PUNJAB INFORMATION TECHNOLOGY BOARD (PITB)

CORRIGENDUM

Procurement of:

i. Core Network/IT Equipment for PITB Data Center. Tender No. 109082019-2.

ii. Networking for "Hepatitis Prevention & Treatment Centers and Departments of Gastroenterology" Tender No: 308082019-1.

1. The above mentioned tenders have been published in The Nation dated 08-08-2019 and Daily Nawa-i-Waqat dated 07-08-2019 bearing IPL No. 7148.

2. The Corrigendum is published to notify the following:

   i. Delivery Timelines, Payment terms and End of support of tender document "**Procurement of Core Network/IT Equipment for PITB Data Center** has been updated.

   ii. Tender submission date of tender document "**Procurement of Networking for "Hepatitis Prevention & Treatment Centers and Departments of Gastroenterology"** has been updated.

   iii. The tenders submission date has been changed from 26th August, 2019 to 12th September, 2019.

   iv. The amended tender document is available at www.pitb.gov.pk and www.ppra.punjab.gov.pk.

3. Bids should be dropped in the prescribed tender box as per the procedure mentioned in the tender document not later than 1200 hours on last date of submission of bids i.e. **12th September, 2019** and the bids shall be opened at 1230 hours on the same date, as per PPRA Rules, 2014.

4. Other terms and conditions given in above mentioned original tender advertisement shall remain the same.

DIRECTOR (DEVELOPMENT & PROCUREMENT)
Punjab Information Technology Board (PITB)
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(IPL-7633)

Tender Document

Tender No. 109082019-2C

Procurement of Core Network/ IT Equipment for PITB Data Center

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Punjab Information Technology Board (PITB)

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Important Note:

Bidders must ensure that they submit all the required documents indicated in the Bidding Documents without fail. Bids received without, undertakings, valid documentary evidence, supporting documents and the manner for the various requirements mentioned in the Bidding Documents or test certificates are liable to be rejected at the initial stage itself. The data sheets, valid documentary evidences for the critical components as detailed hereinafter should be submitted by the Bidder for scrutiny.

Applicability of Punjab Procurement Rules, 2014

This Bidding Process will be governed under Punjab Procurement Rules, 2014, as amended from time to time and instructions of the Government of the Punjab received during the completion of the project.

1. Invitation to Bid

1.1 PPRA Rules to be followed

Punjab Procurement Rules, 2014 will be strictly followed. These may be obtained from PPRA's website.

In this document, unless otherwise mentioned to the contrary, "Rule" means a Rule under the Punjab Procurement Rules, 2014.

1.2 Mode of Advertisement(s)

As per Rule 12(1&2), this Tender is being placed online at PPRA's website, as well as being advertised in print media.

As per Rule 12(2), this Tender is also placed online at the website of Purchaser. The tender document is available in the office of Punjab Information Technology Board, 13th Floor, Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore & the same may be obtained subject to the payment of cost of printing and provision of the document which is Rs. 1000/-. Tender Document is also available at **www.pitb.gov.pk** and **www.ppra.punjab.gov.pk** and may be downloaded free of cost.

All prospective bidders are required to collect a Challan Form from the Procurement Assistant, PITB at above given address; to submit an amount of Rs. 1,000/- in PITB's account. The deposit slip / Challan Form must accompany respective bid.

1.3 Type of Open Competitive Bidding

As per Rule 38(2)(a), Single Stage - Two Envelope Bidding Procedure shall be followed. The said procedure is reproduced as follows:

(i) the bid shall be a single package consisting of two separate envelopes, containing separately the financial and the technical proposals;

(ii) the envelopes shall be marked as "Financial Proposal" and "Technical Proposal";

(iii) in the first instance, the "Technical Proposal" shall be opened and the envelope marked as "Financial Proposal" shall be retained unopened in the custody of the procuring agency;

(iv) the procuring agency shall evaluate the technical proposal in the manner prescribed in advance, without reference to the price and shall reject any proposal which does not conform to the specified requirements;

(v) during the technical evaluation no amendments in the technical proposal shall be permitted;

(vi) after the evaluation and approval of the technical proposals, the procuring agency shall open the financial proposals of the technically accepted bids, publically at a time, date and venue announced and communicated to the bidders in advance, within the bid validity period;

(vii) the financial bids found technically nonresponsive shall be returned un-opened to the respective bidders; and

(viii) the lowest evaluated bidder shall be awarded the contract.

2. Bidding Details (Instructions to Bidders)

All bids must be accompanied by Bid Security (Earnest Money), as part of Financial bid and as per provisions of the clause "Bid Security" of this document in favor of **"Punjab Information Technology Board"**. The complete bids as per required under this tender document, must be delivered into the Tender Box No.1, placed at reception of Punjab Information Technology Board, Lahore, not later than 1200 hours on last date of submission of bids i.e. **12th September, 2019,** late bids shall not be considered. The Technical bids shall be publicly opened in the Committee Room of Punjab Information Technology Board, 13th Floor, Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore, at 1230 hours on **12th September, 2019.** In case the last date of bid submission falls in / within the official holidays / weekends of the Purchaser, the last date for submission of the bids shall be the next working day.

The bidder shall submit bids, which comply with the Bidding Document. **Alternative bids and options shall not be considered**. The attention of bidders is drawn to the provisions of this tender document Clause regarding **"Determination of Responsiveness of Bid" and "Rejection / Acceptance of the Tender"** for making their bids substantially responsive to the requirements of the Bidding Document.

It will be the responsibility of the Bidder that all factors have been investigated and considered while submitting the Bid and no claim whatsoever including those of financial adjustments to the contract awarded under this Bid Process will be entertained by the Purchaser. Neither any time schedule, nor financial adjustments arising thereof shall be permitted on account of failure by the Bidder.

It must be clearly understood that the Terms and Conditions and Specifications are intended to be strictly enforced. No escalation of cost except arising from increase in quantity by the Bidder on the demand and approval of the Purchaser will be permitted throughout the period of completion of the contract.

The Bidder should be fully and completely responsible for all the deliveries and deliverables to the Purchaser.

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

Primary Contact
Sheikh Bilal, Manager Core Networks DC
Email: sheikh.bilal@pitb.gov.pk
Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore, Pakistan.

Ali Raza, Programme Manager (IT Infrastructure)
Email: ali@pitb.gov.pk
Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore, Pakistan.

Haroon Rasheed, Senior Programme Manager (IT Infrastructure)
Email: haroon@pitb.gov.pk
Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore, Pakistan.

Secondary Contact
Sajjad Ghani
Director IT (Infrastructure)
Email: sajjad@pitb.gov.pk
Arfa Software Technology Park, 346-B, Ferozepur Road, Lahore, Pakistan.

Ata-ur-Rahman
Director (Development & Procurement)
Email: ata.rahman@pitb.gov.pk;
Arfa Software Technology Park, 346-B, Ferozepur Road,
Lahore, Pakistan.

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 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 the Secondary Contact.

Bidders are also required to state, in their proposals, the name, title, contact number (landline, mobile), fax number and e-mail address of the bidder's authorized representative through whom all communications shall be directed until the process has been completed or terminated.

The Purchaser will not be responsible for any costs or expenses incurred by bidders in connection with the preparation or delivery of bids.

Failure to supply required items/services within the specified time period will invoke penalty as specified in this document.

TERMS AND CONDITIONS OF THE TENDER

3. Definitions

In this document, unless there is anything repugnant in the subject or context:

3.1 "Authorized Representative" means any representative appointed, from time to time, by the Client, the Purchaser or the Contractor.

3.2 “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.

3.3 "Client" means Project lead of technical wing of the Purchaser for whose’ particular project the Goods / Services have been procured or any other person, duly appointed in writing, by the Client, for the time being or from time to time, to act as Client for the purposes of the Contract.

3.4 “Bidder/Bidder” means the interested Firm/Company/Supplier/Distributors that may provide or provides the I.T related hardware/software/equipment etc. and related services to any of the public/private sector organization under the contract and have registered for the relevant business thereof.

3.5 "Commencement Date of the Contract" means the date of signing of the Contract between the Purchaser and the Contractor.

3.6 "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.

3.7 "Contractor / Vendor" means the Bidder whose bid has been accepted and awarded Letter of Acceptance for a specific item followed by the signing of Contract.

3.8 "Contract Price" means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations.

3.9 "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 apportion-able to the Goods or Services in question.

3.10 "Defects Liability Expiry Certificate" means the certificate to be issued by the Client to the Contractor, in accordance with the Contract.

3.11 "Day" means calendar day.

3.12 "Defects Liability Period" means the warranty/support 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.

3.13 "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.

3.14 "Goods" means hardware, equipment, machinery, servers, software and/or other materials which the Contractor is required to supply to the Purchaser under the Contract against each relevant Lot.

3.15 "Person" includes individual, association of persons, firm, company, corporation, institution and organization, etc., having legal capacity.

3.16 "Prescribed" means prescribed in the Tender Document.

3.17 "Purchaser" means the Punjab Information Technology Board (PITB) 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.

3.18 "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.

3.19 "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.

3.20 “Taking-Over Certificate" means the certificate to be issued by the Client to the Contractor, in accordance with the Contract.

3.21 "Works" means work to be done by the Contractor under the Contract.

3.22 “Eligible” is defined as any country or region that is allowed to do business in Pakistan by the law of Government of Pakistan

4. Headings and Titles

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.

5. Notice

5.1 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:

5.1.1 in writing;

5.1.2 issued within reasonable time;

5.1.3 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

5.1.4 The words "notify", "certify", "order", “consent”, “approve”, "instruct", shall be construed accordingly.

6. Tender Scope

6.1 Punjab Information Technology Board (PITB), (hereinafter referred to as “the Purchaser”) invites / requests Proposals (hereinafter referred to as “the Tenders”) for purchase of the Core Network Equipment including core network switches, top of the rack switches, access switches, WLAN controller, access points, IP telephony and servers (hereinafter referred to as “the Goods”) and for deployment, installation, configuration, testing, training and after-sale support, of said Goods (hereinafter referred to as “the Services”). Technical specifications are attached at **Annexure-A**.

6.2 The equipment / IT equipment / Software will be delivered and deployed in PITB Datacenter, Lahore.

7. Tender Eligibility/Qualification Criteria

7.1 Eligible Bidder/Bidder is a Bidder/Bidder who:

7.1.1 has a registered/incorporated company/firm in Pakistan with relevant business experience of last three (3) years for LOT#1 and one (1) year for LOT#2, 3 & 4 as on;

7.1.2 Must be registered with Tax Authorities as per prevailing latest tax rules (Only those companies which are validly registered with sales tax and income tax departments and having sound financial strengths can participate);

7.1.3 has valid Registration of General Sales Tax (GST) & National Tax Number (NTN);

7.1.4 Has submitted bid for complete lot(s) and relevant bid security against each Lot separately. Non-compliance of the same shall cause rejection of the bid;

7.1.5 must be involved in Data Center design and supply, installation, configuration and technical

support of Core Network switches for last three (3) years and WLAN equipment, IPT Solutions, Servers etc. for last one (1) year as on;

7.1.6 Has authorization of the principal / manufacturer;

LOT#	ITEM	AUTHORIZATION
1	Core Network Equipment	Principal / Manufacturer
2	Upgrade of existing IPT Solution	Principal / Manufacturer
3	Warranties for CISCO ASR	Principal / Manufacturer
4	Servers	Principal / Manufacturer

7.1.7 has not been blacklisted by any of Provincial or Federal Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan. (Submission of undertaking), failing which will cause rejection of the bid for each Lot;

7.1.8 has the required relevant qualified personnel and enough strength to fulfill the requirement of assignment.

7.1.9 Conforms to the clause of "Responsiveness of Bid" given herein this tender document.

7.1.10 Goods and Services can only be supplied / sourced / routed from "origin" in "eligible" member countries.

a. Eligible" is defined as any country or region that is allowed to do business in Pakistan by the law of Government of Pakistan.
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.

Note: Verifiable documentary proof for all above requirements is a mandatory requirement, noncompliance will lead to disqualification.

8. Tender Cost

The Bidder 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.

9. Joint Venture / Consortium

Joint venture / Consortium are not eligible for this tender.

10. Examination of the Tender Document

The Bidder is expected to examine the Tender Document, including all instructions and terms and conditions.

11. Clarification of the Tender Document

The Bidder may require further information or clarification of the Tender Document, within 05 (five) calendar days of issuance of tender in writing. The clarification and its replies will be shared with all prospective bidders.

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

12. Amendment of the Tender Document

12.1 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 Bidder(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 Bidder(s).

12.2 The Purchaser shall notify the amendment(s) in writing to the prospective Bidders as per Punjab Procurement Rules, 2014.

12.3 The Purchaser may, at its exclusive discretion, amend the Tender Document to extend the deadline for the submission of the Tender as per Rule-25(4) of Punjab Procurement Rules, 2014.

13. Preparation / Submission of Tender

13.1 The Bidder is allowed to bid for any or all lots separately.

13.2 The Tender and all documents relating to the Tender, exchanged between the Bidder and the Purchaser, shall be in English. Any printed literature furnished by the Bidder in another language shall be accompanied by an English translation which shall govern for purposes of interpretation of the Tender.

13.3 The Tender shall be filed in / accompanied by the prescribed Forms, Annexes, Schedules, Documents, Brochures, Literature, etc. which shall be typed, completely filled in, stamped and signed by the Bidder or his Authorized Representative. In case of copies, signed and stamped photocopies may be submitted. If volume of the bid contains various set(s) of documents the same must be properly numbered and tagged in binding shape.

13.4 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.

13.5 Technical Proposal shall comprise the following, **without quoting the price**:

13.6 Technical Proposal Form (**Annexure-B**)

- 13.6.1 Undertaking (All terms & conditions and qualifications listed anywhere in this tender document have been satisfactorily vetted) **(Annexure-G)**
- 13.6.2 Certificate of Company/Firm Registration/Incorporation under the laws of Pakistan
- 13.6.3 Covering letter duly signed and stamped by authorized representative. **(Annexure-E)**
- 13.6.4 Has authorization of the principal / manufacturer as per clause-7;
- 13.6.5 Evidence of eligibility of the Bidder and the Goods
- 13.6.6 Evidence of conformity of the Goods / the Services to the Tender Document
- 13.6.7 Undertaking and Evidence that the quoted Goods are genuine, brand new, non-refurbished, un-altered in any way, of the most recent / current model, imported through proper channel, and incorporate all recent improvements in design and materials
- 13.6.8 Technical Brochures / Literature
- 13.6.9 Details of Warranty/support and After-Sale Service
- 13.6.10 Submission of undertaking that the firm is not blacklisted by any of Provincial or Federal Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan.
- 13.6.11 Valid Registration Certificate for Income Tax & Sales Tax
- 13.6.12 Power of Attorney, if an authorized representative is appointed (**Annexure-F**)

13.7 The Financial Proposal shall comprise the following:

13.7.1 Financial Proposal Form (**Annexure-C**)

13.7.2 Price Schedule (**Annexure-D**)

13.7.3 Bid Security **(Earnest Money),** as per provisions of the clause Bid Security of this document.

13.8 The Bidder shall seal the Original Technical Proposal in an envelope duly marked as under:

Original Technical Tender for

Tender Name. [Name of Tender]

Tender No. **109082019-2C**

Lot No:

[Name of the Purchaser]

[Address of the Purchaser]

[Name of the Bidder]

[Address of the Bidder]

[Phone No. of the Bidder]

13.9 The Bidder shall seal the Duplicate Technical Tender in an envelope duly marked as under:

Duplicate Technical Proposal for

Tender Name. [Name of Tender]

Tender No. **109082019-2C**

Lot No:

[Name of the Purchaser]

[Address of the Purchaser]

[Name of the Bidder]

[Address of the Bidder]

[Phone No. of the Bidder]

13.10 The Bidder shall follow the same process for the Financial Tender.

13.11 The Bidder 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 Name. [Name of Tender]

Tender No. **109082019-2C**

Lot No:

Strictly Confidential

[Name of the Purchaser]

[Address of the Purchaser]

[Name of the Bidder]

[Address of the Bidder]

[Phone No. of the Bidder]

13.12 The Bidder 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 Name. [Name of Tender]

Tender No. **109082019-2C**

Lot No:

Strictly Confidential

[Name of the Purchaser]

[Address of the Purchaser]

[Name of the Bidder]

[Address of the Bidder]

[Phone No. of the Bidder]

13.13 The Bidder shall enclose soft copies of the Technical Proposal, including all Forms, Annexes, Schedules, Documents, Brochures, Literature, etc., in the form of MS Word Documents, MS Excel Worksheets and Scanned images, with the hard copies.

13.14 The Tender shall be dropped in the prescribed Tender Box placed at the Reception of the Purchaser's office, not later than 1200 hours on last date of submission of bids. No late bid shall be accepted.

13.15 This is made obligatory to affix authorized signatures with official seal on all original and duplicate (copies) documents, annexures, copies, certificates, brochures, literature, letters, forms and all relevant documents as part of the bids submitted by the Bidder.

14. Tender Price

14.1 The quoted price shall be:

14.1.1 best / final / fixed and valid until completion of all obligations under the Contract i.e. not subject to variation / escalation;

14.1.2 in Pak Rupees;

14.1.3 inclusive of all taxes, duties, levies, insurance, freight, etc.;

14.1.4 Including all charges up to the delivery point as mentioned in the tender document or at various Punjab Government Offices in Punjab (if required).

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 be free of charge, and no separate payment shall be made for that item(s).

14.4 In case of locally produced Equipment/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 Equipment/Services 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 (if required by the Purchaser).

15. Bid Security (Earnest Money)

15.1 The bid security amount has been calculated as per provisions of Rule-27 "Bid Security" of PPRA Rules, 2014 (i.e. not exceeding five percent of the estimated cost), the Bidder shall furnish the Bid Security (Earnest Money) as under:

15.1.1 for a sum of equivalent to as per following table, separately against each LOT.

LOT#	ITEM	BID SECURITY
1	Core Network Equipment	500,000
2	Upgrade of existing IPT Solution	50,000
3	Warranties for CISCO ASR	10,000
4	Servers	40,000

15.1.2 denominated in Pak Rupees;

15.1.3 separately against each Lot given in this tender document;

15.1.4 As part of financial bid envelope.

15.1.5 in the form of Demand Draft / Pay Order / Call Deposit Receipt, in the name of the Purchaser;

15.1.6 have a minimum validity period of one twenty (120) days from the last date for submission of the Tender or until furnishing of the Performance Security, whichever is later.

15.2 The Bid Security shall be forfeited by the Purchaser, on the occurrence of any / all of the following conditions:

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

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

15.2.3 If the Bidder, 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 Bid security shall be returned to the technically unsuccessful Bidder with unopened/sealed financial bid while the unsuccessful bidders of financial bid opening procedure will be returned the Bid Security only after the award of contract. The Bid Security shall be returned to the successful Bidder upon furnishing of the Performance Security.

16. Tender Validity

The Tender shall have a minimum validity period of ninety (90) days from the last date for submission of the Tender. The Purchaser may solicit the Bidder'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 Bidder agrees to extension of validity period of the Tender, the validity period of the Bid Security shall also be suitably extended. The Bidder may refuse extension of validity period of the Tender, without forfeiting the Bid security.

17. Modification / Withdrawal of the Tender

17.1 The Bidder 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 Bid Security.

18. Opening of the Tender

18.1 Tenders (Technical Bids) shall be opened at 1230 hours on the last date of submission of bids i.e. **12th September, 2019,** in the presence of the Bidder(s) for which they shall ensure their presence without further invitation, as per provision of Rule-30 of PPRA Rules, 2014. In case the last date of bid submission falls in / within the official holidays / weekends of the Purchaser, the last date for submission of the bids shall be the next working day.

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

18.3 No Bidder or its representative will be allowed to keep any digital device (camera, audio recorder, cell phone etc.) during tender opening meeting at given time and location.

19. Clarification of the Tender

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 Bidder(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 sole discretion of the purchaser

20. Determination of Responsiveness of the Bid (Tender)

20.1 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:

20.1.1 meets the eligibility criteria given herein this tender document/ the Goods / the Services;

20.1.2 meets the Technical Specifications for the Goods / the Services against each Lot;

20.1.3 meets the delivery period / point for the Goods / the Services against each Lot;

20.1.4 in compliance with the rate and limit of liquidated damages;

20.1.5 offers fixed price quotations for the Goods / the Services against each Lot, whereby no optional offer / bid or price is allowed;

20.1.6 is accompanied by the required Bid Security as part of financial bid envelope against each Lot;

20.1.7 The original receipt of tender fee submitted, attached with technical bid envelope;

20.1.8 In compliance with the Preparation/Submission of Tender in a manner prescribed in this tender document clause-13;

20.1.9 Conforms to all terms and conditions of the Tender Document, without material deviation or reservation.

20.2 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 Bidder's obligations under the Contract.

20.3 The Tender determined as not substantially responsive shall not subsequently be made responsive by the Bidder by correction or withdrawal of the material deviation or reservation.

21. Correction of errors / Amendment of Tender

21.1 The Tender shall be checked for any arithmetic errors which shall be rectified, as follows:

21.1.1 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.

21.1.2 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.

21.1.3 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.

21.2 The Tender price as determined after arithmetic corrections shall be termed as the Corrected Total Tender Price which shall be binding upon the Bidder.

21.3 Adjustment shall be based on corrected Tender Prices. The price determined after making such adjustments shall be termed as Evaluated Total Tender Price.

21.4 No credit shall be given for offering delivery period earlier than the specified period.

22. TECHNICAL EVALUATION CRITERIA

PASS MARKS: A technically eligible bidder, based on conditions listed in this document, not meeting the 70% pass marks limit will be rejected in Technical Evaluation, and its sealed/unopened Financial Proposal shall be returned back. All bidders scoring greater than or equal to 70% of the marks will be accepted in technical proposal, and their financial bids will be opened.

PROVISO: Provided that if NONE or ONLY ONE (single) bidder exceeds the 70% pass mark, then the Purchaser SHALL decrease the Pass Mark limit to 60%. In other words, if TWO or more bidders exceed 70%, then the Pass Mark will NOT be decreased to 60%.

If Pass Marks are decreased to 60%, then ALL bidders with scores greater than or equal to 60% shall be considered EQUALLY as approved in the Technical Evaluation, and their Financial Bids shall be opened.

The Bidders who have duly complied with the Eligibility/Qualification and Evaluation Criteria against each Lot will be eligible for further processing.

The Bids which do not conform to the Technical Specifications or Bid conditions or the Bids from the Bidders without adequate capabilities for supply and maintenance / warranty services will be rejected.

The Eligible/Technically Qualified Bidders will be considered for further evaluation.

The Technical proposals shall be evaluated by the technical evaluation committee in the light of following evaluation criteria:

FOR LOT#1

Category	Description	Requirement/ Points
Legal (Mandatory)	Valid Income Tax Registration *Registered for at least last three (03) years	Required
	Valid General Sales Tax Registration (Status = Active with FBR)	Required
	Submission of undertaking that the firm is not blacklisted by any of Provincial or Federal Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan.	Required
	In full compliance of the Execution Schedule and Delivery Period mentioned in tender, document (Undertaking).	Required
	Compliance to the technical specifications of hardware / software /Solution (all items) to be procured mentioned vide Annex-A of this document and product technical Brochure that should include specific make and model with clarity of offered specifications must be enclosed with the bid	Required
	Directly Authorized by Principal / Manufacturer	Required
	Quoted hardware (i. Core Switch, ii. 10G TOR Switches (48-Port), iii. 1G TOR Switches (48-Port)) must have an end of support beyond next 05 years (Undertaking from Principal / Manufacturer).	Required
	Commercial deployment reference of SDN within or outside Pakistan by the Principal / Manufacturer	Required

Category	Description	Requirement	Points
Financial Strength	Average Annual turnover of last 3 years (Max points 100) (Verifiable through audited financial statements)	50 to 60 million	50 points
		60.1 to 70 million	75 points
		70.1 million and above	100 points
Relevant experience	Project of similar nature i.e. sale of network equipment during last three (03) years (Verifiable through Purchase orders/Contracts)	20-30 million	50 points
		30.1-40 million	75 points
		40.1 million and above	100 points

FOR LOT# 2 & 4

Category	Description	Requirement/ Points
Legal (Mandatory)	Valid Income Tax Registration *Registered for at least last one (01) year	Required
	Valid General Sales Tax Registration (Status = Active with FBR)	Required
	Submission of undertaking that the firm is not blacklisted by any of Provincial or Federal Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan.	Required
	In full compliance of the Execution Schedule and Delivery Period mentioned in tender, document (Undertaking).	Required
	Compliance to the technical specifications of hardware / software/Solution (all items) to be procured mentioned vide Annex-A of this document and product technical Brochure that should include specific make and model with clarity of offered specifications must be enclosed with the bid	Required
	Directly Authorized by Principal / Manufacturer	Required

Category	Description	Requirement	Points
Financial Strength	Project of similar nature i.e. sale of network equipment during last one (01) year (Verifiable through Purchase orders/Contracts)	3 to 4 million	50 points
		4.1 to 5 million	75 points
		5.1 million and above	100 points

FOR LOT# 3

Category	Description	Requirement/ Points
Legal (Mandatory)	Valid Income Tax Registration *Registered for at least last one (01) year	Required
	Valid General Sales Tax Registration (Status = Active with FBR)	Required
	Submission of undertaking that the firm is not blacklisted by any of Provincial or Federal Government Department, Agency, Organization or autonomous body or Private Sector Organization anywhere in Pakistan.	Required
	In full compliance of the Execution Schedule and Delivery Period mentioned in tender, document (Undertaking).	Required
	Compliance to the warranty services against all items / technical specifications as mentioned Annex-A of this document.	Required
	Directly Authorized by Principal / Manufacturer	Required

Note: Verifiable documentary proof for all above requirements and criteria points are required and marks will be awarded on the basis of these verifiable proofs. Bidder must include checklist for above requirements in their bid.

23. FINANCIAL PROPOSAL EVALUATION

23.1 Technically qualified/successful bidder(s)/Bidder(s) shall be called for opening of the Financial Proposal(s). The Financial Proposals will be opened in the presence of the Bidders at the time and venue indicated by the Purchaser accordingly. The technically Eligible/Successful Bidder(s)/Bidder(s) or their authorized representatives against each Lot shall be allowed to take part in the Financial Proposal(s) opening against their relevant Lot(s).

23.2 Financial Proposal evaluation will be conducted under the Punjab Procurement Rules, 2014. The Price evaluation will include all duties, taxes and expenses etc. In case of any exemption of duties and taxes made by the Government in favor of the Purchaser, the contractor shall be bound to adjust the same in the Financial Proposal.

23.2.1 In cases of discrepancy between the cost/price quoted in Words and in Figures, the lower of the two will be considered.

23.2.2 In evaluation of the price of an imported item, the price will be determined and considered inclusive of the customs and other import duties etc.;

23.2.3 In evaluation of the price of articles/goods which are subject to excise duty, sales tax, income tax or any other tax or duty levied by the Government, the price will be determined and considered inclusive of such duties and taxes.

23.3 The Purchaser will not be responsible for any erroneous calculation of taxes and all differences arising out as above shall be fully borne by the Successful Bidder. However, any subsequent changes in rates or structure of applicable taxes by the Gov. at any time during execution/evaluation period will be dealt with mutual consent.

24. Rejection / Acceptance of the Bid

24.1 The Purchaser shall have the right, at his exclusive discretion, to increase/decrease the quantity of any or all item(s)/Services without any change in unit prices or other terms and conditions, at the time of order placement. The Purchaser may reject all bids or proposals at any time prior to the acceptance of a bid or proposal. The Purchaser shall upon request communicate to any bidder, the grounds for its rejection of all bids or proposals, but shall not be required to justify those grounds. The Purchaser shall incur no liability, solely, by virtue of its invoking sub-rule (1) of Rule-35 of Punjab Procurement Rules, 2014 towards the bidders. However, bidders shall be promptly informed about the rejection of the bids, if any (As per Rule 35 of Punjab Procurement Rules, 2014).

24.2 The Tender shall be rejected if it is:

24.2.1 substantially non-responsive in a manner prescribed in this tender document clause-20; or

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

24.2.3 incomplete, partial, conditional, alternative, late; or

24.2.4 bid not submitted separately against each Lot and relevant bid security is not submitted against each Lot separately.

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

24.2.6 the Bidder refuses to accept the corrected Total Tender Price; or

24.2.7 the Bidder has conflict of interest with the Purchaser; or

24.2.8 the Bidder tries to influence the Tender evaluation / Contract award; or

24.2.9 the Bidder engages in corrupt or fraudulent practices in competing for the Contract award;

24.2.10 the Bidder fails to meet all the requirements of Tender Eligibility / Qualification Criteria (Clause-7);

24.2.11 the Bidder fails to meet the evaluation criteria requirements (clause-22);

24.2.12 the Bidder has been blacklisted by any public or private sector organization;

24.2.13 the Bidder has been served any legal notices or displeasure letters by any public sector organization on serious failures to provide satisfactory services;

24.2.14 the Bidder has mentioned any financial implication(s) in the financial proposal that is in contradiction to this document and Government rules and regulations.

24.2.15 there is any discrepancy between bidding documents and bidder's proposal i.e. any non-conformity or inconsistency or informality or irregularity in the submitted bid.

24.2.16 the Bidder submits any financial conditions as part of its bid which are not in conformity with tender document.

24.2.17 Non-submission of verifiable proofs against the mandatory as well as general documentary, qualification and eligibility related requirements.

24.2.18 If the rates quoted by vender are not workable or on higher side etc.

25. Award Criteria

25.1. At first step, eligible bidder(s)/Bidder(s) as per clause-7 (Tender Eligibility) of this tender document fulfilling the qualification and technical evaluation criteria against each Lot will stand technically qualified.

25.2. At second step, technically qualified and successful bidder(s)/Bidder(s) will be evaluated in the light of all Pre-Conditions, necessary requisites and shall be selected on lowest cost quoted as per rules and fulfilling all codal formalities against each Lot, irrespective of their score in the previous step.

26. Acceptance Letter

As per provisions of Rule (55) of Punjab Procurement Rules 2014, the Purchaser shall issue the Acceptance Letter to the successful Bidder, at least after 10 days of announcement of bid evaluation reports (Ref. Rule-37 of PPRA Rules, 2014) and prior to the expiry of the original validity period or extended validity period of the Tender, which shall constitute a contract, until execution of the formal Contract against each Lot.

27. Performance Security

27.1 The successful Bidder/The Contractor against each Lot shall furnish Performance Security as under:

- 27.1.1 within twenty eight (28) days of the receipt of the Acceptance Letter from the Purchaser;
- 27.1.2 LOT wise performance security (Separate for each LOT, if the bidder is successful for more than one LOT) would be submitted by the Bidder;
- 27.1.3 in the form of a Bank Guarantee, issued by a scheduled bank operating in Pakistan, as per the format provided in the Tender Document;
- 27.1.4 for a sum equivalent to 10% of the contract value;
- 27.1.5 denominated in Pak Rupees;
- 27.1.6 Have a minimum validity period until the date of expiry of warranty/support period, support period or termination of services, or fulfillment of all obligations under the contract, whichever is later. Performance security shall not be acceptable with any validity less than the prescribed time period.

27.2 The Performance Security shall be payable to the Purchaser, on occurrence of any / all of the following conditions:

- 27.2.1 If the Contractor commits a default under the Contract;
- 27.2.2 If the Contractor fails to fulfill the obligations under the Contract;
- 27.2.3 If the Contractor violates any of the terms and conditions of the Contract.

27.3 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 Bidder within thirty working days after the expiry of its validity on written request from the Contractor.

28. Redressal of grievances by the procuring agency

28.1 The Purchaser has constituted a committee comprising of odd number of persons, with proper powers and authorizations, to address the complaints of bidders that may occur prior to the entry into force of the procurement contract.

28.2 Any bidder feeling aggrieved by any act of the Purchaser after the submission of his bid may lodge a written complaint concerning his grievances not later than ten days after the announcement of the bid evaluation report.

28.3 The committee shall investigate and decide upon the complaint within fifteen days of the receipt of the complaint.

28.4 Mere fact of lodging of a complaint shall not warrant suspension of the procurement process.

28.5 Any bidder not satisfied with the decision of the committee of the Purchaser may lodge an appeal in the relevant court of jurisdiction.

II. General Conditions of Draft Contract

29. Contract

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

30. Contract Duration

Lot # 1

The Contract duration shall be for the period of three (3) years initially and further extendable for next two years starting from the date of delivery, installation, deployment & commissioning of all Goods / Equipment / Items till end of warranty / support period.

Lot # 2 & 4

The Contract duration shall be for the period of three (3) years starting from the date of delivery, installation, deployment & commissioning of all Goods / Equipment / Items till end of warranty / support period.

Lot # 3

The Contract duration shall be for the period starting from 1st November, 2019 till 30th April, 2021, subsequent to the issuance of LOA.

31. 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, 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.

32. 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.

33. Standards

The Goods supplied and the Services provided under this Contract shall conform to the authoritative latest industry standards.

34. 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 / locally.

35. 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.

36. Execution Schedule

Lots # 01:

The Contractor shall deliver Goods/ordered equipment/Software within twelve (12) weeks from the issuance of Acceptance Letter.

The Contractor shall install and commission Goods/ordered equipment/Software within eight (8) weeks after the delivery.

Lots # 02 & 04:

The Contractor shall deliver, install and commission Goods/ordered equipment/Software within twelve (12) weeks from the issuance of Acceptance Letter.

Lot # 03:

The contractor shall start delivery of warranty services for existing hardware within two (02) weeks and deliver & install the modules within six (06) weeks from the issuance of Acceptance Letter.

37. 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.

38. Insurance

The Contractor may 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.

39. 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.

40. Delivery

40.1 The Contractor shall indicate his delivery approach clearly specifying the requirements for packing, shipping and unpacking of deliverable hardware with any associated/relevant software/Solution and its 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 Government Offices in Punjab, as specified by the Purchaser at the time of delivery.

40.2 The Goods shall remain at the risk and under the physical custody of the Contractor until the delivery, testing and taking over of the Goods is completed.

40.3 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.

40.4 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/support 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.

40.5 In any circumstances, changing of brand will not be acceptable. However, higher/latest model of the same brand can be delivered after approval of the purchaser.

41. Operation and Maintenance

The Contractor shall be responsible for the continuous operational capability and maintenance of the entire system, 24/7, without disruption to either service or performance, during the warranty/support period

42. Installation and Implementation

42.1 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.

42.2 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.

42.3 The Contractor shall provide a document stating step-by-step procedures for installation and disaster recovery to the Purchaser.

42.4 The Contractor shall provide all the recent patches and updates for Firmware/Hardware/Software/Solution, on a reliable media, with proper labeling, during the installation to the Purchaser.

42.5 The Contractor shall configure the system for high availability and reliability, of all hardware and software.

42.6 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.

43. Site Preparation

43.1 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, if any.

43.2 The Purchaser and the Client shall facilitate the Contractor in discharge of the above responsibilities.

44. Safety

44.1 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.

44.2 The Contractor shall be responsible for the addition of bilingual warnings and caution notices, where hazards cannot be eliminated or risks cannot be reduced.

44.3 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.

45. Test Equipment and Tools

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.

46. Spare Parts and Support

46.1 The Contractor shall ensure that the Goods provided by the Contractor, under the Contract are standard and of exact nature, and incorporate all recent improvements in design and materials, unless provided otherwise in the Contract.

46.2 The Contractor shall further ensure that the Goods 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 Goods.

46.3 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/support period.

46.4 The Contractor shall ensure availability of spare parts and technical assistance for all components, without major changes, after the completion of final acceptance for at least 05 years against Lot # 1, 3 years against Lot # 2 & 4 and for the period from 1st November, 2019 till 30th April, 2021 against Lot # 3.

46.5 The Contractor shall give six months advance notice on any discontinued part(s) with a suggestion for appropriate alternatives failing which will cause forfeiture of Performance Security.

46.6 The Contractor shall also identify and provide the following:

46.6.1 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;

46.6.2 critical items, whose failure would cause a system failure;

46.6.3 items of high cost and/or long lead time (over thirty working days);

46.6.4 items whose design reliability is such that normal stock replenishment would not justify maintaining a level of the item in stock.

47. Inspection and Testing

47.1 The Client 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.

47.2 The inspections and tests shall be conducted at the premises of the Contractor / at the final destination. Where conducted at the premises of the Contractor, the Contractor 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.

47.3 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.

47.4 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.

47.5 Nothing contained in this document shall, in any way, release the Contractor from any Warranty/support or other obligations under the Contract.

48. Taking-Over Certificate

48.1 The Contractor shall, by written notice served on the Client with a copy to the Purchaser, apply for a Taking-Over Certificate.

48.2 The Client shall, within seven 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.

48.3 Nothing contained in this document shall, in any way, release the Contractor from any Warranty/Support or other obligations under the Contract.

49. Warranty

49.1 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.

49.2 The Contractor shall further warrant that the Goods/Services 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/Services.

49.3 The Contractor shall provide Manufacturer's warranty/Support for minimum three (3) years for Lot # 01, 02 & 04 and for the period from 1st November, 2019 till 30th April, 2021 against Lot # 3 (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:

49.3.1 Free, on site repair / replacement of defective / damaged parts and labor, within 24 hours of intimation, Next Business Day Support;

49.3.2 On site replacement of defective / damaged Goods, if repair of such Goods involves a duration exceeding 24 hours.

49.4 The Contractor shall clearly mention Terms and Conditions of service agreements for the Goods supplied after the expiry of initial warranty/support period. In case of International Warranties, the local authorized dealers shall mention their service and warranty/support setup, details of qualified engineers, etc.

49.5 The Warranty/support Period shall start from the date of installation / configuration / deployment of the Goods on site.

49.6 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/support.

49.7 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.

49.8 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.

50. Ownership of Goods and Replaced Components

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.

51. Defects Liability Expiry Certificate

51.1 The Contractor shall, after expiry of the warranty/support period, by written notice served on the Client with a copy to the Purchaser, apply for a Defects Liability Expiry Certificate.

51.2 The Client shall, within seven 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/Support 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.

52. Payment

52.1 The Contractor shall provide all necessary supporting documents along with invoice.

52.2 The Contractor shall submit an Application for Payment, to the Purchaser. The Application for Payment shall: be accompanied by such invoices, warranty cards, receipts or other documentary evidence as the Purchaser may require; state the amount claimed; and set forth in detail, in the order of the Price Schedule, particulars of the Goods supplied, 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 Payment, if any.

52.3 The Purchaser shall get verified the details of Goods/equipment/Services delivered against the invoice from the concerned Technical Team of PITB and Payment shall be made on complete delivery of Goods/equipment/Services after issuance of satisfactory certificate by concerned technical team of PITB, as per details given in relevant Letter of Acceptance.

52.4 The Purchaser shall pay the amount verified within thirty (30) days. Payment shall not be made in advance and against partial deliveries against **Lots # 2, 3 & 4**. The Purchaser shall make payment for the Goods supplied, the Services provided and the Works done as per, to the Contractor, as per Government policy, in Pak Rupees, through treasury cheque.

52.5 Payment against **Lot # 1** shall be made in accordance with the following schedule:

Phase	Payment
After complete delivery of Equipment.	60%
After complete installation, testing and commissioning.	40%

52.6 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.

52.7 All payments shall be subject to any and all taxes, duties and levies applicable under the laws of Pakistan, for the whole period starting from issuance of Acceptance Letter till termination of the signed contract in this regard.

53. Price

The Contractor shall not charge prices for the Goods supplied, the Services provided and for other obligations discharged, under the Contract, varying from the prices quoted by the Contractor in the Price Schedule.

54. Contract Amendment

54.1 The Purchaser may at any time, by written notice served to the Contractor, alter or amend the contract for any identified need/requirement in the light of prevailing rules and regulations.

54.2 The Contractor shall not execute any Change until and unless the Purchaser has allowed the said Change, by written order served on the Contractor with a copy to the Client.

54.3 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.

54.4 No variation in or modification in the Contract shall be made, except by written amendment signed by both the Purchaser and the Contractor.

55. Assignment / Subcontract

55.1 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.

55.2 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.

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

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.

57. Liquidated Damages

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 total Contract Price which is attributable to such part of the Goods / the Services / the Works, 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, 10% of the Contract Price.

58. Blacklisting

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 or 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 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, as per provision of Punjab Procurement Rules, 2014 and PITB Procurement Regulations and Guidelines.

59. Forfeiture of Performance Security

59.1 The Performance Security shall be forfeited by the Purchaser, on occurrence of any / all of the following conditions:

58.1.1. If the Contractor commits a default under the Contract;

58.1.2. If the Contractor fails to fulfill any of the obligations under the Contract;

58.1.3. If the Contractor violates any of the terms and conditions of the Contract.

59.2. 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

59.3. 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.

59.4. Failure to supply required items/services within the specified time period will invoke penalty as specified in this document. In addition to that, Performance Security amount will be forfeited and the company will not be allowed to participate in future tenders as well.

60. Termination for Default

60.1 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.

60.2 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.

61. Termination for Insolvency

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.

62. Termination for Convenience

62.1 Any of the parties may, at any time, by written notice served on the other party with a copy to the Client, terminate the Contract, in whole or in part, for its convenience, without any compensation to the other party.

62.2 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:

62.2.1 to have any portion thereof completed and delivered; and/or

62.2.2 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.

63. Force Majeure

63.1 For the purpose of this contract “Force Majeure” means an event which is beyond the reasonable control of a party and which makes a party’s performance of its obligations under the Contract impossible or so impractical as to be considered impossible under the circumstances, and includes, but is not limited to, War, Riots, Storm, Flood or other industrial actions (except where such strikes, lockouts or other industrial are within the power of the party invoking Force Majeure), confiscation or any other action by Government agencies. In all disputes between the parties as to matters arising pursuant to this Contract, 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.

63.2 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.

63.3 If a Force Majeure situation arises, The Contractor shall, by written notice served on The Purchaser, 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.

63.4 Force Majeure shall not include (i) any event which is caused by the negligence or intentional action of a Party or Agents or Employees, nor (ii) any event which a diligent Party could reasonably have been expected to both (A) take into account at the time of the conclusion of this Contract and (B) avoid or overcome in the carrying out of its obligations here under.

63.5 Force Majeure shall not include insufficiency of funds or failure to make any payment required hereunder.

64. Dispute Resolution

64.1 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.

64.2 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.

65. Statutes and Regulations

65.1 The Contract shall be governed by and interpreted in accordance with the laws of Pakistan.

65.2 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.

65.3 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.

66. Taxes and Duties

The Contractor shall be entirely responsible for all taxes, duties and other such levies imposed make inquiries on income tax / sales tax to the concerned authorities of Income Tax and Sales Tax Department, Government of Pakistan.

67. Contract Cost

The Contractor shall bear all costs / expenses associated with the preparation of the Contract and the Purchaser shall in no case be responsible / liable for those costs / expenses. The successful bidder shall provide legal stamp papers of relevant value according to Govt. rules and regulations for signing of the formal contract.

68. The Client

68.1 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.

68.2 The Contractor shall proceed with the decisions, instructions or approvals given by the Client in accordance with these Conditions.

68.3 The Client shall conform to all the relevant clauses of this Tender Document to carry out all responsibilities assigned thereto in a timely manner.

69. Authorized Representative

69.1 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.

69.2 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.

69.3 Any such delegation or revocation shall be in writing and shall not take effect until notified to the other parties to the Contract.

69.4 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.

69.5 Notwithstanding Clause 69.2, 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.

69.6 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.

70. Waiver

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.

71. Training

71.1 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.

71.2 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.

72. Documentation

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.

73. Special Stipulations

<table>
<tr><td colspan="2">SCHEDULE-A, SPECIAL STIPULATIONS</td></tr>
<tr><td colspan="2">For ease of Reference, certain special stipulations are as under:</td></tr>
<tr><td>Bid Security (Earnest Money)</td><td>The Contractor shall furnish the Bid Security (earnest Money) in the form of Demand Draft / Pay Order / Call Deposit Receipt, in the name of the Purchaser; denominated in Pak Rupees;
For a sum of equivalent to the mentioned amount as per the following table separately against each lot:
<table>
<tr><th>LOT#</th><th>ITEM</th><th>BID SECURITY</th></tr>
<tr><td>1</td><td>Core Network Equipment</td><td>500,000</td></tr>
<tr><td>2</td><td>Upgrade of existing IPT Solution</td><td>50,000</td></tr>
<tr><td>3</td><td>Warranties for CISCO ASR</td><td>10,000</td></tr>
<tr><td>4</td><td>Servers</td><td>40,000</td></tr>
</table>
Have a minimum validity period of one twenty (120) days from the last date for submission of the Tender or until furnishing of the Performance Security, whichever is later.</td></tr>
<tr><td>Performance Security</td><td>The successful Contractor shall furnish Lot wise Performance Security as under:
within twenty eight (28) 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;
for a sum equivalent to 10% of the total contract value;
denominated in Pak Rupees;
Have a minimum validity period until the date of expiry of warranty/support period, support period or termination of services, or fulfillment of all obligations under the contract, <u>whichever is later.</u></td></tr>
<tr><td>Delivery Period (including installation, configuration, deployment, commissioning, testing, and training of the delivered items.)</td><td><u>Lots # 01:</u>
The Contractor shall deliver Goods/ordered equipment/Software within twelve (12) weeks from the issuance of Acceptance Letter.
The Contractor shall install and commission Goods/ordered equipment/Software within eight (8) weeks after the delivery.
<u>Lots # 02 & 04:</u>
The Contractor shall deliver, install and commission Goods/ordered equipment/Software within twelve (12) weeks from the issuance of Acceptance Letter.
<u>Lot # 03:</u>
The contractor shall start delivery of warranty services for existing hardware within two (02) weeks and deliver & install the modules within six (06) weeks from the issuance of Acceptance Letter</td></tr>
<tr><td>Liquidated damages for failure / delay in supply / installation / configuration of Goods / Services / Works by the Contractor</td><td>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 total Contract Price which is attributable to such part of the Goods / the Services / the Works, 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, 10% of the Contract Price.</td></tr>
</table>

ANNEXURE-A

TECHNICAL SPECIFICATIONS

LOT # 1 - CORE NETWORK EQUIPMENT

BOQ

Sr.#	Item Description	Qty
1	Spine Switch with 30 x 40G/100G Fiber Ports, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.	**2**
2	Leaf Switch, Type-I with 48 x 1G/10G Copper Ports and 6 x 40G/100G Fiber Uplinks, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.	**2**
3	Leaf Switch, Type-II with 48 x 1G/10G/25G Fiber Ports and 6 x 40G/100G Fiber Uplinks, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.	**2**
4	Leaf Switch, Type-III with 48 x 100Mbps/1000Mbps Copper Ports, 4 x 10G/25G Fiber Ports and 2 x 40G/100G Fiber Uplinks, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.	**4**
5	SDN Controller Cluster with Minimum three (03) Physical Appliances or three (03) Virtual Appliances with Dedicated Hardware/Software/OS. 10G redundant uplinks. Redundant Power Supplies. 3 Years 8x5xNBD HW/SW Support.	**1**
6	Modular Campus Aggregation Switch with minimum 7 Slots (2 x Supervisor + 5 I/O Slots). Interface Requirement: 48x1G Copper, 48x1G Fiber and 48x10G Fiber Ports. Additional 8x10G OR 2x40G Fiber Interfaces. Single Supervisor Installed with support for Redundant Supervisor. One Expansion Slot for Future Requirements. Redundant Power Supplies and Fan Trays. 3 Years 8x5xNBD HW/SW Support.	**2**
7	**Transceiver Modules**	
	-- 100GBASE QSFP Active Optical Cable, 30m	**16**
	-- 10G Active cable assembly, 10m	**14**
	-- 10GBASE-SR SFP Module, Multi-mode Fiber	**20**
	-- 1000BASE-SX SFP transceiver module, MMF	**130**
	* Bidder can use the below mentioned Cisco transceiver modules if they are compatible with proposed switches. Bidder must provide 3 years warranty if the existing transceiver modules are used.	
	-- SFP-GE-T	100
	-- GLC-T	4
	-- GLC-SX-MM	50
	-- SFP-10G-SR	96
	-- SFP-H10GB-CU5M	12
8	**Warranty Services, 8x5xNBD Advance Replacement with Recurring License Costs and Subscriptions**	
	-- 4th Year	**1**
	-- 5th Year	**1**

NOTE: 3 years NBD advanced hardware replacement and software up-gradation / support warranty verifiable from principal must be provided without any extra cost.

Data Center "Technical Specifications References"

Pakistan Information Technology Board (PITB) is planning to upgrade their existing data center, Based on Cisco Nexus 7k, Nexus 5k and Nexus 2k, to the Next Generation Data Center providing Software Defined Networking capabilities. The proposed solution should utilize as much of existing equipment as possible including the existing SFPs.

The SDN based Data Center should provide a separate Control and Data Plane, with controller supporting / providing the integration with different currently installed services such as Cisco CUCM, Palo Alto Firewall, Cisco WLC etc.

PITB intends to use the below inventory, in case the proposed solution is unable to integrate/use the mentioned equipment, bidder can propose an alternate solution as required in the RFP.

Item	Sr.#	Part #	Description	Qty
Switching	1	SFP-GE-T	1000BASE-T SFP (NEBS 3 ESD)	100
	2	GLC-T	1000BASE-T SFP	04
	3	GLC-SX-MM	GE SFP, LC connector SX transceiver	50
	4	SFP-10G-SR	10GBASE-SR SFP Module	96
	5	SFP-H10GB-CU5M	10GBASE-CU SFP+ Cable 5 Meter	12

General Data Center Guidelines

1. The data center switching architecture should be based on Leaf-Spine architecture managed by a centralized SDN controller
2. The Leaf and Spine Switches should support line-rate, low-latency, lossless 1/10/40/100 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 05 years.
5. Proposed Design should be Spanning tree free so that redundant links can be utilized for better throughput.
6. Principal vendor/Bidder shall be responsible for the migration of services from current production network to the SDN network. Any kind of technical support, configuration support, software upgrades and updates, make-shift arrangements, backup equipment which may be required during the migration of services shall be arranged by the bidder/principal vendor.

Data Center Switching

1.1 Spine Switches

General Specifications:

1. The core switch should support SDN architecture with option to configure the components from centralized SDN controller.
2. The switches should be able to manage by a single controller that creates a VXLAN fabric. VXLAN License should be part of the solution.
3. The switches must include all licenses required to operate the switch in SDN mode with required feature set.

4. The proposed switch should support IPv6.
5. Must support advanced dynamic Routing Protocol and advanced QoS features.
6. Should have hot swappable redundant fans.
7. Proposed switch should have CE, UL, EN and IEC Standards compliance or equivalent industry standard compliance.
8. There should not be any head of line blocking architecture to avoid any packet loss.
9. Should support deployment in SDN based environment along with a controller and should also support deployment in controller-less environment for a traditional network as a core switch.
10. Should support features like SPAN. Must be able to analyze control and data plane traffic at line rate.
11. Should support XML and Scriptable command-line interface (CLI)
12. Proposed switch should support line rate processing for all the interfaces.

The ASIC's should be able to collect network based analytics at line rate, not at sampled frequencies. Vendors can propose equivalent solution without compromising on the features and functionality required.

13. The core switch should be able to support programmability with XML, Netconfig etc. along with OpenStack integration.
14. The core switch should provide zero-service-loss hardware and software architecture.
15. The core switch should have built-in packet capturing tool which should provide capability for network visibility and control. Vendors can propose equivalent solution without compromising on the features and functionality required.
16. The core switch should have Software Defined Network Features i.e. system security, fabric management, intent-based networking, multi-pod, and virtualization, Multi-Site and physical remote leaf.
17. The core switch must have DCI overlay features such as Inter AS option B, Layer 3 EVPN and VXLAN EVPN.

High Availability Requirements

1. The switch should have redundant power supplies.
2. The switch should have redundant fans and should be hot swappable.
3. Should have 1 x Ethernet ports for management.

Capacity Requirements

1. The Core switch shall support switching fabric capacity of minimum 6 Tbps or higher
2. Proposed switch should support 2 Billion packets per second (IPv4) or higher
3. The proposed switch shall support high density of 40G/100G interfaces with minimum 30 x 40 / 100G QSFP28 ports.
4. Should support at least 30 links in a port channel.
5. Proposed Switch should have MAC address scalability for applications like VMWARE etc, support of at least 90K MAC is required
6. Should support ACL entries minimum of 16K for Ingress and 8K for egress.
7. Should support at least 1K VRF Instances.

Standards and Protocol support

1. Supports Simple Network Management Protocol (SNMP) Versions 3, 2c, and 1
2. Should support Deficit-Weighted Round-Robin (DWRR) and Shaped Round-Robin (SRR) or equivalent.
3. Should support major layer 3 protocols like:
    a. Open Shortest Path First (OSPF) Protocol Versions 2 (IPv4) and 3 (IPv6)
    b. Intermediate System-to-Intermediate System (IS-IS) Protocol

c. Border Gateway Protocol (BGP)

4. Proposed Core Switch should support standard protocols like
    a. Dynamic Host Configuration Protocol (DHCP) Helper
    b. Unicast Reverse Path Forwarding (uRPF) for IPv4 and IPv6
    c. Virtual Router Redundancy Protocol (VRRP) for IPv4
    d. Policy-Based Routing (PBR) for IPv4
    e. Generic Routing Encapsulation (GRE) tunneling or equivalent
    f. Graceful Restart for all protocols in IPv4
    g. Unicast
5. Should support standard Security features and protocols like Authentication, authorization, and accounting (AAA), Secure Shell (SSH) Protocol Version 2, Simple Network Management Protocol Version 3 (SNMPv3) support, Port Security and IEEE 802.1x authentication and RADIUS support
6. Should support MACSEC or equivalent.
7. Proposed switches should be able to support MAC in IP for layer 2 extensions across different data centers independent of infrastructure technology for VM mobility.
8. Proposed core switches shall be able to extend layer 2 over IP network without using MPLS/VPLS.

1.2 Leaf Switches for 1/10G Copper Connectivity

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

General System Requirements

1. The proposed switch should provide connectivity for all the L4-7 applications, Campus network, External network, Compute etc.
2. All the uplinks from Leaf to Spine should work in active/active mode and should provide connectivity over 100G links
3. The switches must include all licenses required to operate the switch in SDN mode with required feature set.

High Availability Requirements

1. The proposed switch should have hot swappable redundant power supplies.
2. Should have hot swappable fan modules.

Capacity Requirements

1. The switch should support at least 2 Tbps of bandwidth and at least 1.3 Billion packet per second.
2. The switch should have at least 48 x 1/10G copper interfaces for downlink connectivity.
3. The switch should have at least 6 x 40/100G QSFP28 Ports for connectivity with the Spines.
4. Support for more than 3500 VLANs per switch
5. The proposed switch should support minimum 250K MAC address table entries.
6. The proposed switch should provide line-rate traffic throughput on all the interfaces.

Standard Protocols Support

1. The platform provides wire-rate Layer 2 and 3 switching on all ports.
2. Should offer native line-rate VXLAN routing. VXLAN License should be part of the solution.
3. Should provide Layer 2 multi-pathing.

4. The switch should include Layer 3 features such as BGP, Open Shortest Path First (OSPF), Routing Information Protocol Version 2 (RIPv2), Protocol Independent Multicast Sparse Mode (PIM-SM), Source-Specific Multicast (SSM), and Multicast Source Discovery Protocol (MSDP) and any license required should be part of the solution.
5. The proposed switch should be able to support Software Defined Network Features i.e. system security, fabric management, intent-based networking, multi-pod, and virtualization, Multi-Site and physical remote leaf.
6. The proposed switch must support DCI overlay features such as Inter AS option B, Layer 3 EVPN and VXLAN EVPN.

1.3 Leaf Switches for 1/10G Fiber Connectivity

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

General System Requirements

1. The proposed switch should provide connectivity for all the L4-7 applications, Campus network, External network, Compute etc.
2. All the uplinks from Leaf to Spine should work in active/active mode and should provide connectivity over 100G links
3. The switches must include all licenses required to operate the switch in SDN mode with required feature set.

High Availability Requirements

1. The proposed switch should have hot swappable redundant power supplies.
2. Should have hot swappable fan modules.

Capacity Requirements

1. The switch should support at least 3 Tbps of bandwidth and at least 2 Billion packet per second.
2. The switch should have at least 48 x 1/10/25G Fiber interfaces for downlink connectivity.
3. The switch should have at least 6 x 40/100G QSFP28 Ports for connectivity with the Spines.
4. Support for more than 3500 VLANs per switch
5. The proposed switch should support minimum 250K MAC address table entries.
6. The proposed switch should provide line-rate traffic throughput on all the interfaces.

Standard Protocols Support

1. The platform provides wire-rate Layer 2 and 3 switching on all ports.
2. Should offer native line-rate VXLAN routing. VXLAN License should be part of the solution.
3. Should provide Layer 2 multi-pathing.
4. The switch should include Layer 3 features such as BGP, Open Shortest Path First (OSPF), Routing Information Protocol Version 2 (RIPv2), Protocol Independent Multicast Sparse Mode (PIM-SM), Source-Specific Multicast (SSM), and Multicast Source Discovery Protocol (MSDP) and any license required should be part of the solution.
5. The proposed switch should be able to support Software Defined Network Features i.e. system security, fabric management, intent-based networking, multi-pod, and virtualization, Multi-Site and physical remote leaf.

6. The proposed switch must support DCI overlay features such as Inter AS option B, Layer 3 EVPN and VXLAN EVPN.

1.4 Leaf Switches for 100M / 1G Copper Connectivity

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

General System Requirements

1. The proposed switch should provide connectivity for all the L4-7 applications, Campus network, External network, Compute etc.
2. All the uplinks from Leaf to Spine should work in active/active mode and should provide connectivity over 100G links
3. The switches must include all licenses required to operate the switch in SDN mode with required feature set.

High Availability Requirements

1. The proposed switch should have hot swappable redundant power supplies.
2. Should have hot swappable fan modules.

Capacity Requirements

1. The switch should support at least 600 Gbps of switching capacity and at least 250 Million packet per second
2. The switch should have at least 48 x 100/1000 Mbps copper interfaces for downlink connectivity.
3. The switch should have at least 2 x 40/100G QSFP28 Ports for connectivity with the Spines.
4. In addition to the above, the switch should also have 4 x 1/10/25 Gbps Ports. The port count can be achieved by using breakout cables without compromising on the total number of ports in clause 2 and 3. Bidder will provide the breakout cables along with SFPs in this case.
5. Support for more than 3500 VLANs per switch
6. The proposed switch should support minimum 250K MAC address table entries.
7. The proposed switch should provide line-rate traffic throughput on all the interfaces.

Standard Protocols Support

1. The platform provides wire-rate Layer 2 and 3 switching on all ports.
2. Should offer native line-rate VXLAN routing. VXLAN License should be part of the solution.
3. Should provide Layer 2 multi-pathing.
4. The switch should include Layer 3 features such as BGP, Open Shortest Path First (OSPF), Routing Information Protocol Version 2 (RIPv2), Protocol Independent Multicast Sparse Mode (PIM-SM), Source-Specific Multicast (SSM), and Multicast Source Discovery Protocol (MSDP) and any license required should be part of the solution.
5. The proposed switch should be able to support Software Defined Network Features i.e. system security, fabric management, intent-based networking, multi-pod, and virtualization, Multi-Site and physical remote leaf.

1.5 SDN Controller

The SDN controller should be appliance based (physical or virtual) with at least 3 controllers functioning in a cluster to provide high availability. In case of virtual appliance, the bidder shall propose 03 physical servers with redundant power supplies and hypervisor/OS and other associated licenses.

General System Requirements

The SDN controller should provide at least the below basic features:

1. Application-centric network policies
2. Network provisioning and control based on the application requirements and policies
3. Application and topology monitoring and troubleshooting
4. Third-party integration and management of
    - Layer 4 through Layer 7 (L4-L7) services
    - VMware vCenter and vShield
    - Microsoft Hyper-V, System Center Virtual Machine Manager (SCVMM
    - Open Virtual Switch (OVS) and OpenStack
    - Kubernetes
    - Existing Palo Alto Firewall
    - F5
5. Image management (spine and leaf)
6. Inventory and configuration
7. Implementation on a distributed framework across a cluster of appliances
8. Health scores for critical managed objects (tenants, application profiles, switches, etc.)
9. Fault, event, and performance management.

High Availability Requirements

1. Each controller appliance should have redundant power supplies.
2. The Controllers should be deployed in a cluster to avoid single point of failure.
3. Any controller in the cluster should be able to service any user for any operation
4. Addition or removal of a controller from the cluster should be transparent.

Capacity Requirements

1. The cluster should be able to support a network of more than 1,000 edge ports.
2. Each appliance in the cluster should have redundant uplinks of 10G.
3. Each appliance in the cluster should have redundant power supplies.

1.6 Campus Aggregation

The Campus aggregation should serve as the aggregation point for all the existing Cisco Access switches. The switch should support SDN for the Access Network.

General System Requirements

The Campus aggregation switch should include below features that are required to implement Software Defined Network for the Access network when required in future.

1. Simplified device deployment

2. Unified management of wired and wireless networks
3. Network virtualization and segmentation
4. Group-based policies
5. Encrypted Traffic Analysis or equivalent
6. AES-256 MACSec encryption or equivalent

High Availability Requirements

1. The proposed switch should have hot swappable redundant power supplies.
2. Should have dual fan trays with dual /N+1 fans.
3. Should support redundant Supervisor module.

Capacity Requirements

1. The switch should provide at least 120 Gbps switching capacity per slot.
2. The supervisor module should support more than 1 Tbps centralized capacity and 900 Mpps of throughput.
3. Each switch should have at least 48 x 10/100/1000 Mbps copper interfaces.
4. Each switch should have at least 48 x 1Gbps SFP interfaces.
5. Each switch should have at least 48 x 10 Gbps Fiber interfaces.
6. Each switch should have 2 x 40 Gbps interfaces.
7. The switch should have dedicated slots for Primary and Redundant Supervisors.
8. The switch should have at least 1 empty line card slot available for future expansion.
9. Should support IEEE 802.3BT.

Standard Protocols Support

1. The switch should include Advanced Layer 3 features (static, Routing Information Protocol Version 1 [RIPv1], RIPv2, RIPng, and Full Open Shortest Path First [OSPF], Border Gateway Protocol Version 4 [BGPv4], Intermediate System-to-Intermediate System Version 4 [IS-ISv4], Protocol-Independent Multicast (PIM), PIM Sparse Mode (PIM SM) and PIM Source-Specific Multicast (PIM SSM)) and any license required should be part of the solution.
2. Switch should support network segmentation using VRF, VXLAN, VLAN and MPLS.
3. Switch should support network automation using Netconf, Restconf, YANG, ZTP/Open PnP.

1.7 Transceiver Modules

The requirement for transceiver modules to establish the connectivity is given below. Vendor can re-use the existing SFPs available with PITB.

Sr.#	Item	Qty
1	100GBASE QSFP Active Optical Cable, 30m	16
2	10G Active cable assembly, 10m	14
3	10GBASE-SR SFP Module, Multi-mode Fiber	20
4	1000BASE-SX SFP transceiver module, MMF	130

Additional SFP Requirements:

2 x 10G SFP required supporting up to 10 Km distance for connectivity between DC and DR site.

1.8 Warranty

1. The bidder shall provide comprehensive, principal-backed warranty for all the supplied equipment for 3 years without any extra cost.
2. The bidder shall also provide software support and subscription services/licenses for the quoted equipment for 3 years without any extra cost.
3. Any license required to enable SDN related feature must be part of the quoted solution.
4. Vendor shall separately quote price for renewal of warranty and support services / licenses for 4th and 5th year.
5. The equipment shall be covered under 8x5xNBD advance replacement warranty for three years.
6. Successful bidder shall be responsible for providing software upgrades, update patches and bug-fixes during the warranty period.
7. 24x7x365 technical support shall be available from principal vendor through online portal.
8. Purchaser shall be able to create RMA requests and Technical Support Tickets by using its own / partner login to the principal vendor's website.
9. Principal vendor must maintain local spares depot for warranty replacements.

LOT # 2 (UPGRADE OF EXISTING IPT SOLUTION)

BOQ

Sr.#	Item Description	Qty
1	**Cisco Unified Call Manager Upgrade from 8.x to 12.x with below licenses:** -- 98 x Basic User Licenses -- 220 x Enhanced User Licenses -- 3 Years SW Support -- PITB will provide required virtual machines for installation * Bidder can propose alternate solution for 318 Users in case of any other brand than Cisco.	**1**
2	**Cisco Wifi Network Expansion** -- 802.11ac Wave 2, 3x3 MU-MIMO, 2 Spatial Streams. 3 Years8x5xNBD HW/SW Warranty. -- Must be supported by existing 2 x Cisco 5508 WLAN Controllers. * Bidder can propose alternate solution with 70 Access Points and Redundant WLC Controller in case of any other brand than Cisco.	**42**

NOTE: 3 years' software updates/ support from the principal without any extra cost.

Technical Specifications

2.1 Cisco Unified Communications Manager Upgrade

Item	Sr.#	Part #	Description	Qty
Voice	1	CISCO3945-V/K9	Cisco 3945 Voice Bundle, PVDM3-64, UC License PAK	02
	2	CP-6921-C-K9=	Cisco Unified IP Phone 6921, Charcoal, Standard Handset	115
	3	CP-7945G	Cisco Unified IP Phone 7945, Gig Ethernet, Color	20
	4	CP-7962G	Cisco Unified IP Phone 7962	07
	5	CP-7915=	7915 UC Phone Grayscale Expansion Module	07
	6	CP-9951-CL-CAM-K9=	Cisco UC Phone 9951, Charcoal, Slm Hndst with Camera	10
	7	CP-7975G	Cisco UC Phone 7975, Gig Ethernet, Color	05
	8	CP-7911G	Cisco IP Phone 7911G	10

	9	CP-7942G	Cisco UC Phone 7942	10
	10	CP-7921G-W-K9=	Cisco 7921G Rest of World	15

PITB currently has Cisco CUCM version 8 deployed. We need to upgrade this to the latest version to be deployed in a virtualized environment.

Below are the existing licenses, which need to be upgraded to support the latest version.

1. 98 Basic User Licenses
2. 220 Enhanced User Licenses.

In case bidder is proposing a different vendor solution,

- IP phones. (200 Phones with Dual Line, Greyscale Display and 120 Phones with Color Display and Camera Option).
- Redundant voice gateways (6 PRIs, 8 FXO, 8 FXS, and dual power supplies each).
- IP Exchange Software should be part of the solution.
- Proposed solution must be able to support 1,000 users in future.

2.2 Cisco Wifi Network Expansion

Item	Sr.#	Part #	Description	Qty
Wireless	1	AIR-CT5508-K9	5508 Series Controller	02

PITB currently has Cisco WLC 5508 deployed with Cisco 1242G series Access Points. We need to upgrade these Access Points to support the latest 802.11ac wave 2 standards to provide higher throughput to the users. The upgraded access points should have support for 802.11a/b/g/n/ac with 3x3 MU-MIMO and minimum 2 spatial streams. Must be able to operate in standalone as well as controller mode.

No. of Cisco access points that need to be upgraded: 42
No. of Licenses to be upgraded from 50 to 100

Total No. of access points required (in case of other vendor solution): 70 with Redundant Physical WLC Controllers.

2.3 Warranty

1. The bidder shall provide comprehensive, principal-backed warranty for all the supplied equipment/ solution for 3 years without any extra cost.
2. The bidder shall also provide software support and subscription services/licenses for the quoted equipment for 3 years without any extra cost.
3. The equipment shall be covered under 8x5xNBD advance replacement warranty for three years.
4. Successful bidder shall be responsible for providing software upgrades, update patches and bug-fixes during the warranty period.
5. 24x7x365 technical support shall be available from principal vendor through online portal.
6. Purchaser shall be able to create RMA requests and Technical Support Tickets by using its own / partner login to the principal vendor's website.
7. Principal vendor must maintain local spares depot for warranty replacements.

LOT # 3 WARRANTIES FOR CISCO ASR

BOQ

Sr.#	Item Description	Qty
1	**Warranties for Cisco ASR**	
	ASR1002-10G-VPN/K9	2
	ASR1000-ESP10	2
	SASR1R1-AESK9-31S	2
	ASR1002-PWR-AC	4
	FLASR1-IPSEC-RTU	2
2	**ASR 1002 MODULE:** 5 Port GE:SPA-5x1GE-V2	2
3	**PVDM Card for Voice Gateway Cisco 3945** PVDM3 DSP DIMM with 192 Channel	1

NOTE: NBD advanced hardware replacement and software upgradation/support warranty for the period from 1st November, 2019 till 30th April, 2021 verifiable from principal.

TECHNICAL SPECIFICATIONS

3.1 Support Services/ Warranties for Cisco ASR'

PITB Currently has below Routers installed in their Data Centers. Support services are required for these covering 24 Hours TAC Support availability and Replacement of faulty hardware within 4 hours. Coverage is required for the period from 1st November, 2019 till 30th April, 2021.

Sr. No.	Device	Description	Qty	Serial No.	Support part No.
1	ASR1002-10G-VPN/K9	ASR1002 VPN Bundle w/ ESP-10G,AESK9,License,4GB DRAM	2	FOX1517GG6T, FOX1504GCVH	CON-SNT- 210GVK
2	ASR1000-ESP10	Cisco ASR1000 Embedded Services Processor, 10G	2		
3	SASR1R1-AESK9-31S	Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES	2		
4	ASR1002-PWR-AC	Cisco ASR1002 AC Power Supply	4		
5	FLASR1-IPSEC-RTU	Encryption Right-To-Use Feature Lic for ASR1000 Series	2		

3.2 ASR Module

Following module is required for existing ASR1002 .
Quantity 2 - "5 Port GE:SPA-5x1GE-V2"

3.3 PVDM Card for Voice Gateway Cisco 3945

Quantity 1 - "PVDM3 DSP DIMM with 192 Channel"

3.4 Warranty

1. The bidder shall provide comprehensive, principal-backed warranty for all the supplied equipment.
2. The equipment shall be covered under 24x7x4 advance replacement warranty for the period from 1st November, 2019 till 30th April, 2021.
3. Successful bidder shall be responsible for providing software upgrades, update patches and bug-fixes during the warranty period.
4. 24x7x365 technical support shall be available from principal vendor through online portal.
5. Purchaser shall be able to create RMA requests and Technical Support Tickets by using its own / partner login to the principal vendor's website.
6. Principal vendor must maintain local spares depot for warranty replacements.

LOT # 4 – Servers (3)

Sr. No.	Items	Specifications
1	Device	2U Rack Server
2	Processor	(2 x Intel Xeon Scalable Processor Silver 4114 processor 13.75MB L3 Cache, base frequency 2.20 GHz, 10 cores, 20 Threads) or higher
3	Memory	4 x 32GB DDR4-2400 ,2400MHz, ECC memory
4	Disk	3 x 1.2TB SAS 10K RPM, 12Gbps, equivalent or higher
5	RAID Controller	Independent RAID controller card, 12Gb/s, support RAID 0, 1, 5, 10 or more
6	Network Adapter	4 x GE port and 2 x 10GE port with transceivers
7	Optical Drive	1 x built-in DVD-RW
8	Power supply	Redundant hot-swappable PSUs
9	Stability	Support long-term operating temperature under specific conditions
10	System Management	Enterprise version system management software with full features. Support independent remote management through graphical user interfaces. Users can access the server remotely and take full control including remote startup, shutdown, and reset, and virtual floppy and DVD-ROM drives. The remote management should be independent of server OS
11	Compatibility	Supports mainstream operating systems, such as Windows, Redhat Linux, SuSE Linux, VMware

NOTE: 3 year NBD advanced hardware replace without any extra cost

NOTE: Duly filled above technical specifications sheets with required information must be enclosed in their respective technical bids against relevant lot(s) by the bidder(s).

FORMS & OTHER REQUIRED DOCUMENTS

ANNEXURE-B

Technical Proposal Submission Form

[Location, Date]

To _(Name and address of Client / Purchaser)_

Dear Sir,

We, the undersigned, offer to provide the _(insert title of assignment)_ in accordance with your Request for Proposal/Tender Document No._____ dated _(insert date)_ and our Proposal. We are hereby submitting our Proposal, which includes the Technical Proposal and the Financial Proposal sealed in two separate envelopes.

We undertake, if our Proposal is accepted, to provide supply of _____related to the assignment.

We also confirm that the Government of Pakistan / Punjab has not declared us, or any, ineligible on charges of engaging in corrupt, fraudulent, collusive or coercive practices. We furthermore, pledge not to indulge in such practices in competing for or in executing the Contract, and we are aware of the relevant provisions of the Proposal Document.

We understand you are not bound to accept any Proposal you receive.

We remain,

Yours sincerely,

Authorized Signature (Original)

(In full and initials)

Name and Designation of Signatory

Name of Firm

Address

ANNEXURE-C

Financial Proposal Submission Form (Part of Financial Bid Envelope)

[Location, Date]

To _(Name and address of Client / Purchaser)_

Dear Sir,

We, the undersigned, offer to provide the _(Insert title of assignment)_ in accordance with your Request for Proposal No._____ dated _(insert date)_ and our Technical Proposal. Our attached Financial Proposal is for the sum of _(insert amount in words and figures)_. This amount is inclusive of all taxes.

Our Financial Proposal shall be binding upon us up to expiration of the validity period of the Proposal, i.e. before the date indicated in _____ of the Proposal Data Sheet.

We also declare that the Government of Pakistan / Punjab has not declared us or any Sub-Contractors for any part of the Contract, ineligible on charges of engaging in corrupt, fraudulent, collusive, or coercive practices. We furthermore, pledge not to indulge in such practices in competing for or in executing the Contract, and are aware of the relevant provisions of the Proposal Document.

We understand you are not bound to accept any Proposal you receive.

Signed
In the capacity of:
Duly authorized to sign the proposal on behalf of the Applicant.
Date:

ANNEXURE-D

Price Schedule / Financial Cost Sheet (against each lot)

Lot No. 01

CORE NETWORK EQUIPMENT

Sr.#	Item Description	Quoted Item (s) (Make & Model)	No of Units/ QTY -1	Unit Rate (Incl. all Taxes if applicable) Rs. -2	Total Cost (Incl. all Taxes) Rs. (3=1x2)
1	Spine Switch with 30 x 40G/100G Fiber Ports, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.		2		
2	Leaf Switch, Type-I with 48 x 1G/10G Copper Ports and 6 x 40G/100G Fiber Uplinks, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.		2		
3	Leaf Switch, Type-II with 48 x 1G/10G/25G Fiber Ports and 6 x 40G/100G Fiber Uplinks, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.		2		
4	Leaf Switch, Type-III with 48 x 100Mbps/1000Mbps Copper Ports, 4 x 10G/25G Fiber Ports and 2 x 40G/100G Fiber Uplinks, SDN Features Enabled, Redundant Power Supplies, Hot Swappable Fans. 3 Years 8x5xNBD HW/SW Support.		4		
5	SDN Controller Cluster with Minimum three (03) Physical Appliances or three (03) Virtual Appliances with Dedicated Hardware/Software/OS. 10G redundant uplinks. Redundant Power Supplies. 3 Years 8x5xNBD HW/SW Support.		1		
6	Modular Campus Aggregation Switch with minimum 7 Slots (2 x Supervisor + 5 I/O Slots). Interface Requirement: 48x1G Copper, 48x1G Fiber and 48x10G Fiber Ports. Additional 8x10G OR 2x40G Fiber Interfaces. Single Supervisor Installed with support for Redundant Supervisor. One Expansion Slot for Future Requirements. Redundant Power Supplies and Fan Trays. 3 Years 8x5xNBD HW/SW Support.		2		
7	**Transceiver Modules**				
	-- 100GBASE QSFP Active Optical Cable, 30m		16		
	-- 10G Active cable assembly, 10m		14		
	-- 10GBASE-SR SFP Module, Multi-mode Fiber		20		
	-- 1000BASE-SX SFP transceiver module, MMF		130		
	* Bidder can use the below mentioned Cisco transceiver modules if they are compatible with proposed switches. Bidder must provide 3 years warranty if the existing tranceiver modules are used.				
	-- SFP-GE-T		100		
	-- GLC-T		4		
	-- GLC-SX-MM		50		
	-- SFP-10G-SR		96		
	-- SFP-H10GB-CU5M		12		
8	**Warranty Services, 8x5xNBD Advance Replacement with Recurring License Costs and Subscriptions (Optional but must be qouted)**				
	-- 4th Year		1		
	-- 5th Year		1		
Total Bid Cost					**X = Sum (Sr. 1 - 8)**

NOTE:

(i) X will determine the total bid cost for all items separately for each lot.

(ii) Prices must be quoted for all items separately for each lot.

(iii) Hardware/software/solution quoted must be legally imported in Pakistan after paying all taxes.

(iv) The Purchaser reserves exclusive rights to increase/decrease the quantities of the Hardware/software/solution / IT Equipment mentioned vide this tender document.

(v) Standard Warranty/support for three (03) years after purchase of equipment.

(vi) The bidder(s) can add extra items in the BOQ for completion of their respective quoted solution and in that case, price of extra items must be included in the total bid cost.

Date _____

Signature of authorized person

Name:

(Company Seal)

_____

In the capacity of

Duly authority by

Note: No cutting or overwriting is allowed. Any cutting or overwriting will lead to rejection of the financial bid.

Lot No. 02

UPGRADE OF EXISTING IPT SOLUTION

Sr. No.	Item Description	Quoted Item (s) (Make & Model)	No of Units/QTY (1)	Unit Rate (Incl. all Taxes if applicable) Rs. (2)	Total Cost (Incl. all Taxes) Rs (3=1x2)
1	**Cisco Unified Call Manager Upgrade from 8.x to 12.x with below licenses:** -- 98 x Basic User Licenses -- 220 x Enhanced User Licenses -- 3 Years SW Support -- PITB will provide required virtual machines for installation * Bidder can propose alternate solution for 318 Users in case of any other brand than Cisco.		1		
2	**Cisco Wifi Network Expansion** -- 802.11ac Wave 2, 3x3 MU-MIMO, 2 Spatial Streams. 3 Years8x5xNBD HW/SW Warranty. -- Must be supported by existing 2 x Cisco 5508 WLAN Controllers. * Bidder can propose alternate solution with 70 Access Points and Redundant WLC Controller in case of any other brand than Cisco.		42		
Total Bid Price					X

NOTE:

(i) X will determine the total bid cost for all items

(ii) Prices must be quoted for all items.

(iii) Software/Hardware quoted must be legally imported in Pakistan after paying all taxes.

(iv) The Purchaser reserves exclusive rights to increase/decrease the quantities of the Hardware/Software/IT Equipment mentioned vide this tender document.

(v) Standard support for three (03) years after purchase of software

Date _____

Signature of authorized person

Name:

(Company Seal)

_____

In the capacity of

Duly authority by

Note: No cutting or overwriting is allowed. Any cutting or overwriting will lead to rejection of the financial bid.

Lot No. 03

WARRANTIES & Modules FOR CISCO ASR

Sr. #	Device	Description	Quoted Item (s) (Make & Model)	No of Units/QTY (1)	Unit Rate (Incl. all Taxes if applicable) Rs. (2)	Total Cost (Incl. all Taxes) Rs. (3=1x2)
1	ASR1002-10G-VPN/K9	ASR1002 VPN Bundle w/ ESP-10G, AESK9, License, 4GB DRAM		2		
2	ASR1000-ESP10	Cisco ASR1000 Embedded Services Processor, 10G		2		
3	SASR1R1-AESK9-31S	Cisco ASR 1000 Series RP1 ADVANCED ENTERPRISE SERVICES		2		
4	ASR1002-PWR-AC	Cisco ASR1002 AC Power Supply		4		
5	FLASR1-IPSEC-RTU	Encryption Right-To-Use Feature Lic for ASR1000 Series		2		
Total Cost of Warranties						**Y**
Modules						
Sr. No.	**Item Description**		**Quoted Item (s) (Make & Model)**	**No of Units/QTY (1)**	**Unit Rate (Incl. all Taxes if applicable) Rs. (2)**	**Total Cost (Incl. all Taxes) Rs. (3=1x2)**
1	**ASR 1002 MODULE**	5 Port GE:SPA-5x1GE-V2		2		
2	**PVDM Card for Voice Gateway Cisco 3945**	PVDM3 DSP DIMM with 192 Channel		1		
Total Cost of Modules						**Z**
Total Bid Cost						**X = Y + Z**

NOTE:

(i) X will determine the total bid cost for all items

(ii) Prices must be quoted for all items.

(iii) The Purchaser reserves exclusive rights to increase / decrease the quantities of the Goods / warranties for CISCO ASR mentioned vide this tender document.

(iv) Standard Warranty / support for the period from 1st November, 2019 till 30th April, 2021.

Date _____

Signature of authorized person

Name:

(Company Seal)

_____

In the capacity of

Duly authority by

Note: No cutting or overwriting is allowed. Any cutting or overwriting will lead to rejection of the financial bid.

Lot No. 04

SERVERS

Sr. No.	Item Description	Quoted Item (s) (Make & Model)	No of Units/QTY (1)	Unit Rate (Incl. all Taxes if applicable) Rs. (2)	Total Cost (Incl. all Taxes) Rs (3=1x2)
1	SERVERS		03		
Total Bid Price					X

NOTE:

(i) X will determine the total bid cost for all items

(ii) Prices must be quoted for all items.

(iii) Hardware quoted must be legally imported in Pakistan after paying all taxes.

(iv) The Purchaser reserves exclusive rights to increase/decrease the quantities of the Hardware / IT Equipment mentioned vide this tender document.

(v) Standard Warranty/support for three (03) years after purchase of equipment.

Date _____

Signature of authorized person

Name:

(Company Seal)

_____

In the capacity of

Duly authority by

Note: No cutting or overwriting is allowed. Any cutting or overwriting will lead to rejection of the financial bid.

ANNEXURE-E

Format for Covering Letter

To

(Name and address of Purchaser)

Sub: _____.

Dear Sir,

a) Having examined the tender document and Appendixes we, the undersigned, in conformity with the said document, offer to provide the said items on terms of reference to be signed upon the award of contract for the sum indicated as per financial bid.

b) We undertake, if our proposal is accepted, to provide the items/services comprise in the contract within time frame specified, starting from the date of receipt of notification of award from the client Department / Office.

c) We agree to abide by this proposal for the period of ____ days (as per requirement of the project) from the date of bid opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

d) We agree to execute a contract in the form to be communicated by the _(insert name of the Purchaser)_, incorporating all agreements with such alterations or additions thereto as may be necessary to adapt such agreement to the circumstances of the standard.

e) Unless and until a formal agreement is prepared and executed this proposal together with your written acceptance thereof shall constitute a binding contract agreement.

f) We understand that you are not bound to accept a lowest or any bid you may receive, not to give any reason for rejection of any bid and that you will not defray any expenses incurred by us in biding.

_____

Authorized Signatures with Official Seal

ANNEXURE-F

INSTRUCTION FOR PREPARATION OF POWER OF ATTORNEY

a) To be executed by an authorized representative of the bidder.

b) The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants and when it is so required the same should be under common seal affixed in accordance with the required procedure.

c) Also, wherever required, the Bidder should submit for verification the extract of the charter documents and documents such as a resolution/power of attorney in favor of the Person executing this Power of Attorney for the delegation of power hereunder on behalf of the Bidder.

d) In case the Application is signed by an authorized Director / Partner or Proprietor of the Applicant, a certified copy of the appropriate resolution / document conveying such authority may be enclosed in lieu of the Power of Attorney.

Format of Power-of-Attorney

POWER OF ATTORNEY

(On Stamp Paper of relevant value)

Know all men by these presents, we (name of the company and address of the registered office) do hereby appoint and authorize Mr. (full name and residential address) who is presently employed with us and holding the position of as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our proposal for (name of the project) in response to the tenders invited by the (name of the Purchaser) including signing and submission of all documents and providing information/responses to (name of the Purchaser) in all matters in connection with our Bid.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Dated this _____ day of _____ 20__

For _____

(Signature)

(Name, Designation and Address)

Accepted

(Signature)

(Name, Title and Address of the Attorney)

Date:

ANNEXURE-G

UNDERTAKING

It is certified that the information furnished here in and as per the document submitted is true and correct and nothing has been concealed or tampered with. We have gone through all the conditions of tender and are liable to any punitive action for furnishing false information / documents.

Dated this _____ day of _____ 20__

Signature

(Company Seal)

_____

In the capacity of

Duly authorized to sign bids for and on behalf of:

ANNEXURE-H

PERFORMANCE SECURITY

Issuing Authority:
Date of Issuance:
Date of Expiry:

WHEREAS [Name and Address of the Contractor] (hereinafter called "the Contractor") has agreed to supply the Goods and render the Services against Tender Name. _____, 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 Contractor shall furnish Performance Security, within twenty eight (28) days of the receipt of the Acceptance Letter (Letter of Acceptance) from the Purchaser, in the form of a Bank Guarantee, issued by a scheduled bank operating in Pakistan, as per this format, for a sum equivalent to Rs._____(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 before the expiry of the Guarantee.

This guarantee shall remain valid up to _____ or until expiry of warranties / support period or all obligations have been fulfilled in accordance with the Contract, **whichever is later**.

Date this _____day of 2019.

GUARANTOR

Signature _____

CNIC # _____

Name _____

Designation _____

Address _____