the corrected Total Tender Price; or

22.2.7 the Tenderer has conflict of interest with the Purchaser; or

- 22.2.8 the Tenderer tries to influence the Tender evaluation / Contract award; or
- 22.2.9 the Tenderer engages in corrupt or fraudulent practices in competing for the Contract award.

23. Acceptance Letter

- 23.1 The Purchaser shall, send the Acceptance Letter to the successful Tenderer, prior to the expiry of the validity period of the Tender, which shall constitute a contract, until execution of the formal Contract.

24. Performance Security

- 24.1 The successful Tenderer shall furnish Performance Security as under:
- 24.1.1 within three working days of the receipt of the Acceptance Letter from the Purchaser;
- 24.1.2 in the form of a Bank Guarantee, issued by a scheduled bank operating in Pakistan, as per the format provided in the Tender Document or in another form acceptable to the Purchaser;
- 24.1.3 for a sum equivalent to 10% of the contract value;
- 24.1.4 denominated in a currency of the Contract;
- 24.1.5 have a minimum validity period of ninety days from the date of Award Notification or until the date of expiry of warranty period, whichever is later.
- 24.2 The proceeds of the Performance Security shall be payable to the Purchaser, on occurrence of any / all of the following conditions:
- 24.2.1 If the Contractor commits a default under the Contract;
- 24.2.2 If the Contractor fails to fulfill any of the obligations under the Contract;
- 24.2.3 If the Contractor violates any of the terms and conditions of the Contract.
- 24.3 The Contractor shall cause the validity period of the performance security to be extended for such period(s) as the contract performance may be extended. The Performance Security shall be returned to the Tenderer within thirty working days after the expiry of its validity.

TERMS & CONDITIONS OF THE CONTRACT

Documents to be the part of Contract

- **Scope of Work**
- **Responsibility Matrix**
- **The implementation plan**
- **Project Plan**
- **High Level design**
- **Low Level Design**
- **Human resource plan**
- **Risk management plan**
- **Resource utilization against each activity**
- **Communication management plan**
- **Training Plan**

- **Payment Plan**
- **SLA**

Contract

The Purchaser shall, after receipt of the Performance Security from the successful Tenderer, send the Contract provided in the Tender Document, to the successful Tenderer. Within three working days of the receipt of such Contract, the Tenderer shall sign and date the Contract and return it to the Purchaser.

25. Contract Documents and Information

The Contractor shall not, without the Purchaser's prior written consent, make use of the Contract, or any provision thereof, or any document(s), specifications, drawing(s), pattern(s), sample(s) or information furnished by or on behalf of the Purchaser in connection therewith, except for purposes of performing the Contract or disclose the same to any person other than a person employed by the Contractor in the performance of the Contract. Disclosure to any such employed person shall be made in confidence and shall extend only as far as may be necessary for purposes of such performance.

26. Contract Language

The Contract and all documents relating to the Contract, exchanged between the Contractor and the Purchaser, shall be in English. The Contractor shall bear all costs of translation to English and all risks of the accuracy of such translation.

27. Standards

The Goods supplied and the Services provided under this Contract shall conform to the authoritative latest industry standards and best practices as per Tier 3 Data Center.

28. Commercial Availability

The Goods supplied under this Contract shall be commercially available at the time of signing of the contract. Commercial availability means that such Goods shall have been sold, installed and operationalized in more than two installations initiated under two separate contracts by manufacturer globally.

29. Patent Right

The Contractor shall indemnify and hold the Purchaser harmless against all third party claims of infringement of patent, trademark or industrial design rights arising from use of the Goods / the Service or any part thereof.

30. Execution Schedule

The Contractor shall submit an Execution Schedule, giving details of customs clearance, supply, installation, configuration, deployment, commissioning, testing, training, etc., as required under the Contract, to the Client, within three days of the signing of the Contract.

31. Packing

The Contractor shall provide such packing of the Goods as is sufficient to prevent their damage or deterioration during storage / transit to their final destination as indicated in the Contract. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination and withstand, without limitation, rough handling, exposure to extreme temperatures,

salt and precipitation at all points in storage / transit. The Contractor shall arrange and pay for the packing of the Goods to the place of destination as specified in the Contract, and the cost thereof shall be included in the Contract Price.

32. Insurance

The Contractor shall provide such insurance of the Goods as is sufficient to protect against their damage or deterioration during storage / transit to their final destination as indicated in the Contract. The Contractor shall arrange and pay for the insurance of the Goods to the place of destination as specified in the Contract, and the cost thereof shall be included in the Contract Price.

33. Labeling

The Goods supplied under the Contract, shall be clearly labeled so as to correspond with the delivered documentation, with proper labeling scheme provided by the Client. All networking equipment, cables, connectors, ports, boxes shall be clearly labeled.

34. Delivery

The Contractor shall indicate his delivery approach clearly specifying the requirements for packing, shipping and unpacking of deliverable hardware, software and documentation. The approach shall address shipment of deliverables to the various designated (installation) sites. The approach shall also specify any special shipping constraints such as custom requirements, security requirements, access arrangement or loading dock requirements. The Contractor shall deliver the Goods at various Governors' Secretariat Punjab in Punjab, as specified by the Purchaser at the time of delivery.

- 31.1 The Service shall remain at the risk and under the physical custody of the Contractor until the delivery and testing of the Goods is completed.
- 31.2 The Contractor shall ensure that the Goods shall be delivered complete to enable the testing and training to proceed without interruption. If it shall appear to the Client that the Goods have been or are likely to be delayed by reason of incomplete delivery or for any other reasons, he may require the Contractor at the expense of the Contractor to dispatch the missing items of the Goods or suitable replacements thereof to the site of delivery by the fastest available means including air freight.
- 31.3 The Contractor shall include in the Tender a detailed logistics plan which shall include support details for transportation, mobilization and personnel scheduling during project implementation and the warranty period. The Contractor shall provide maintenance, supply and procurement support necessary for Client to maintain all system, at the contracted performance and reliability level. The Contractor shall arrange and pay for the transport of the Goods to the place of destination as specified in the Contract, and the cost thereof shall be included in the Contract Price.

35. Installation and Implementation

The Contractor shall ensure that the implementation design conforms to an open standard by which new services can be added without disruption to existing services.

- 32.1 The Contractor shall ensure that the implementation is fault tolerant. This is accomplished by supplying a set of programs and procedures that allow the system recovery or roll back when a fault is detected.
- 32.2 The Contractor shall provide a document stating step-by-step procedures for installation and disaster recovery to the Purchaser.

- 32.3 The Contractor shall provide all the recent patches and updates for Firmware/Hardware, on a reliable media, with proper labeling, during the installation to the Purchaser.
- 32.4 The Contractor shall configure the system for high availability and reliability, of all hardware and software.
- 32.5 The Contractor shall submit detailed and complete installation, transition and cutover plan for the new system, installation procedures for the new components specifying equipment checkout, installation constraints, operational cutover, maintenance prior to Client acceptance and if special security and/or access arrangements are required.
- 32.6 New equipment, shall be installed with existing equipment, and shall require close coordination between the Contractor and the Client personnel.

36. Site Preparation

- 33.1 The Purchaser is responsible for site availability and necessary arrangements for the running of the required solution deployment
- 33.2 The Contractor shall be responsible to survey the site, prepare the site, determine power, air conditioning and floor space requirements, identify and install, if necessary, any special / additional power and air conditioning requirements, for the proposed equipment.
- 33.3 The Purchaser and the Client shall facilitate the Contractor in discharge of the above responsibilities.

37. Power

- 34.1 The Goods supplied under the Contract, unless otherwise specified, shall be capable of operating normally with single phase AC power, within the range of 220-240V, with the corresponding frequency of 50 Hz, inclusive, and should be protected from over-voltage, over heating and out-of-tolerance current surges.

38. Safety

- 35.1 The Contractor shall be responsible for the embedding of safety features in the inherent design of the equipment, for elimination of identified hazards, including but not limited to high voltage, electromagnetic radiation, sharp points and edges, etc., and reduction of associated risk to personnel and equipment.
- 35.2 The Contractor shall be responsible for the addition of bilingual warnings and caution notices, where hazards cannot be eliminated or risks cannot be reduced.
- 35.3 The Contractor shall be responsible for the protection of the power sources, controls, and critical components of the redundant systems and subsystems by shielding or physical separation when possible.

39. Operation and Maintenance

- 36.1 The Contractor shall be responsible for the continuous operational capability and maintenance of the quoted solution, 24/7, without disruption to either service or performance, during the warranty period.

40. Test Equipment and Tools

- 37.1 The Contractor shall evaluate the existing facilities and abilities of the Client to accomplish corrective and preventive maintenance and support and identify additional skills, test equipment and tools required to maintain and support the new equipment. Such test equipment and tools shall be state of the art in design aimed at providing an efficient, systematic and cost effective repair operation for all

replaceable components.

41. Spare Parts and Support

- 38.1 The Contractor shall ensure that the Services provided by the Contractor, under the Contract are standard and of exact Computer Hardware and Networking Equipment, and incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 38.2 The Contractor shall further ensure that the Services provided by the Contractor, under the Contract shall have no defect, arising from design, materials, installation, configuration, or from any act or omission of the Contractor that may develop under normal use of the provided Service.
- 38.3 The Contractor shall maintain sufficient backup stock of spare parts and tools locally at sites, for the maintenance of the supplied Goods, during the warranty period.
- 38.4 The Contractor shall ensure availability of spare parts and technical assistance for all components for at least five years, without major changes, after the completion of final acceptance.
- 38.5 The Contractor shall give six months advance notice on any discontinued part(s) with a suggestion for appropriate alternatives.
- 38.6 The Contractor shall also identify and provide the following:
- 38.6.1 items (repairable spares, parts and consumable supplies) that are needed to maintain design performance, reliability and availability standards prescribed in the Technical Specifications. The quantity of spare parts and consumable items provided and kept shall be equal to the requirements for one year of operating stock;
- 38.6.2 critical items, whose failure would cause a system failure;
- 38.6.3 items of high cost and/or long lead time (over thirty working days);
- 38.6.4 items whose design reliability is such that normal stock replenishment would not justify maintaining a level of the item in stock.

42. Inspection and Testing

- 39.1 The Purchaser shall inspect and test the Goods supplied, the Services provided or the Works carried out, under the Contract, to verify their conformity to the Technical Specifications.
- 39.2 The inspections and tests shall be conducted at the premises of the Contractor / its subcontractor(s) / at the final destination. Where conducted at the premises of the Contractor / its subcontractor(s), the Contractor / its subcontractor(s) shall provide all-reasonable facilities and assistance, including access to drawings, production data and online verification from official web site of the Manufacture, to the inspectors, at no charge to the Purchaser.
- 39.3 The Purchaser may reject the Goods, the Services or the Works if they fail to conform to the Technical Specifications, in any test(s) or inspection(s) and the Contractor shall either replace the rejected Goods, Services or Works or make all alterations necessary to meet the Technical Specifications, within three working days, free of cost to the Purchaser.
- 39.4 The Purchaser's post-delivery right to inspect, test and, where necessary, reject the Goods shall in no way be limited or waived by reason of pre-delivery inspection, testing or passing of the Goods.
- 39.5 Nothing contained in Clauses 41.1 and 41.2 shall, in any way, release the Contractor from any Warranty or other obligations under the Contract.

43. Taking-Over Certificate

- 40.1 The Contractor shall, by written notice served on the Client with a copy to the Purchaser, apply for a Taking-Over Certificate.
- 40.2 The Client shall, within twenty one days of receipt of Contractor's application, either issue the Taking-Over Certificate to the Contractor with a copy to the Purchaser, stating the date of successful inspection / testing of the Goods or any portion thereof, for their intended purposes; or reject the application giving the reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued.
- 40.3 Nothing contained in Clauses 42.1 and 42.2 shall, in any way, release the Contractor from any Warranty or other obligations under the Contract.

44. Warranty

- 41.1 The Contractor shall warrant to the Purchaser that the Goods supplied by the Contractor, under the Contract are genuine, brand new, non- refurbished, un-altered in any way, of the most recent or current model, imported through proper channel, and incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.
- 41.2 The Contractor shall further warrant that the Goods supplied by the Contractor, under the Contract shall have no defect, arising from design, materials, workmanship or from any act or omission of the Contractor that may develop under normal use of the supplied Goods.
- 41.3 The Contractor shall provide Manufacturer's warranty for minimum three years (hereinafter referred as Warranty Period), after the issue of Taking-over Certificate in respect of Goods, the Services and the Works, or any portion thereof, as the case may be, which will include:
 - 41.3.1 Free, on site repair / replacement of defective / damaged parts and labor, within 24 hours of intimation in Lahore and 48 hours outside Lahore;
 - 41.3.2 On site replacement of defective / damaged Goods, if repair of such Goods involves a duration exceeding 24 hours.
- 41.4 The Contractor shall provide Manufacturer's warranty for minimum one year included (hereinafter referred as Warranty Period) and extended warranty for second and third year separately, after the issue of Taking-over Certificate in respect of Goods, the Services and the Works, or any portion thereof, as the case may be, which will include: but quoted for each year(2-3)
- 41.5 The Contractor shall clearly mention Terms and Conditions of service agreements for the Goods supplied after the expiry of initial warranty period. In case of International Warranties, the local authorized dealers shall mention their service and warranty setup, details of qualified engineers, etc.
- 41.6 The purchaser retain the rights to enter into annual maintenance contact with the supplier at 10% or lower of the cost at which the goods were supplied
- 41.7 The Warranty Period shall start from the date of installation / configuration / deployment of the Goods on site.
- 41.8 The Client shall, by written notice served on the Contractor with a copy to the Purchaser, promptly indicate any claim(s) arising under the warranty.
- 41.9 The Contractor shall, within the prescribed time period, after receipt of such notice, repair or replace the defective / damaged Goods or parts thereof on site, without any cost to the Purchaser.
- 41.10 The end user licenses, end user warranties and end user contracting support

services shall be in the name of Purchaser, for the Goods supplied, the Services provided and the Works done, under the Contract.

45. Ownership of Goods and Replaced Components

- 42.1 Goods to be supplied to the Purchaser, pursuant to the Contract, shall become the property of the Purchaser when the Goods are taken over by the Purchaser. Defective components to be replaced by the Contractor, pursuant to the Contract, shall become the property of the Contractor as and where it lies.

46. Defects Liability Expiry Certificate

- 43.1 The Contractor shall, after expiry of the warranty period, by written notice served on the Client with a copy to the Purchaser, apply for a Defects Liability Expiry Certificate.
- 43.2 The Client shall, within twenty one days of receipt of such notice, either issue the Defects Liability Expiry Certificate to the Contractor with a copy to the Purchaser, stating the date of expiry of the Warranty Period for all the Goods supplied and fulfillment of all obligations by the Contractor, under the Contract; or reject the application giving the reasons and specifying the work required to be done by the Contractor to enable the Defects Liability Expiry Certificate to be issued.

47. Payment

- 44.1 The Contractor shall submit an invoice for Payment to the Client. The Application for invoice shall: be accompanied by such invoices, receipts or other documentary evidence as the Client may require; state the amount claimed; and set forth in detail, in the order of the Price Schedule, the Services provided and the Works done, up to the date of the Application for Payment and subsequent to the period covered by the last preceding Certificate of Payment, if any. Any other charges pre-approved by PITB relevant person.
- 44.2 The Client shall issue a Certificate of Payment to the Purchaser, with a copy to the Contractor, verifying the amount due, within reasonable time of receipt of an invoice. The Client may withhold a Certificate of Payment on account of non-satisfactory performance of the Services. The Client may make any correction or modification in a Certificate of Payment that properly be made in respect of any previous certificate.
- 44.3 The Purchaser shall pay the amount verified in the Certificate of Payment within acceptable time frame. Payment shall not be made in advance. The Purchaser shall make payment for the Services provided and the Works done, to the Contractor, as per Government policy, on monthly basis, in the currency of the Tender, through treasury cheque.
- 44.4 All payments shall be subject to any and all taxes applicable under the laws of Pakistan.

48. Contract Amendment

- 45.1 The Purchaser may, at any time, by written notice served on the Contractor with a copy to the Client, alter, amend, omit, increase, decrease or otherwise change the nature, quality, quantity and scope, of all / any of the Goods / the Services / the Works, in whole or in part.
- 45.2 The Contractor shall, within ten working days of receipt of such notice, submit a cost estimate and execution schedule of the proposed change (hereinafter referred to as the Change), to the Purchaser.

- 45.3 The Contractor shall not execute the Change until and unless the Purchaser has allowed the said Change, by written order served on the Contractor with a copy to the Client.
- 45.4 The Change, mutually agreed upon, shall constitute part of the obligations under this Contract, and the provisions of the Contract shall apply to the said Change.
- 45.5 No variation in or modification in the Contract shall be made, except by written amendment signed by both the Purchaser and the Contractor.

49. Assignment / Subcontract

- 46.1 The Contractor shall not assign or sub-contract its obligations under the Contract, in whole or in part, except with the Purchaser's prior written consent.
- 46.2 The Contractor shall guarantee that any and all assignees / subcontractors of the Contractor shall, for performance of any part / whole of the work under the contract, comply fully with the terms and conditions of the Contract applicable to such part / whole of the work under the contract.

50. Extensions in time for performance of obligations under the Contract

- 47.1 If the Contractor encounters conditions impeding timely performance of any of the obligations, under the Contract, at any time, the Contractor shall, by written notice served on the Purchaser with a copy to the Client, promptly indicate the facts of the delay, its likely duration and its cause(s). As soon as practicable after receipt of such notice, the Purchaser shall evaluate the situation and may, at its exclusive discretion, without prejudice to any other remedy it may have, by written order served on the Contractor with a copy to the Client, extend the Contractor's time for performance of its obligations under the Contract.

51. Liquidated Damages

- 48.1 If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract the Purchaser may, without prejudice to any other right of action / remedy it may have, deduct from the Contract Price, as liquidated damages, a sum of money @0.25% of the Contract Price which is attributable to such part of the Goods / the Services / the Works as cannot, in consequence of the failure / delay, be put to the intended use, for every day between the scheduled delivery date(s), with any extension of time thereof granted by the Purchaser, and the actual delivery date(s). Provided that the amount so deducted shall not exceed, in the aggregate, 50% of the Contract Price.

52. Blacklisting

- 49.1 If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract the Purchaser may, at any time, without prejudice to any other right of action / remedy it may have, blacklist the Contractor, either indefinitely or for a stated period, for future tenders in public sector.
- 49.2 If the Contractor is found to have engaged in corrupt or fraudulent practices in competing for the award of contract or during the execution of the contract, the Purchaser may, at any time, without prejudice to any other right of action / remedy it may have, blacklist the Contractor, either indefinitely or for a stated period, for future tenders in public sector.

53. Forfeiture of Performance Security

- 50.1 If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract the Purchaser may, without prejudice to any other right of action / remedy it may have, forfeit Performance Security of the Contractor.

54. Termination for Default

- 51.1 If the Contractor fails / delays in performance of any of the obligations, under the Contract / violates any of the provisions of the Contract / commits breach of any of the terms and conditions of the Contract the Purchaser may, at any time, without prejudice to any other right of action / remedy it may have, by written notice served on the Contractor with a copy to the Client, indicate the nature of the default(s) and terminate the Contract, in whole or in part, without any compensation to the Contractor. Provided that the termination of the Contract shall be resorted to only if the Contractor does not cure its failure / delay, within fifteen working days (or such longer period as the Client may allow in writing), after receipt of such notice.
- 51.2 If the Purchaser terminates the Contract for default, in whole or in part, the Purchaser may procure, upon such terms and conditions and in such manner as it deems appropriate, Goods / Services / Works, similar to those undelivered, and the Contractor shall be liable to the Purchaser for any excess costs for such similar Goods / Services / Works. However, the Contractor shall continue performance of the Contract to the extent not terminated.

55. Termination for Insolvency

- 52.1 If the Contractor becomes bankrupt or otherwise insolvent, the Purchaser may, at any time, without prejudice to any other right of action / remedy it may have, by written notice served on the Contractor with a copy to the Client, indicate the nature of the insolvency and terminate the Contract, in whole or in part, without any compensation to the Contractor.

56. Termination for Convenience

- 53.1 The Purchaser may, at any time, by written notice served on the Contractor with a copy to the Client, terminate the Contract, in whole or in part, for its convenience, without any compensation to the Contractor.
- 53.2 The Goods and the Services which are complete or to be completed by the Contractor, within thirty working days after the receipt of such notice, shall be accepted by the Purchaser. For the remaining Goods, the Purchaser may elect:
- 53.2.1 to have any portion thereof completed and delivered; and/or
- 53.2.2 to cancel the remainder and pay to the Contractor an agreed amount for partially completed Goods, Services, Works and materials / parts previously procured by the Contractor for the purpose of the Contract, together with a reasonable allowance for overhead & profit.

57. Force Majeure

- 54.1 The Contractor shall not be liable for liquidated damages, forfeiture of its Performance Security, blacklisting for future tenders, termination for default, if and to the extent his failure / delay in performance /discharge of obligations under the Contract is the result of an event of Force Majeure.
- 54.2 If a Force Majeure situation arises, the Contractor shall, by written notice served

on the Purchaser with a copy to the Client, indicate such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Contractor shall continue to perform 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.

58. Dispute Resolution

- 55.1 The Purchaser and the Contractor shall make every effort to amicably resolve, by direct informal negotiation, any disagreement or dispute arising between them under or in connection with the Contract.
- 55.2 If, after thirty working days, from the commencement of such informal negotiations, the Purchaser and the Contractor have been unable to amicably resolve a Contract dispute, either party may, require that the dispute be referred for resolution by arbitration under the Pakistan Arbitration Act, 1940, as amended, by one or more arbitrators selected in accordance with said Law. The place for arbitration shall be Lahore, Pakistan. The award shall be final and binding on the parties.

59. Statutes and Regulations

- 56.1 The Contract shall be governed by and interpreted in accordance with the laws of Pakistan.
- 56.2 The Contractor shall, in all matters arising in the performance of the Contract, conform, in all respects, with the provisions of all Central, Provincial and Local Laws, Statutes, Regulations and By-Laws in force in Pakistan, and shall give all notices and pay all fees required to be given or paid and shall keep the Purchaser indemnified against all penalties and liability of any kind for breach of any of the same.
- 56.3 The Courts at Lahore shall have the exclusive territorial jurisdiction in respect of any dispute or difference of any kind arising out of or in connection with the Contract.

60. Taxes and Duties

- 57.1 The Contractor shall be entirely responsible for all taxes, duties and other such levies imposed outside and within Pakistan. Taxes and duties shall be deducted as per Law. The Contractor may make inquiries on income tax / sales tax to the concerned authorities of Income Tax and Sales Tax Department, Government of Pakistan.

61. The Client

- 58.1 The Client shall only carry out such duties and exercise such authority as specified in the Contract. The Client shall have no authority to relieve the Contractor of any of his obligations under the Contract, except as expressly stated in the Contract.
- 58.2 The Contractor shall proceed with the decisions, instructions or approvals given by the Client in accordance with these Conditions.

62. Authorized Representative

- 59.1 The Purchaser, the Client or the Contractor may, at their exclusive discretion, appoint their Authorized Representative and may, from time to time, delegate any / all of the duties / authority, vested in them, to their authorized Representative(s),

including but not limited to, signing on their behalf to legally bind them, and may, at any time, revoke such delegation.

- 59.2 The Authorized Representative shall only carry out such duties and exercise such authority as may be delegated to him, by the Purchaser, the Client or the Contractor.
- 59.3 Any such delegation or revocation shall be in writing and shall not take effect until notified to the other parties to the Contract.
- 59.4 Any decision, instruction or approval given by the Authorized Representative, in accordance with such delegation, shall have the same effect as though it had been given by the Principal.
- 59.5 Notwithstanding Clause 65.4, any failure of the Authorized Representative to disapprove any Goods or Services or Works shall not prejudice the right of the Client to disapprove such Goods or Services or Works and to give instructions for the rectification thereof.
- 59.6 If the Contractor questions any decision or instruction of the Authorized Representative of the Purchaser / the Client, the Contractor may refer the matter to the Purchaser / the Client who shall confirm, reverse or vary such decision or instruction.

63. Waiver

- 60.1 Failure of either party to insist upon strict performance of the obligations of the other party, under the Contract, shall in no way be deemed or construed to affect in any way the right of that party to require such performance.

64. Training

- 61.1 The Contractor shall arrange and undertake a comprehensive training program for the staff nominated by the Purchaser / the Client to ensure that they shall acquire a good working knowledge of the operation, and general maintenance of the Goods to be supplied under the Contract.
- 61.2 In case of non-compliance with instructions, non-cooperation or other difficulties experienced by the Contractor with regard to any of these personnel, the Contractor shall apprise the Purchaser / Client and proceed to implement suitable remedial measures after consultation with them.

65. Documentation

- 62.1 The Contractor shall furnish the user documentation, the operation manuals, and service manuals for each appropriate unit of the supplied Goods and other information pertaining to the performance of the Goods, in hard copy format, in soft copy format and in the form of on-line help, before the Goods are taken over by the Purchaser.

LOT # 1

Data Center “Technical Specifications References”

Pakistan Information Technology Board (PITB) is planning for a consolidated data center which will serve as hosted DC for all departments of the Govt. of Punjab. It will have a DR facility as active/backup hosted applications.

General Data Center Guidelines

1. The data center switching architecture should be based on three tier architecture with Access, Aggregation and Core layers.
2. The aggregation and Core Switches should support line-rate, low-latency, lossless 10 Gigabit Ethernet for data center applications
3. The datacenter design should be aligned with Tier-3 Classifications of EIA/TIA-942.
4. The vendors will have to ensure that the proposed hardware/software for the data center will be supported for at least 2 years and has an in country commercial deployment reference of at least 2 years
5. Proposed Design should be Spanning tree free so that redundant links can be utilized for better throughput.

Data Center Switching

1.1 Core Switches

General Specifications:

1. The core switches should provide zero-service-loss hardware and software architecture.
2. The proposed switch should support IPv6.
3. The core switch should provide capability for network visibility and control using packet capturing tool.
4. Should support advanced dynamic Routing Protocol and advanced QoS features
5. Should have an air filter to help ensure clean air flow through the system
6. Proper cooling and power efficiencies should be ensured using variable fan speed based on the type of I/O module.
7. Proposed switch should have relevant IEEE,IETF etc Standards compliance
8. There should not be any head of line blocking architecture to avoid any packet loss.

High Availability Requirements

1. The switch should have redundant switch fabrics with state full switchover.
2. The proposed switch must support ISSU (In Service Software Upgrade) with zero packet loss.
3. The core switches should have redundant control/supervisors cards.
4. The proposed switch should have redundant power supplies .
5. The proposed switch should support graceful restart in addition to State full process restart for L2 & L3 protocols
6. The proposed switch should provide Non Stop Forwarding during supervisor switchover.

7. The switch should have redundant hot swappable fan trays .
8. The switch should have separate fans for line cards and fabric for proper cooling.
9. Online insertion and removal (OIR) of all redundant components: Supervisor, fabric, power supply, and fan trays etc.
10. Dual redundant Ethernet out-of-band channels to each module and fabric to provide resilience.

Capacity Requirements

1. The Core switch shall support switching fabric capacity of 3 Tbps or higher
2. Proposed switch should support 400 million packets per second (IPv4) or higher
3. The core switches should support minimum 80 Gbps per slot with upgrade path to higher throughput capacity per slot.
4. The proposed switch shall support high density of 10G interfaces with minimum of 200 x 10G ports per switch.
5. Proposed Switch should have MAC address scalability for applications like VMWARE etc , support of at least 100K MAC per line card is required
6. Each line card should support ACL entries minimum of 50K
7. The core switch should have at least 8 I/O slots for line cards

Standards and Protocol support

1. Supports Simple Network Management Protocol Versions 3, 2c, and 1
2. Should support XML and Scriptable command-line interface
3. Proposed routers should be able to support MAC in IP for layer 2 extensions across different data centers independent of infrastructure technology for VM mobility.
4. Proposed core switches shall be able to extend layer 2 over IP network without using MPLS/VPLS.
5. All line card interfaces should have built-in IEEE 802.1AE MAC security
6. Should support Deficit-Weighted Round-Robin and Shaped Round-Robin
7. Data confidentiality and integrity conform to the IEEE MAC security.
8. Should support SPAN and Eth-analyzers
9. Proposed hardware should support configuration management like “roll back” and Role Based Access Control.
10. Should support major layer 3 protocols like :Open Shortest Path First Protocol Versions 2 (IPv4) and 3 (IPv6), Intermediate System-to-Intermediate System Protocol, Border Gateway Protocol, Routing Information Protocol Version 2
11. Proposed Core Switch should support standard protocols like : Dynamic Host Configuration Protocol Helper, Unicast Reverse Path Forwarding for IPv4 and IPv6, Virtual Router Redundancy Protocol for IPv4, Gateway Load Balancing Protocol
12. Proposed Switch should support IP Multicast in hardware with protocols : Protocol Independent Multicast, Source-Specific Multicast for IPv4 and IPv6, PIM Sparse Mode, Bidirectional PIM for IPv4 and IPv6

Line Card: 30 Port 10GbE

1. 10G fiber based ports
2. Should support hot insertion and removal of the card in the chassis without any system disruption
3. Should have fully distributed architecture
4. All ports should have MAC security
5. Proposed card should have at least 8 or more queues per port

Line Card: 48 Port 1G with SFP port

1. Proposed card must have all SFP based 1G ports
2. Should have fully distributed architecture
3. All ports should have MAC security
4. Should support hot insertion and removal of the card in the chassis without any system disruption
5. Proposed card should have at least 8 or more queues per port

Line Card: 48 Port 10/100/1000, RJ-45

1. Proposed card must have all SFP based 1G ports
2. Should have fully distributed architecture
3. All ports should have MAC security
4. Should support hot insertion and removal of the card in the chassis without any system disruption
5. Proposed card should have at least 8 or more queues per port

***Note:** The bidder may propose line cards with different denomination of interface ports as long as they meet the capacity and scalability requirement.*

Supervisor Module

1. Proposed Supervisors must support Active and standby supervisor
2. Segmented and redundant out-of-band provisioning and management paths
3. Virtualization of the management plane for ease of operations
4. Integrated diagnostics and protocol decoding
5. Proposed hardware should support online insertion and removal for high Availability perspective

10G BASE-SR SFP Module

All 10G ports should support MM SFP

1000BASE-SX SFP

Short Range 1G Standard SFP

Fiber Patch Cords, for complete solution

Please quote required patch cords with proper lengths as per design proposed

2.1 Aggregation Switches

The aggregation switch shall provide Low-latency for high-performance computing applications.

General System Requirements

1. The proposed switch should operate at Layer 2 and aggregate the access layer.
2. All the uplinks from aggregation to core should work in active/active mode.
3. The proposed switch must support unified fabric.
4. Hardware of proposed switch should be capable of L2 Multipath
5. The proposed switching architecture should have native support for FCOE
6. Should support front to back cooling compatible with data center hot-aisle and cold-aisle designs

7. Distribution switch should also be capable of terminating 10GE attached servers in future as well

High Availability Requirements

1. The proposed switch should have redundant power supplies (1+1).
2. The proposed switch should have lossless architecture.
3. Should have hot-pluggable fan modules to provide highly reliable front-to-back cooling
4. Should support in-rack or adjacent-rack cabling.
5. Hot-swappable field-replaceable power supplies, fan modules, and expansion modules
6. Proposed Switch should support N+1 fan module redundancy

Capacity Requirements

1. Should have two expansion module slots for expansion
2. The layer 2 hardware forwarding provided by the proposed switch should be at least 1 Tbps or 750+ Million packets per second.
3. Support for up to 480 VLANs per switch
4. The proposed switch should support minimum 15000 MAC address table entries.
5. The proposed switch should provide line-rate traffic throughput on all the interfaces
6. Should support at least 50 x 10GE interfaces for aggregation

Standard Protocols Support

1. Proposed switch should support *IEEE Data Center Bridging* and IEEE standards
2. Should support Layer 2 Features
3. All standard L2/L3 QoS features
4. Proposed Switch should support management features.

2.1.1 Line Card : 20 x10G on line rate

1. Proposed solution should have at-least 20x 10G interfaces on line rate with scalability up to 50 ports per switch.
2. Proposed switch should support unified fabric
3. These ports can be fixed or modular

2.1.2 Line Card: 4G FC SFP for SAN

1. Standard FC SFP Short Reach

2.1.3 10GBASE-SR SFP Module

1. Standard 10G Short Reach SFP

2.1.4 Fiber Patch Cords, for complete solution

Please quote required patch cords with proper lengths as per design proposed

3.1 Access Switches

General System Requirements

1. Access switches will be used to connect the servers directly as well as other DC devices
2. Provisioning and configuration point for access switches should be from distribution switch
3. Proposed switch should have 1RU form factor to support ToR architecture.

4. Proposed architecture should have hardware based access control lists and VACLs
5. Should support front to back cooling compatible with data center hot-aisle and cold-aisle designs

High Availability requirements

1. The proposed switches should have redundant supervisors/parent switch.
2. All the uplinks from access to aggregation should work in active/active mode.
3. The switch should have redundant fan trays and should be hot swappable

Capacity Requirements

1. Proposed switch should support hardware forwarding at 160 Gbps or 100 million packets per second;

Also support partially below features as:

2. Active VLAN = 3000 +
3. STP Instances = 1000 +
4. Switched Virtual Interfaces = 1500 +
5. Security and QoS Entries = 25,000 +
6. 1/10G Ports = 32 or more
7. 10G Uplink ports = 6x10G or more

Standard Protocols Supported : Support for HA protocols like VRRP, GLBP etc, Must support all common Layer 3 IP Unicast and multicast routing protocols, Layer 2 Features, QoS, Security

3.1.1 1/10GBASE-Short Reach SFP Fiber Module

Standard SFPs for 1G and 10G as per the BoQ and mention the supported wavelength in your solution document

3.1.2 Fiber Patch Cords, for complete solution

Required patch cords with proper lengths as per design proposed

4.1 Firewall

General System Requirements

- a. Can support 1G and 10G interfaces
- b. Must support FW and IPS functionality in the same hardware
- c. IPS should be supported in hardware
- d. Proposed Firewall must support multiprotocol FW functionality
- e. Should have support of optical and copper interfaces

High Availability Requirements

- a. Must have redundant Power Supplies
- b. Proposed firewall should support Active/Active and Active/Standby configuration
- c. Should support VPN clustering and Load balancing
- d. Should support 10G and 1G interfaces
- e. Proposed hardware should support Integrated IPS in hardware

- f. Proposed hardware should have integrated 10/100/1000 interfaces for the management

Capacity Requirements

- a. Proposed Firewall should support 8Gbps of firewall throughput or higher
- b. Should support at least 2Gbps of VPN throughput
- c. Must support 800K concurrent sessions
- d. Should support IPSEC session up to 8K or higher
- e. Should have support of Virtual contexts
- f. Must support virtual interfaces and can scale up to 200 VLANs or higher
- g. Proposed firewalls should support 3Mpps or higher
- h. Can scale up to 12x1G interfaces and 2 x10G interfaces

4.1.1 4-Port 10/100/1000 Interface Card, RJ-45

4 port 10/100/1000 card for copper based connectivity

5.1 Load Balancers

- a. Should have support of 4Gbps or higher of throughput
- b. Must support http header manipulation
- c. Should support deployment in routed and bridged mode
- d. Should support source NAT for Server Farm
- e. Proposed hardware can capture real time network traffic
- f. Should support hardware based compression up to 1.5 Gbps or higher
- g. Proposed hardware should support SSL offload functionality

6.1 Intrusion Prevention

- a. Should support IPS throughput of 3Gbps or higher
- b. Should have redundant power supplies
- c. Should support policy based management
- d. Proposed hardware should have the capacity to detect and block zero day attacks
- e. IPS should have behavioral based anomaly detection
- f. Should support IPv4 and IPv6 based network
- g. Sensors should have support of virtualization
- h. Should have the capability and support for voice based applications
- i. Should support 1G and 10G interfaces in the same hardware

6.1.1 4-Port Copper NIC

4 port 10/100/1000 card for copper based connectivity

7.1 Floor Switches (for LTP Building)

24 Port L2 Switches

- 24 10/100/1000 ports POE
- 02- SFP based GE uplink ports
- VLANs supported should be at least 50
- STP instances should be at least 50 or above
- Jumbo Frame support
- Available POE power should be at least 300 watts and above

Features Set;

The proposed switch must possess the L2 access features; 802.1Q Tunneling, MSTP, Dynamic Trunk Protocol, UDLD, LACP, LLDP, Storm/Broadcast control Features, UDLD-MED

Manageability features : Web-based setup, RMON, SPAN, SNMP, Auto Smart Ports

7.1.1 1GBASE-SR SFP Module

7.1.2 Fiber Patch Cords, for complete solution

8.1 Wireless LAN POE Access Points – (for LTP Building)

- Support POE
- AP and Bridge Mode
- 54 Mbps data Transfer rate,
- Security and remote Management feature built-in
- Additional Antenna support, if required
- Out Door Installation support
- Complete Wall mount Kit and supports
- Web based management software
- Other standard features

8.1.1. Wireless LAN Controller

A wireless controller with system performance for

- (i) System throughput with and without security features enabled
- (ii) Roaming time and access point joins and
- (iii) Downloads with an emphasis on scalability is required to be proposed. The proposed wireless controller should comply with the features mentioned below:

- Demonstrated scalability and reduction in roaming and AP upload times.
- Dedicated multicore control plane
- Separate multicore data plane.
- Over 90% line rate throughput with/without security enabled excluding the header processing overhead.
- Support for up to 500 or above access points, over 6000 clients.
- Should have wire speed, non-blocking performance for 802.11n network.

- should provide both real time and historical information about RF interface impacting network performance across controller.
- Should have a support of multiple SSID tunnels.
- Should allow access points to dynamically establish wireless connection without the need for a physical connection to the wired network.
- Should be able to deliver video applications across wireless network.
- Should have redundant power supplies.
- The power supplies should be hot pluggable.

9.1 IP Sec VPN Solution

- Vendor must propose IPsec VPN solution for the WAN.
- Proposed solution must be optimized for carrying encrypted data, voice and video traffic
- IPsec VPN aggregation router must be able to handle at least 3.5 Gbps or higher of crypto traffic
- IPsec VPN aggregation router must have at least 4 built in Gigabit Ethernet ports
- 15 Mbps forwarding rate or higher
- 3500 IPsec tunnels or higher
- 1800 GRE tunnels or higher
- Support both tunnel and tunnel-less IPsec VPN technologies
- Support IP network services, including quality of service (QoS), MPLS, Layer 2 virtual private network, Layer 3 virtual private network, and IPv6
- Support L3 routing protocols including static, OSPF, BGP
- Role-Based CLI Access control
- SNMP v3 and SSH v2
- Dual AC power supply

10.1 Multi-Service Aggregation WAN Router

- Minimum performance of 150 Mbps when deployed in high speed WAN environments with concurrent services including IP routing, firewall, IPsec VPN and voice enabled.
- Support at least 3 integrated Gigabit Ethernet ports
- Minimum 512 MB RAM and 256 MB flash
- Support at least 4 slots for high speed WAN interface cards
- Support wide range of connectivity options including E1, ISDN PRI/BRI, V.35, xDSL, and copper and fiber GigE WAN Ethernet
- Support integrated Layer-2/Layer-3 PoE and ePoE LAN switching modules
- Support high-density-packet voice DSP modules that are optimized for voice and video
- Support Standards-certified Voice XML browser services
- Support standard based voice gateway functionality for IP Telephony.
- Support IPT Call Control survivability and voice mail services in case of WAN link failure.
- Support embedded hardware-accelerated VPN encryption

12.1 Multiservice Access Router

a) Architecture

1. Support at least 3 integrated Gigabit Ethernet ports
2. Minimum 512 MB RAM and 256 MB flash
3. Should have support of at least 300M
4. Support at least 4 slots for high speed WAN interface cards
5. Support wide range of connectivity options including E1, ISDN PRI/BRI, V.35, xDSL, and copper and fiber GigE WAN Ethernet

b) Multiservice Features

1. Support integrated Layer-2/Layer-3 PoE and ePoE LAN switching modules
2. Support software based application acceleration .
3. Have dedicated slot for application services
4. Support high-density-packet voice DSP modules that are optimized for voice and video
5. Support Standards-certified Voice XML browser services
6. Support IPT Call Control
7. Support high-density-packet voice DSP modules that are optimized for voice and video
8. Support Voice gateway functionality and IPT call control for resilient local voice switching in remote locations
9. Support IPT survivability in case of WAN link failure
10. Support voicemail services
11. Support fully integrated power distribution to modules supporting 802.3af Power over Ethernet (PoE)
12. Support embedded hardware-accelerated VPN encryption
13. Support SSL VPN
14. Support Content filtering

12.2 WAN Interface Card for Access Router

- Minimum 2 ports E1 / PRI Card, supporting Channelizes and WAN (un-channelized) E1/PRI Termination

12.3 PSTN Lines Interface Card for Access Router

- 4 port Interface Cards, supports PSTN lines

12.4 Office LAN Access Switch (Layer 2)

Minimum 48 10/100 PoE + 2T/SFP or 2 1000BT Ethernet uplink ports
Minimum switching bandwidth 30 Gbps
Minimum Forwarding bandwidth 14 Gbps
02- SFP based GE uplink ports
VLANS supported

12.5 WARRANTY

The Defects Liability Period shall be a minimum of 365 days from the hardware Delivery Date.

During the Defects Liability Period, PITB expect any defects of whatever nature will be repaired / corrected by the Supplier free of any charge.

Following this period, Respondents are required to provide details on the existence of extended warranty periods that may be available.

Hardware replacement

The manufacturer / bidder must maintain stock in country for immediate replacement. Any faulty item declared should get replaced within country and directly delivers at PITB location. The bidder needs to provide the following options;

- 24x7x4 part replacement for critical items

Principal Technical Centre Support

The warranty should also cover;

7x24 Technical Centre manufacturer Support for any technical issues in network, minor Software upgrades and related issues

Managed Operations / Assisted Operations

The Supplier should explain the both options of Managed / Assisted Operations for the support of Punjab Information Highway covering all network elements including media. The terms of the operations will subject to the following requirements;

- The supplier must have a dedicated team for support at least two 'Top level certified' resources in Lahore and 'Mid-Level Certified' resources in North and south of the province.
- The scope of Managed Services will cover the entire infrastructure (including media, hardware. software) which will be deployed by the Supplier.
- Supplier should provide resources, management tools, processes and KPI's to meet these SLAs.
- Network availability 24x7 for 365 days
- Some services may be asked on demand also
- Business Continuity without any interruption
- Supplier should provide proactive maintenance to prevent issues from occurring. Establishing a Scheduled Maintenance Plan which is customised to identify regular service tasks and responsibilities
- Supplier should provide issues as soon as they occur through early warning systems and remote monitoring services

- Supplier should respond operational and other issues quickly through support escalation procedures
- Supplier should provide Accountability through online portals and monthly statements of support activity
- Supplier should provide the names and skill set of all professionals and experienced engineers who are going to manage the services for PITB with a planned, predictable approach.

LOT # 2

Network Operation Center – NOC: ‘Technical Specifications References’

13.1 Display Screen Cube:

Diagonal size of the display modules shall be minimum 45” or more and four horizontal by two vertical

Display Specifications:

Minimum WXGA resolution LED backlit LCD modules
Narrow Bezel to ensure exceptionally small seams.
Screen Gap less than 6 - 7mm
High brightness, excellent contrast and a wide viewing angle
Low humidity expansion/absorption
Non glare easy clean surface
Resolution: at least WXGA 366 x 768px pixel native
Brightness: 450 Cd/m2 or more
Contrast ratio: at least 2500:1
Image Size: WxH = as per screen diagonal size
Inputs: 1x DVI, 1x RS232 minimum
Viewing angle of more than 178 degrees
10 bit color resolution with more than 1 billion colors
Anti Image Retention Circuitry to ensure no permanent image burn-in
Front access to ensure easy maintenance & service

13.2 Split Controller:

Should feature built-in integration of digital and analog video and data sources
Should allow users to place windows of any size anywhere on the video wall, without any compromises on quality
The split controller shall provide independent color depth selection of video, RGB, and graphic window
The controller should support the display of real-time video sources
The controller shall feature redundant, hot-swappable critical components for high overall system reliability including Redundant hot-swap power supplies, Redundant hot-swap RAID Level 1 or RAID Level 5 hard disk, Redundant Ethernet adapter
The redundancy components shall be continuously monitored; audio and video alarms shall be triggered in case of failure
The controller should support video outputs up to 1920 x 1200 pixels and HD Format
The controller should provide real-time source display
The controller shall be equipped with Intel Core 2 Duo processor technology.
The controller should support both RGB & DVI inputs
The controller should have minimum of 8 DVI Outputs
Inputs of 8 Real-time DVI/RGB inputs, image resolution 1920 x 1200 pixel and should display real-time input sources.
The Outputs should be 8 DVI, maximal image resolution 1920 x 1200 pixel.

13.3 Control Software:

Simple GUI for the configuration of the wall management software

Administration: Privileges, hierarchical administration and division of the large screen wall into different areas can be defined for every user

Multiple display walls can be controlled simultaneously.

Multiple users can operate the large screen system simultaneously.

Control the full range of analog video, streaming video sources, RGB computer images, local and server applications residing on the LAN.

Enable operators to access and display the screen contents of any Windows workstation in the LAN as well as control it with the local keyboard and mouse without a need for special hardware.

Software has to allow comfortable desktop management :

Dynamic window administration

Definition of presets layouts

The software must enable the control of the wall-desktop with the local keyboard and mouse of the operator-workstation via LAN.

The software must provide certain alarm management tools, i.e. incoming alarm messages and business critical alarms can be detected and visualized automatically.

Operating systems: WINDOWS / UNIX / LINUX

13.4 NOC Touch Screen Control Interface:

Display Type TFT active matrix color LCD

Size Minimum 8 inch diagonal or more

Aspect Ratio 4:3 SVGA

Resolution 800 x 600 pixels or better

Contrast 500:1 or better

Color Depth 18-bit, 262k colors or better

Touchscreen Enabled

Hard Keys Programmable pushbuttons below touchscreen

Thumb pad Programmable 5-way thumb pad

Security Fingerprint scanner; Identifies minimum 30 users by fingerprint

WiFi Supported / Enabled

Memory Flash / RAM / Storage on board – built-in

13.5 NOC Cables:

Includes all type of required Cable for Power, Data, DVI, Fiber Interconnect and other type for complete solution.

SPECIAL STIPULATIONS

SCHEDULE- A: SPECIAL STIPULATIONS	
For ease of reference, certain Special Stipulations are as under:	
Tender Security	The Tenderer shall furnish the Tender Security as under: for the whole Tender; if Total Tender Price is less than or equal to PKR 5 Million, in the form of Demand Draft / Pay Order / Call Deposit Receipt, in the name of the Purchaser; if the Total Tender Price is more than PKR 5 Million, in the form of Bank Guarantee, issued by a scheduled bank operating in Pakistan, in the name of the Purchaser, as per the format provided in the Tender Document or in another form acceptable to the Purchaser; for a sum equivalent to 2% of the Total Tender Price; denominated in a currency of the Tender; Have a minimum validity period of ninety days from the last date for submission of the Tender or until furnishing of the Performance Security, whichever is later.
Performance Security	The successful Tenderer shall furnish Performance Security as under: within three working days of the receipt of the Acceptance Letter from the Purchaser; in the form of a Bank Guarantee, issued by a scheduled bank operating in Pakistan, as per the format provided in the Tender Document or in another form acceptable to the Purchaser; for a sum equivalent to 10% of the contract value; denominated in a currency of the Contract; Have a minimum validity period of ninety days from the date of Award Notification or until the date of expiry of warranty period, whichever is later.
Delivery Point of Goods & Services	The Contractor shall deliver the Goods at various Punjab Government Offices in Punjab, as specified by the Purchaser at the time of delivery.
Start operation of Services after installation, configuration, deployment, commissioning, testing, and training.	Within twelve 12 weeks from the commencement date of Contract.
Liquidated damages for failure / delay in supply / Installation / configuration of Goods / Services / Works by the Contractor	a sum of money @.25% of the Contract Price which is attributable to such part of the Goods / the Services / the Works as cannot, in consequence of the failure / delay, be put to the intended use, for every day between the scheduled delivery date(s), with any extension of time thereof granted by the Purchaser, and the actual delivery date(s). Provided that the amount so deducted shall not exceed, in the aggregate, 50% of the Contract Price.

TENDER FORM

To:

Purchase officer
Punjab Information Technology Board
15-1-C, Model Town, Lahore

Gentlemen:

1. We, [Name and Address of the Tenderer], having read, understood and accepted the Tender Document, including the Addendum(s), if any, offer to supply, install, configure, test, train and support the Goods and the Services, in conformity with the said Tender Document, to [Name and Address of the Purchaser], for the Total Tender Price of PKR (in figures _____) (in words _____), in accordance with the Price Schedule and the timeline, attached hereto and made part of the Tender.
2. We undertake that the Tender shall have a minimum validity period of ninety days from the last date for submission of the Tender and may be accepted at any time before the expiration of that period.
3. We undertake to provide the Performance Security to give satisfactory assurance of our ability and intention, for due performance / execution of the Contract in accordance with the terms and conditions of the Contract, in case of acceptance of the Tender.
4. We undertake that we are / shall be represented by an agent in that country equipped and able to carry out the maintenance, repair and spare parts stocking obligations prescribed in the Terms and Conditions of the Contract and / or the Technical Specifications, in case of acceptance of the Tender and of not doing business within the Purchaser's country.
5. We undertake to be bound by the Tender and the Acceptance Letter, which shall constitute a contract, until execution of the formal Contract.

Date this _____ day of 2011.

TENDERER

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

WITNESSES

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

Note: The Tender Form should be on the letterhead of the Tenderer.

AFFIDAVIT

1. We, [Name and Address of the Tenderer], do hereby declare on solemn affirmation that:
2. We have not been black listed from any Government Department / Agency.
3. We have not been involved in litigation with any client during the last 3 years.
4. We acknowledge that we have read, understood and accepted the Tender Document.
5. We understand that the Purchaser shall have the right, at his exclusive discretion, to require, in writing, further information or clarification of the Tender, from any or all the Tenderer(s).
6. We understand that the Purchaser shall have the right, at his exclusive discretion, to increase / decrease the quantity of any or all item(s), accept / reject any or all tender(s), cancel / annul the Tendering process at any time prior to award of Contract, without assigning any reason or any obligation to inform the Tenderer of the grounds for the Purchaser's action, and without thereby incurring any liability to the Tenderer and the decision of the Purchaser shall be final.

Date this _____ day of 2011.

TENDERER

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

WITNESSES

Signature	_____	Signature	_____
CNIC #	_____	CNIC #	_____
Name	_____	Name	_____
Designation	_____	Designation	_____
Address	_____	Address	_____

Note: The Tender Form should be on the letterhead of the Tenderer.

PRICE SCHEDULE

LOT #: 1

BOQ for DATA CENTER AT LTP BUILDING

Sr. No	RFP Reference	Type	Description	Qty
	Refer RFP Reference Number, as shown below in "Technical Specifications"			
1	1.1	Core Switch with power supplies	Core Switch with minimum 10 Slot Chassis and minimum 46Gbps/Slot Fabric Module, Redundant (n+1) AC power Supplies	2
	1.1.1	Line Card/ Switch Modules	Line Card: 30 Port 10GbE, and support back plan minimum 80G Fabric (Fiber Based)	2
	1.1.2	Line Card/ Switch Modules	Line Card: 48 Port 1G SFP ports (Fiber Based)	2
	1.1.3	Line Card/ Switch Modules	Line Card: 48 Port 10/100/1000, RJ-45	2
	1.1.4	Line Card/ Switch Modules	Supervisor Module, Includes External 8GB Log Flash with Operating System	4
	1.1.4	Fiber Module for SFP Ports	10GBASE-SR SFP Module for Multimode Optical Fiber	24
	1.1.5	Fiber Module for SFP Ports	1000BASE-SX SFP, for Multimode Optical Fiber	72
	1.1.6	Fiber Patch Cords	Fiber Patch Cords, for complete solution for above defined SFPs	Solution
2	2.1	Aggregation Switch with power supplies	Aggregation Switch with 8G Fiber Channel Unified Fabric LC, Storage Protocol Services license, 2 Power Supply Module, Power cord	2
	2.1.1	Line Card/ Switch Modules	18 x10G on line rate, 2 x 8 Gbps Fiber Channel SW SFP+	2
	2.1.2	FC SFP Optics	4G FC SFP for connectivity with SAN	16
	2.1.3	10G SFP Optics	10GBASE-SR SFP Module	36
	2.1.4	Fiber Patch Cords	Fiber Patch Cords, for complete solution for above defined SFPs	Solution
3	3.1	Access Switch	Access Switch 1/10GE, 2x Power Supply, 1 Fan Module	8
		Interfaces	30x1/10GE Access Ports, 6x10G uplink ports	8
	3.1.1	Fiber Module for SFP Ports	1/10GBASE-Short Reach SFP Fiber Module	100
	3.1.2	Fiber Patch Cords	Fiber Patch Cords, for complete solution for above defined SFPs	Solution
4	4.1	Firewall	Firewall, Security Plus Firewall Edition,	2
			Includes 8 Gigabit Ethernet interfaces, 2 x 10 Gigabit Ethernet SFP	
			Interfaces, 2 Gigabit Ethernet management interfaces, 10,000+ IPsec	

			VPN peers, 2 SSL VPN peers, dual AC power, 3DES/AES license, AC Power Supply	
			Inclusive of all relevant licenses	
	4.1.1	Interface Cards	4-Port 10/100/1000 Interface Card, RJ-45	2
5	5.1	Load Balancers	Load balancer Appliance, 4 Gbps License	2
6	6.1	Intrusion Prevention	Intrusion Prevention - IPS with 2-port 10GE NIC	2
	6.1.1	Interfaces	4-Port Copper NIC with bypass	2
7	7.1 (a,b) (for LTP)	Floor LAN Access Switch (Layer 2)	LAN Access switch: 24 x 10/100 PoE with 2 x 1G SFP	48
	7.1.1	Fiber Module for SFP Ports	1G BASE-SR SFP Module MM supported	96
	7.1.2	Fiber Patch Cords	Fiber Patch Cords, for complete solution for above defined SFPs	Solution
8	8.1 (for LTP)	Wireless LAN Access Points POE	Wi-Fi Access Points with Management and Security with Antenna	42
	8.1.1	Wireless LAN Controller Manageable Software base Device	Wireless LAN Controllers (Server based, manageable , software with hardware)	2
9	9.1	IPSec VPN Solution	Head-End IPSec VPN Router with 4 Gigabit Ethernet ports, 4 Gbps IPSec VPN traffic with 4k tunnels, dual power supplies,	2
10	10.1	Multi Service WAN Aggregation Router	Aggregation Router with 3 x 10/100/1000 and 2 10/100 Layer 3 Ethernet ports, minimum (2x3)=6 E1 PRI port, IPSec VPN, VoIP support with on board DSPs optimized for voice and video with 02-power supplies	2
11	12.5	Warranty	All above equipment must have minimum of 3 year warranty and availability of spare parts Next Business Day	End-to-End Hardware

PUNJAB INFORMATION HIGHWAY - HARDWARE & SERVICES

Sr. No.	RFP Ref.	Type	Description	Qty
1	12.1	Multi Service WAN Router	Router with support of minimum 3 x 10/100/1000 Layer 3 Ethernet ports, IPSec VPN, VoIP support with on board DSPs optimized for voice and video, must support IP Telephony survivability for minimum of 20 IP phones, Storage to host 3rd party and custom application with minimum storage capacity of 500GB;	36
2	12.2	WAN Interface Card for Routers	Minimum 2 ports E1 / PRI Card, supporting Channelizes and WAN (un-channelized) E1/PRI Termination	36
3	12.3	PSTN Lines support Interface Card for Router	4 port FXO Interface Cards	36
4	12.4	Office LAN Access Switch (Layer 2)	LAN Access switch: 48 x 10/100 PoE + 2 1000BT Ethernet ports	36
5	12.5	Warranty	All above equipment must have minimum of 3 year warranty and availability of spare parts Next Business Day	End-to-End Hardware

BOQ for DATA CENTER ITEMS at LTP Building

Sr No.	Description	Qty
1	Power DB for Data Centre Racks	
	Electrical PDU with 126 Pole	1
	Three Phase Electrical PDU. Three Phase & Single Phase Distribution with plugin type circuit breakers	
	96 Breaker of 32 AMPs (SP)	
	10 Breakers of 40Amps (TP)	
	Branch Circuit Monitoring & Main Circuit monitoring	
	SNMP for remote Monitoring	
	Installation and Commissioning	1 job
	Power Cable, Fittings, Cable Ladders & Accessories (Payment on Actual Basis)	
1	300 mm, 1 core cable (as per Data Center -Tier-3 Standards)	1000 Mtr
2	70mm Earthing Cable (as per Data Center -Tier-3 Standards)	300 Mtr
3	150mm, 5Core for 160KW UPS System (as per Data Center -Tier-3 Standards)	500 Mtr
4	10mm, 3 Core for Ind. Sockets (as per Data Center -Tier-3 Standards)	5000 Mtr
5	5 Pin 32 A Industrial Sockets	20 Nos.
6	3 Pin 32 A Industrial Sockets	192 Nos.
7	Hot Dipped Galvanized Cable Ladder for Power & Data cable	250Mtr
8	Power Cable and Data Cable fitting and laying Accessories	Job
9	Laying & Termination	Job
	DATA RACKS, 42U	
1	42U, Data Rack, (800x1000 .or. 800x1100)	20 Nos
	Perforated Doors front and back side	
	Cooling Fans minimum 4 Nos.	
	Fixed Trays minimum 3,	
	Moveable / Rack mount minimum 1 tray	
	Lock system	
	standard Accessories	
	Cable Management inside Rack	
	Preferably BLACK Color	
	Wheels and Fix Fittings of Rack (both supported)	
	IP Based PDU for Racks	
1	Switched PDU (32 Amp)	60 Nos
	Output Socket Type :	
	IEC 320 C13+ (14 or more) 32 AMP	
	IEC 320 C19 (02 or more)	
	Voltage 200V - 240V	
	RJ 45 Ethernet port for IP	
	Input Frequency 50 - 60 Hz	
	Minimum 3 meters cable with (01- IEC 320 309) Input Socket.	
	Nominal Voltage 230 V	

	Circuit Breakers Protection	
	SNMP, CD Software, IP Enabled, Enabled, Circuit Breaker, power ON/OFF controlled from Network, Power Management Software (English), Event Alerts, Audible Alarms, User manual,	
	Rack Fittings mounting Brackets etc.	
	Warranty : 02- years repair or replacement	
	<u>Regulatory Approvals</u>	
	CE,EN 55022 Class A,EN 55024,EN 61000-3-2,EN 61000-3-3	
	Environmental Compliance	
	RoHS Exemption	
	01 / 10 Gbps supported UTP, Optical Fiber Patch Cords and Accessories	
	SC to SC 3 Meter (MM)	100
2	SC to SC 15 Meter (MM)	100
3	SC to SC 25 Meter (MM)	100
4	SC to SC 35 Meter (MM)	100
5	SC to LC 3 Meter (MM)	100
6	SC to LC 15 Meter (MM)	100
7	SC to LC 25 Meter (MM)	100
8	SC to LC 35 Meter (MM)	100
9	UTP Cat 6 RJ-45 to RJ-45 drop Cord 3 Meter	200
10	UTP Cat 6 RJ-45 to RJ-45 drop Cord 1 Meter	150
11	UTP Cat 6 RJ-45 to RJ-45 drop Cord 10 Meter	100
12	UTP Cat 6 RJ-45 to RJ-45 drop Cord 20 Meter	100
13	UTP Cat 6 RJ-45 to RJ-45 drop Cord 25 Meter	100
14	UTP Cat 6 RJ-45 to RJ-45 drop Cord 35 Meter	100
15	CAT-6E UTP Cable for One Gbps Support	10 Rolls

Existing Network & Datacenter Hardware Upgrade

Sr. No.	RFP Ref.	Type	Description	Qty
		Network Equipment	ACE blade for 6500 with 4Gbps License, SSL License, 5000 TPS, Virtualization 20 Contexts	2
1		Network Equipment	Firewall blade for 6500 with License	1
2		Network Equipment	600M IDSM-2 Mod for 6500	1
3		Network Equipment	N5010 FC Unified Fabric with 4x10G-CU and 6x10G-SR SFP	2
4		Network Equipment	Upgrade to UCM 8.X / latest version	1
5		Network Equipment	C6K 8 port 10 GE module with DFC3C (req. X2),	2
6		Network Equipment	10GBASE-SR X2 Module	4
7		Network Equipment	N2000 GE with 48x100/1000-T+4x10GE, 2x10GBASE-SR SFP Module	4
8		IP Phones/Terminals	Cisco 6921 IP Phones	75
9		IP Phones/Terminals	Cisco 7945G IP Phones with color display	20
10		IP Phones/Terminals	SIP Video End Points EX60 & EX90	10
11		IP Phones/Terminals	Cisco 7962G IP Phones with Expansion Modules	5
12		IP Phones/Terminals	Cisco 9951 Video IP Phones	5
13		IP Phones/Terminals	Attendant Console Cisco Unified Department Attendant Console	1

LOT #: 2

BOQ for Network Operation Center - NOC at LTP BUILDING

Sr. No.	RFP Reference	Type	Description	Qty
	Refer RFP Reference Number, as shown below in "Technical Specifications"			
1	13.1	Display Screens - Cube	Minimum 45" or more WXGA (1366 x 768px) LED Lit LCD Display	8
			01-DVI Input & 01- RS232 Input	
			DMD-Chip XGA/DDR	
			Adjustable Fitting Hardware	
			(Infrastructure for complete job)	
2	13.2	Split Controller	Intel Core 2 Duo Processor	1
			with 2 GHz & 2 GB Ram or Higher	
			Minimum 12 DVI/RGB Inputs, 8 DVI outputs or Higher with minimum 1920 x 1080 resolution per output	

3	13.3	Control Software	Wall Setup software: Simple GUI for the configuration of the wall management software	1
			Control Software Operating Systems: Windows / Unix / Linux	
4	13.4	Touch Screen Panel	Touch Screen Panel, Programmable, Multi Function Controls	1
			Internal Battery: Lithium Ion 1000MAH or higher	
			Universal Power Supply / Charger	
			Desktop Docking Station/Charger	
			Biometrics Access Control	
			Wi-Fi Support	
5	13.5	Cables & Accessories	NOC Cables (for Full Job), include Power, Data, OF and other type required for complete solution + Installation and commissioning	Full Job
6		UPS for NOC	10KVA or higher Online UPS	1
			Three Phase In Three Phase Out with Option of Single Phase Output	
			Efficiency above 95%	
			2-3 Minutes Backup Time at Full Load	
			SNMP Card for remote monitoring	
			SNMP Card for remote monitoring	

TENDER SECURITY FORM

WHEREAS [Name and Address of the Tenderer] (hereinafter called "the Tenderer") has submitted Tender against Tender No. _____ (hereinafter called "the Tender") to the [Name and Address of the Purchaser] (hereinafter called "the Purchaser") for the Total Tender Price of PKR (in figures _____) (in words _____).

AND WHEREAS [Name of the Bank] having registered office at [Address of the Bank] (hereinafter called "the Guarantor") has agreed to give the Tenderer a Guarantee;

THEREFORE the Guarantor hereby affirms to bind himself, his successors and his assigns to the Purchaser, for the sum of PKR (in figures _____) (in words _____) and undertakes to pay to the Purchaser, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Purchaser having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any / all of the following conditions:

1. If the Tenderer withdraws the Tender during the period of the Tender validity specified by the Tenderer on the Tender Form; or
2. If the Tenderer does not accept the corrections of his Total Tender Price; or
3. If the Tenderer, having been notified of the acceptance of the Tender by the Purchaser during the period of the Tender validity, fails or refuses to furnish the Performance Security, in accordance with the Tender Document.

Provided that the Purchaser shall specify the occurred condition(s) owing to which the said sum is due to him.

Provided further that any demand(s) / claim(s) from the Purchaser shall reach the Guarantor within thirty working days after the expiry of the Guarantee.

This guarantee shall remain valid up to _____ or until furnishing of the Performance Security, whichever is later.

Date this _____ day of 2011

.

GUARANTOR

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

PERFORMANCE SECURITY

WHEREAS [Name and Address of the Contractor] (hereinafter called "the Contractor") has agreed to supply the Goods and render the Services against Tender No. _____ (hereinafter called "the Contract") for the Contract Value of PKR (in figures _____) (in words _____).

AND WHEREAS it has been stipulated in the Tender Document that the successful Tenderer shall furnish Performance Security, within three working days of the receipt of the Acceptance Letter from the Purchaser, in the form of a Bank Guarantee, issued by a scheduled bank operating in Pakistan, as per the format provided in the Tender Document or in another form acceptable to the Purchaser, for a sum equivalent to 10% of the contract value, valid from the date of issue until all obligations have been fulfilled in accordance with the Contract;

AND WHEREAS [Name of the Bank] having registered office at [Address of the Bank] (hereinafter called "the Guarantor") has agreed to give the Contractor a Guarantee;

THEREFORE the Guarantor hereby affirms to bind himself, his successors and his assigns to the Purchaser, for the sum of PKR (in figures _____) (in words _____) and undertakes to pay to the Purchaser, upon receipt of his written demand(s), any sum(s) as specified by him, not exceeding the above limit in aggregate, without cavil / argument and without the Purchaser having to substantiate / prove or to show grounds / reasons for such claim(s), on the occurrence of any / all of the following conditions:

1. If the Contractor commits a default under the Contract;
2. If the Contractor fails to fulfill any of the obligations under the Contract;
3. If the Contractor violates any of the provisions of the Contract.

Provided that the Purchaser shall specify the occurred condition(s) owing to which the said sum is due to him.

Provided further that any demand(s) / claim(s) from the Purchaser shall reach the Guarantor within thirty working days after the expiry of the Guarantee.

This guarantee shall remain valid up to _____ or until all obligations have been fulfilled in accordance with the Contract, whichever is later.

Date this _____ day of 2011.

GUARANTOR

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

CONTRACT

This Contract is made on _____ 2011 at Lahore

Between

[Name & Address of the Purchaser] (hereinafter referred to as "the Purchaser") of the one part

And

[Name & Address of the Contractor] (hereinafter referred to as "the Contractor") of the other part

Which expression shall include their respective heirs, legal representatives, successors, assignees & nominees.

For

supply of Computer Software, Hardware, Computer Peripherals, Computer Accessories, Networking Equipment, Office Equipment, Office Furniture, UPS, Power Generator, etc. (hereinafter referred to as "the Goods") and for installation, configuration, deployment, commissioning, testing, training, after-sale support, etc. of said Goods (hereinafter referred to as "the Services").

1. The Contractor hereby covenants with the Purchaser to supply the Goods and provide the Services and to remedy defects / damage therein, at the time and in the manner, in conformity in all respects with the provisions of the Contract, in consideration of the payments to be made by the Purchaser to the Contractor.
2. The Purchaser hereby covenants with the Contractor to pay the Contractor, the Contract Price or such other sum as may become payable, at the times and in the manner, in conformity in all respects with the provisions of the Contract, in consideration of supply of the Goods and provision of the Services and remedying of defects / damage therein.
3. The following shall be deemed to form and be read and construct as part of this Contract:
 - a. The Tender Document
 - b. Terms and Conditions of the Contract
 - c. Special Stipulations
 - d. The Technical Specifications
 - e. Tender Form
 - f. Price Schedule
 - g. Affidavit
 - h. Authorized Dealership / Agency Certificate
 - i. Financial Summary
 - j. Tender Security
 - k. Performance Security
4. This Contract shall prevail over all other documents. In the event of any discrepancy / inconsistency within the Contract, the above Documents shall prevail in the order listed above.

5. IN WITNESS whereof the parties hereto have caused this Contract to be executed, in the presence of the witnesses and in accordance with their respective laws, the day and the year first above written.

PURCHASER

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

CONTRACTOR

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

WITNESSES

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____

Signature _____
CNIC # _____
Name _____
Designation _____
Address _____