**NATIONAL INSTITUTE OF TECHNOLOGY TIRUCHIRAPPALLI**

**TENDER NOTIFICATION NO.:** CSG/TENDER/PLAN/ACTIVE/NOV/2016Dated: 15/11/2016

**PRE-BID MEETING HELD ON 23-NOV-2016**

MINUTES OF PRE-BID MEETING

1. **Flash Memory: Type 1 to 8**

“Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ CPU, 1GB RAM, **512MB Flash or above**.”

Changed as

“Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ CPU, 1GB RAM, **1GB Flash or above.”**

1. **Type 11 and Type 12 : Point No. 13**

“Should support Virtual switch containers for multitenancy which allows the switch to be segmented into individual virtual switches. Each virtual switch can have their own routing table and protocol crash in one virtual switch does not affect the other virtual switches. Equivalent technologies like VDC, MDC, LSYS, **VR/VRF** or equivalent can be offered. “

Changed as

“Should support Virtual switch containers for multitenancy which allows the switch to be segmented into individual virtual switches. Each virtual switch can have their own routing table and protocol crash in one virtual switch does not affect the other virtual switches. Equivalent technologies like VDC, MDC, LSYS, **VR** or equivalent can be offered.”

NATIONAL INSTITUTE OF TECHNOLOGY

TIRUCHIRAPPALLI – 15

**Computer Support Group**

**Web : www.nitt.edu Phone : 0431 - 2503800**



TENDER DOCUMENT

**Tender Notification No.: CSG/TENDER/PLAN/ACTIVE/NOV/2016 Dated: 15/11/2016**

Name of the Work **:** Active Components [Networking]

Quantity required **: As per the Tender Document**

EMD Amount **: Rs. 3,00,000/-**

Cost of the Tender Document **: Rs. 500/- [Only downloadable through website]**

Delivery, Installation &

Commissioning **: Within 6 weeks from the date of placing of purchase order**

Last Date of submission of Tender **: 07/12/2016 up to 3.00 p.m.**

Address for submission of Tender **: “**The Head, Computer Support Group,

 National Institute of Technology, Tiruchirappalli 620015,

 Tamilnadu, India”

 Kind ATTN to: “**Dr. Ramakalyan Ayyagari,**

**Head of the Department, CSG”**

Date of opening of bid : **07/12/2016 at 3.30 p.m**

***Important Dates & Timings***

|  |  |  |  |
| --- | --- | --- | --- |
| **Meeting / Opening** | **Date** | **Time** | **Venue** |
| ***Pre-Bid Meeting*** | ***23/11/2016*** | ***02.00 p.m.*** | **Conference Hall, CSG** |
| ***Last Date & Time for Receipt of Bid*** | ***07/12/2016*** | ***03.00 p.m.*** | **Despatch Section, Main Office** |
| ***Opening of Technical bids*** | ***07/12/2016*** | ***03.30 p.m.*** | **Conference Hall, CSG** |
|  | **NATIONAL INSTITUTE OF TECHNOLOGY****TIRUCHIRAPPALLI – 15** |

**Computer Support Group**

**Tender Notification No.: CSG/TENDER/PLAN/ACTIVE/NOV/2016 Dated: 15/11/2016**

**NOTICE INVITING TENDER**

The National Institute of Technology, Tiruchirappalli (NIT-T) is an autonomous body under MHRD, GOI, imparting Technical Education and engaged in Research Activities. It is proposed to procure the following component for the departmental academic/research activities.

 Sealed Quotations under ***Three cover system*** are invited for the Active Components [Networking] subject to the following terms and conditions, from the reputed manufacturers or their authorized dealers so as to reach this office on or before scheduled date and time. The technical cover and the price bid cover will be opened on the same day in the presence of bidders or their authorized agents who may choose to be present.

Name of the Work **:**Active Components [Networking]

Quantity required **: As per the Tender Document**

EMD Amount **: Rs.3,00,000/-**

Cost of the Tender Document **: Rs. 500/-** [Only downloadable through website]

Time for completion of : **Within 6 weeks from the date of placing of**

Supply& Installation after **purchase order**

placing purchase order

Last Date of submission of Tender **: 07/12/2016 up to 3.00 p.m.**

Tender to be submitted at the : The Head, Computer Support Group,

following address National Institute of Technology,

 Tiruchirappalli – 620015, Tamilnadu, India

 Kind ATTN to: “**Dr.Ramakalyan Ayyagari,**

 **Head of the Department, CSG”**

***Important Dates & Timings***

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**Note :** The Institute shall not be responsible for any postal delay about non-receipt / non delivery of the bids
or due to wrong addressee.

INSTRUCTIONS TO BIDDERS

**BIDDER’S COPY**

1. This document set contains the following:
2. Section-1Eligibility of the Bidders & Tender Cover System
3. Section-2 Terms and conditions of the Tender & Details of the Firm offering this Quote
4. Section -3 Scope of Work, Schedule of Requirements [Technical Specifications] and Allied Details
5. Section-4 Price Schedule & Price Bid Formats
6. Section-5 Contract Form
7. Section-6 Bid Security /EMD Bank Guarantee [Specimen]

g) NIT-T’s check list copy

1. The bidder’s copy is for your future records. Please fill in and return only NIT-T’s copy.
2. The bidder should give details of their technical soundness and provide list of customers of previous supply of similar items to Universities, Institutes or Government Departments/Undertakings/public sectors with contact details. The details of the agency/profile should be furnished along with the copy of all related documents.
3. Read through the terms and conditions given and affix your signature and seal if you find them acceptable. Any deviations may be recorded. Read carefully list of specifications that we have enclosed.
4. Fill in the questionnaire regarding the Firm.
5. The downloaded documents: Section 2 -Terms and conditions of the Tender & Details of the Firm offering this quote. Section-3 Scope of work, Schedule of requirements [Technical Specifications] and Allied details, Section-4 Price Schedule & Price Bid Formats, Section-5 Contract Form, and Section-6 Bid Security / EMD Bank Guarantee [Specimen] should be **TYPE WRITTEN USING CAPITAL LETTERS ONLY**. At the time of filling the “**All the documents**” make sure that you have not missed anything. Specify the model number & specification for each item. The form should be filled item-wise. Do not leave blank fields. If you are not quoting for a specific item, you should specify “**NOT QUOTING”.**
6. **Do not use** ambiguous terms like **“yes”, “complied” or “available”.** Specifically mention the matching specification of the product offered by you. Make sure that you have affixed your signature with date and seal on all the documents.
7. Please send the tenders in a sealed envelope super scribed as **“QUOTATIONS AGAINST TENDER NOTIFICATION NO: CSG/TENDER/PLAN/ACTIVE/NOV/2016 Item Name: Active Components [Networking]”** so as to reach “The Head, Computer Support Group, National Institute of Technology, Tiruchirappalli 620015, Tamilnadu, India” on or before **07/12/2016at 3.00 p.m. along with a Softcopy of the Technical Compliance form and Quotation Forms in MS-Word or MS-Excel file format in a CD/DVD.**
8. For any further clarifications, contact by E-Mail: csghod@nitt.edu or by written request to “The Head, Computer Support Group, National Institute of Technology, Tiruchirappalli 620015, Tamilnadu, India”
9. Pre-bid meeting will be held on **23/11/2016 at 02.00 p.m** in the Conference Hall, Computer Support Group, National Institute of Technology, Tiruchirappalli 620015, Tamilnadu, India

 **Last Date for receipt of tender at NIT-T : 07/12/2016 at 3.00 p.m.**

**Opening Date for Tender : 07/12/2016 at 3.30 p.m.**

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|  **CHECKLIST TO BE FILLED IN BY BIDDER** |
| List of documents to be enclosed | Completed & Signed |
| 1. Duly filled & signed Terms and conditions of the Tender & Details of the Firm offering this Quote,  Declaration | YES / NO |
| 2. Duly Filled & signed forms of Schedule ofrequirements[Technical Specifications] and Allied Details | YES / NO |
| 3. Duly Filled in signed Price Schedule & Price Bid Formats | YES / NO |
| 4. Duly Filled in signed Contract Form | YES / NO |
| 5. Other technical specifications & pamphlets | YES / NO |

**Please retain this page with you for your future reference.**

**BIDDER’S COPY**

**Section-1**

**ELIGIBILITY OF THE BIDDERS**

1. The firm should have successfully supplied the Active Components [Networking].

a. three similar type Active components supplied& installed at the total cost of each Rs.60 Lakhs or more or

b. two similar type Active components supplied & installed at the total cost of each Rs.75 Lakhs or more or

c. one similar type of Active components supplied & installed at the total cost of Rs.120 Lakhs or more

in a single project (in the following format in bidder’s letter head duly signed and sealed)

\*\*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl.No. | Customer Name & Address | Contact person Name, Mobile and Email ID | Date of Implementation & Duration taken for completion | Value of the Executed project |

\*\* The bidder should produce documentary support the above point no.1

**Please retain this page with you for your future reference.**

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| Section 1-A. TENDER COVER SYSTEM**Type 1 TO 10**1.0 Bids are to be submitted under **THREE COVER** system for type 1 to 10:1.1 **Cover 1**: Cover 1 should contain the following: a. EMD - Earnest Money Deposit (EMD) of **Rs.3,00,000/-** is to be remitted by way of Demand Draft drawn on any Nationalized bank in India in favour of “**The Director, NIT, Trichy**” payable at Trichy should be submitted. EMD shall bear no interest. (or) a bank guarantee for an amount of Rs.3,00,000/-with a validity till December 31, 2017 (or) up to the finalisation of tender. [ The format for the same is attached in Section-6] After the initial purchase the same pricing must be valid for one year for possible additional purchases as and when required. This will be used for arriving at NIT-T rate contract.b. Cost of the tender document of **Rs.500/-** is to be remitted by way of Demand Draft drawn on any Nationalized bank in India in favour of “**The Director, NIT, Trichy**” payable at Trichy should be submitted.Any bid not accompanying with **EMD/Bank Guarantee** and Tender cost is liable to be treated as non-responsive and rejected. **The cover 1** shall be super scribed as ‘**Earnest Money Deposit and Tender Cost**’ duly indicating the Tender reference No. and the due date of opening. 1.2 **Cover 2**:  Cover 2 should contain the following: a. Technical pamphlets- b. Detailed technical specification c. The agency should furnish copy of license certificate for manufacture/supply of the item\* d. The agency should furnish Income Tax PAN number & TIN number.\* e. The agency should furnish the last three years balance sheet approved by the CA and the IT  clearance certificate.\* f. Warranty period offered for the tendered item to be specified. If the warranty period is not conforming with the schedule of requirements given in section 3 of the document, the bid is liable to be treated as non-responsive and rejected. g. Duly filled up technical questionnaire, if any h. Duly filled up deviation schedules to technical specification i. Copy of supply orders completed during the last three years j. If the prices are revealed either in the cover 1 or in the cover 2, the offer will be summarily rejected. The **cover 2** shall be super scribed as ‘**Technical cover (Item 1 to 10)**’ duly indicating the Tender reference No. and the due date of opening. \* Appropriately pertaining to the country of origin.1.3 **Cover 3**: Cover 3 should contain the following Cover 3 shall contain Price only and shall be super scribed as ‘**Price Cover (Type 1 to 10)**’ duly indicating the Tender Reference No. and the due date of opening. The price bid should adhere to the format given in Annexure B. Each Cover shall be sent in a double sealed cover. The inner covers (Cover 1, Cover 2 and Cover 3) should be sealed individually with the Sellers’s distinctive seal and super scribed with the tender reference no. and due date of opening. All the three inner covers shall be placed in a common outer cover which shall also be sealed with seller’s distinctive seal and super scribed with the tender reference no. and due date of opening. Mention “**Kind Attention: Dr.Ramakalyan Ayyagari, Head of the Department, CSG**” and submit at the address given in the Notice Inviting Tender. Cover 1and Cover 2 will be opened on the scheduled date and time mentioned in the tender enquiry. Cover 3will be opened on a date which will be intimated to the technically qualified bidders.**BIDDER’S COPY****Please retain this page with you for your future reference.** |

Section 1-B. TENDER COVER SYSTEM

**Type 11 & Type 12**

1.0 Bids are to be submitted under **TWO COVER** system for Type 11 & 12:

1.1**Cover4**:

 Cover 4 should contain the following:

a. Technical pamphlets-

b. Detailed technical specification

c. The agency should furnish copy of license certificate for manufacture/supply of the item\*

d. The agency should furnish Income Tax PAN Number& TIN number.\*

e. The agency should furnish the last three years balance sheet approved by the CA and the IT
 clearance certificate.\*

f. Warranty period offered for the tendered item to be specified. If the warranty period is not
conforming with the schedule of requirements given in section 3 of the document, the bid is

liable to be treated as non-responsive and rejected.

g. Duly filled up technical questionnaire, if any

h. Duly filled up deviation schedules to technical specification

i. Copy of supply orders completed during the last three years

j. If the prices are revealed in the cover 4, the offer will be summarily rejected. The cover 4 shall be super scribed as ‘**Technical cover (Type 11& Type 12)**’ duly indicating the Tender reference No. and the due date of opening.

\* Appropriately pertaining to the country of origin.

1.2 **Cover5**:

Cover 5 should contain the following

Cover 5 shall contain Price only and shall be super scribed as ‘**Price Cover (Type11 & Type 12)**’ duly indicating the Tender Reference No. and the due date of opening. The price bid should adhere to the format given in Annexure B.

Each Cover shall be sent in a double sealed cover. The inner covers (Cover 4 and Cover 5) should be sealed individually with the Sellers’s distinctive seal and super scribed with the tender reference no. and due date of opening. All the three inner covers shall be placed in a common outer cover which shall also be sealed with seller’s distinctive seal and super scribed with the tender reference no. and due date of opening.

Mention **“Kind Attention: Dr.Ramakalyan Ayyagari, Head of the Department, CSG”** and submit at the address given in the Notice Inviting Tender.

Cover 4 will be opened on the scheduled date and time mentioned in the tender enquiry.

Cover 5will be opened on a date which will be intimated to the technically qualified bidders.

**Please retain this page with you for your future reference.**

**BIDDER’S COPY**

**Section 2. “TERMS AND CONDITIONS FORM”**

**IMPORTANT: READ ALL THE FOLLOWING TERMS AND CONDITIONS AND**

**SIGN THE ACCEPTANCE CLAUSE FOLLOWING IT**

1. The offers should be addressed to “The Head, Computer Support Group, National Institute of Technology, Tiruchirappalli 620015, Tamilnadu, India” and should be sent in a sealed envelope super scribed **“QUOTATIONS AGAINST TENDER NOTIFICATION No. CSG/TENDER/PLAN/ACTIVE/NOV/2016 Item Name: Active Components [Networking]”** so as to reach us **on or before07/12/2016 at 3.00 p.m.**
2. Each offer should be sent in a sealed cover with the tender documents. Tenders received through email or FAX will not be considered. **Softcopy of the Technical Compliance form and Quotation Forms should be submitted along with the tender in MS-Word or MS-Excel file format in a CD/DVD. However, if there is any dispute between Hard copy and Soft copy, Hard copy will be taken.**
3. The tenders will be opened on **07/12/2016 at 3.30 p.m.**in the presence of the vendors present with authorization letter from the respective companies / firms. Suppliers intending to attend the tender opening should intimate us in advance.
4. Full technical specifications and pamphlets should be sent along with the tenders. **Offers without proper technical specifications will be rejected.**
5. The rate quoted should be on unit basis (excluding taxes and other charges). Taxes and other charges should be quoted separately, considering exemptions if any.
6. All offers should indicate the taxes and duties applicable, if any. Additional charges for packing, forwarding, freight, insurance etc., if any, should be clearly mentioned. Clearance at Customs will be arranged by NIT-T.
7. NIT-T is paying concessional Customs & Excise duty under Government of India Notification No.51/96 for Central Customs and 10/97 for Central Excise Duty vide Certificate No.TU/V/RG-CDE(183)/2011 dt.10.10.11. Currently the purchaser is paying 5% Basic Customs Duty, 2% Educational Cess on Basic Customs Duty, 1% Higher Education Cess on Educational Cess, and 4% Import Additional Duty.
8. Our institute has Department of Scientific & Industrial Research (DSIR) certificate valid till 31-08-2021 for claiming Central Customs Duty and Central Excise Duty Exemption.
9. NIT-T is exempted from the payment of Service Tax for the services coming under the category of “Educational Auxiliary Services” under Government of India Notification No.25/2012-Service Tax dated 20-JUNE-2012.
10. The Institute is not authorized to issue C and D forms of Sales tax certificate.
11. In case the offered items are to be imported, the rates should be quoted in foreign currency on C.I.F. Chennai Airport basis, and it should include the Freight up to Chennai airport and the insurance cover should be up to National Institute of Technology, Tiruchirappalli. The Customs Duty and other duties should be clearly mentioned in the price schedule (Section 4).
12. If the price quoted is in foreign currency and if the order value is more than US$10,000 then 95% payment will be made through **Letter of Credit (LC) at sight on acceptance after installation**. If the order value is less than US$10000, then 95% payment will be through a Telegraphic Transfer (TT) after installation. **The bank charges outside India should be borne by the Supplier / Beneficiary. Part shipment not allowed**. If the price quoted is in Indian Rupees, then 95% payment will be made only after installation and commissioning. Balance 5% payment will be made at the end of 5th year.
13. **No advance payment will be made.**
14. No revision of the price bid will be allowed once the price bids are opened. In case of foreign currency,

the agency should mention the % of currency fluctuations they can bear.

1. No increase in price will be allowed after our firm orders are placed.
2. **Payment of excise duty and sales tax / VAT (on ultimate products)** as applicable on the closing date of tender will be to the supplier’s / contractor’s account. Any statutory variation (both plus and minus) in the rate of excise duty/sales tax/VAT after closing date of tender/revised price bid but before the expiry of the contractual delivery / completion period will be to the account of the office.

The bidder(s) will indicate, in their bid, the amount with exact rate of the Excise and Sales tax/VAT on ultimate finished product, as applicable at tendering stage, separately in the bid. In case the above information subsequently is proved wrong, incorrect or misleading (a) this Institute will have no liability to reimburse the excess in the difference in rates of the item under which the duty/tax assessed finally (b) this Institute will have the right to recover the difference in case the rate of duty / tax finally assessed is on the lower side.

Any increase in excise duty, sales tax / VAT during extended period of the contract / supply order will be to supplier’s / contractor’s account where such extension in delivery of the materials/completion of the project was on the request of supplier / contractor. However, any decrease in excise duty/sales tax/ VAT during extended period of the contract / supply order, will be to the account of this Institute.

1. The warranty period should be clearly mentioned. The maintenance charges (AMC) under different schemes after the expiry of the warranty should also be mentioned.
2. Quote should come from authorized dealer or distributor or reseller for each of the product quoted. An authorization letter from the OEM should accompany your quote for each product quoted; otherwise it may lead to rejection.
3. The delivery period and other terms should be clearly mentioned.
4. Eligibility: Quotation from registered firms/companies / manufacturers under TNGST/CST / other statutory bodies alone be considered. Any Manufacturer / Supplier / Dealer who has been declared ineligible by World Bank/Government of India/Leading Technical Institutions funded by Govt. of India shall not be eligible to participate in this bid. Any fraudulent practices including concealing of facts at the time of submission of bid and there after shall lead to disqualification. List of beneficiaries especially from Educational Institutions / R & D Institutions should also be enclosed with the quotations.

For those instruments Cost exceeding 5,00,000/- the company should have (i) Three similar works, each of value not less than 40% of the estimated cost, or (ii) Two similar works, each of value not less than 50% of the estimated cost, or (iii) One similar work of value not less than 80% of the estimated cost, all amounts rounded off to a convenient full figure, in the last 7 years ending on the last day of the month previous to the one in which the tenders are invited.[**i.e. three similar type of Active components supplied and installed at the total cost of each Rs.60 Lakhs or more (or) two similar type of Active components supplied and installed at the total cost of each Rs.75 Lakhs or more (or)one similar type of Active components at the total cost of Rs.120 Lakhs or more in a single project]**.

1. Complete user, technical and service documentation, and spare parts catalogue are to be provided along with the supply of the item.
2. The vendors are informed that they should not call us over phone or contact us in person. All clarifications can be obtained through E-Mail/FAX/Post. Vendors shall not make attempts to establish unsolicited and un-authorized contact with us after the opening of the offers and prior to the notification of the award.
Any attempt by any vendor to bring to bear extraneous pressures on us shall be sufficient reason to disqualify the vendor.
3. Delay / loss in postal transit or due to other reasons will not be NIT-T’s responsibility.
4. We are not responsible for accidental opening of the covers that are not properly super scribed and sealed before the time scheduled for opening.
5. The tender should be made only on the formats given in this tender Sections which are available in our website, otherwise it shall lead to rejection. The technical details &prices should be filled as the formats given in this tender and to be filled up (preferably **TYPE WRITTEN IN CAPITAL LETTERS**) and should clearly mention the features offered by the bidder against each specification.
6. Authorized signatory should sign on all the pages. Bids without authorized signatures will be rejected.
7. The manufacturers of the quoted make of the product must be of national / international repute and having ISO certificate.
8. **Payment Terms**: 95% of payment after the successful Installation and commissioning of Ordered Equipments. Balance 5% of payment will be made at the end of 5th year and on certification for satisfactory performance by HOD, CSG, NIT-T.
9. **Liquidated damages:** If the bidder/supplier, after accepting the Purchase Order, fails to deliver any or all of the Goods within the period specified in the Order, NIT-T shall, without prejudice to its other remedies under the Rules of Purchase, proceed to cancel the order or agree to accept a delayed delivery on the condition of payment of liquidated damages by the bidder / supplier a sum equivalent to 0.50% of the total cost as indicated in the Purchase Order (which will be deemed as agreed price) for each week or part thereof of delay until actual delivery or performance is completed and such penal charges shall be limited to a maximum of 5% of the total cost. Once the maximum is reached NIT-T may proceed on its own to consider the termination / cancellation of the order.
10. **Five Years Comprehensive On-Site Warranty Support for Active Components: One on-site service engineer should be available during the 5 (five) years Comprehensive& Warranty period. The on-site service engineer should report on all working days including Saturday from 9.00 a.m. to 5.30 p.m. Preventive Maintenance should be performed twice every year during the first week of January and July during the 5 year on-site comprehensive warranty period. There should be minimum 5% local stocking of all the Active Components at NIT-T for Type 1 to Type 10. The downtime should be less than 24 hours. If the downtime exceeds 48 hours at a stretch then the duration of such downtime will be added to the warranty period and the warranty extended accordingly. The warranty start and end date will be counted from the date of installation and not from the date of shipment / billing. “Comprehensive on-site warranty with on-site support and service for both Parts and Labour” means that your engineer should visit the site / location where the problem is reported, then troubleshoot & identify the problem and replace the faulty part. NIT-T will not provide or do any troubleshooting at our end.**
11. **The vendors are informed that they (bidder, OEM & NIT-T) should sign a stamp paper agreement with us, for Warranty, AMC, etc. before placing the final purchase order as per our terms & conditions. The EMD will be returned to the supplier after the successful completion of supply and installation.**
12. Failure to comply with all the terms and conditions mentioned herein would result in the tender being summarily rejected.
13. Vendors are informed that once the companies are shortlisted based on the technical qualifications, then the price bids of the firms, which are technically qualified, only, would be compared to determine L1 bidder.
14. The order will be based on the actual requirement at the time of ordering, optional items may also be ordered based on the actual requirements at the time of ordering. Not quoting for this may result in disqualification.
15. NIT-T reserves the right to modify or alter the specifications after short listing of tenders.
16. NIT-T reserves the right to change the order quantity or split the orders among multiple vendors without assigning any reason(s) whatsoever.
17. NIT-T reserves the right to reject any or all the tenders without assigning any reasons whatsoever.
18. NIT-T reserves the right to increase / decrease the number of quantities of the items to be purchased

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| 1. The agencies should submit their rates as per the format given in Section 4 of the Notice Inviting Tender in this cover. All the pages of the bid should be signed affixing the seal. Avoid corrections and overwriting. All corrections and overwriting should be initialed.
 |
| 1. The tender will be acceptable only from the manufacturers or their authorized suppliers.
 |
| 1. The bid shall be in the format of price schedule given in Section 4. The contract form as per format given in section 5 shall be submitted. Incomplete or conditional tender will be rejected.
 |
| 1. Details of quantity and the specifications are mentioned in Section 3 appended to this Notice Inviting Tender.
 |
| 1. The item to be used is strictly according to the specification and subject to test by the Institute/concerned authorities. It must be delivered and installed in good working condition.
 |
| 1. The Contractor/Supplier shall have no claim to any payment of compensation or otherwise whatsoever, on account of any profit or advantage which he might have derived from the execution of the work/supply in full but he did not derive in consequence of the foreclosure of the whole or part of the works.
2. In case of dispute, the matter will be subject to Tiruchirappalli, Tamil Nadu Jurisdiction only.
3. **OEM developed NMS should be supplied along with the switches at free of cost. Details of the NMS along with its features should be enclosed along with the technical bid. During warranty period, any new versions/up gradation on NMS should be upgraded without any additional cost. Third party NMS or Open source NMS will not be accepted. Server Hardware and OS will be provided by NIT-T for NMS and other modules installation.**
4. **Quote for all types of switches, however NIT-T will buy either (type 1 to 11) or (type 1 to 10 and 12).**
5. **L1 will be arrived based on the least total value of**

1. Type 1 to Type 11 and less buyback value of existing core switch (BD 8810, details refer line no.52) **or**2. Type 1 to Type 10 plus Type 12 and less buyback value of existing core and distribution switch (1 number of BD 8810 and 2 numbers of BD 8806, details refer line no.52& 53) **(\*).****(\*) The buyback value of the existing switch is only for arriving of L1 bidder and the decision of buyback scheme is at NIT-T discretion**Note 1: Bidders should quote the value of the Type 11, Type 12 and the buyback value separately.Note 2: The L1 bidder will be arrived based on the conditions of either 1 or 2 of Point No.48 and the P.O. will be released subject to budget approval.1. After the initial purchase the same pricing must be valid for one year till December 31, 2017 for possible additional purchases as and when required. This will be used for arriving at NIT-T rate contract.
2. The OEM/Vendor should provide, at no additional cost, upgraded versions of the OS/firmware for all the switches, as and when released during the entire warranty period.
3. For Type 1-12, bidders must quote for the same OEM make.
4. **Details of existing good working condition CORE Switch for Buyback options for Type 11 & Type 12: One Number** of CORE Switch (Make: Extreme, Model: BD 8810) consists of old chassis, 3 SMPS, 48-port TX (copper) line card-4 Numbers, MSM-2 Numbers, 4x10G fiber line card - 2 Numbers, 48-port FX (fiber) line card-1 Number, 24-port FX (fiber) line card-1 Number.
5. **Details of existing good working condition Distribution Switch for Buyback options for Type 12: Two Numbers** of Distribution Switch (Make: Extreme, Model: BD 8806) consists of old chassis, 2 SMPS, 48-port TX (copper) line card-2 Numbers, MSM-2 Numbers, 4x10G fiber line card - 1 Number, 24-port FX line card-1 Number.
6. The 1GB Flash memory for Type 1 to Type 8: The OEM/Vendor should provide upgraded versions of the OS free of cost as and when it happens during the entire warranty period.
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| ***Release of EMD*:**The EMD shall be released to all bidders except successful bidder (L1). |
| ***Validity of bids:*** The rate quoted should be valid for a minimum of one year. No claim for escalation of rate will be considered after opening the Tender. |
| ***Imports*:**In case, goods are to be imported, the Indian agent should furnish authorization certificate by the principles abroad for submission of the bid in response to this Notice Inviting Tender. |
| ***Clarification of Tender Document*:** A prospective bidder requiring any clarification of the Tender document may communicate to the contact person given in this notice inviting tender.  |
| ***Amendment of tender document:***At any time prior to the last date of receipt of bids, Institute may for any reason, whether at its own initiative or in response to a clarification requested by prospective bidder, modify the Tender document by an amendment.

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| --- |
| ***The Institute may at its own discretion extend the last date for the receipt of bids.*** |
| The bids shall be written in English language and any information printed in other language shall be accompanied by an English translation, in which case for the purpose of interpretation of the bid, the English translation shall govern. |
| The Institute reserves the right of accepting any bid other than the lowest or even rejecting all the bids without assigning any reasons therefore. The decision of the Institute Purchase Committee is final in all matters of tender and purchase. |

The bidder should give the following declaration while submitting the Tender.**ACCEPTANCE**We accept the above terms and conditions and shall comply with them strictly.**NAME OF THE VENDOR:** **ADDRESS : SIGNATURE OF THE BIDDER** **SEAL OF THE FIRM** |

**“DETAILS OF THE FIRM OFFERING THIS QUOTE” Section-2**

**(Write or print or type in block letters and please answer all the questions)**

# Name of the firm? 2. Date of incorporation?

# 3. Nature of the company-Government/Public/Private Company/Partnership/Proprietorship:

# 4. Specify the number of years in this line of activity by the Company :.

# 5. Quantity of sales in the last three years for the “Active Components” (same model that you have quoted)?

|  |  |  |
| --- | --- | --- |
| **2013-2014** | **2014-2015** | **2015-2016** |
|  |  |  |

# 6. Turnover in the last three years (Figures should be in Indian Rupees in Lakhs):

|  |  |  |
| --- | --- | --- |
| **2013-2014** | **2014-2015** | **2015-2016** |
|  |  |  |

# 7. Provide the postal address, telephone & fax numbers, and email address of the nearest service center.

# 8. A) Number of service engineers in the above location trained on the product quoted along with their educational qualification, certification and designation (applicable only for instruments) and B) Assured response time for service calls in hours:

B)

A)

# 9. What would be the delivery period in days from the date we place an official purchase order?.

# Enclose the list of customers to whom you have supplied “Active Components [Networking]” during the last 3 years ending 31/03/2016 with full postal address and name of the contact person with phone, FAX numbers, and E-Mail id. Certificate regarding satisfactory performance of the installed “Active Components [Networking]” from the minimum three end users should be furnished.

1. Are you the authorized dealer or distributor or reseller for the products quoted?:
2. Have you supplied / installed “**Active Components [Networking]**” to National Institute of Technology, Tiruchirappalli in the last 3 years? If yes, specify the quantity supplied in the last 3 years and last PO reference.
3. Was there any elapse or delay in supplying the goods ordered or any service related issue during the warranty period for the products ordered by NIT-T with your firm? If yes, provide details.
4. The bidders should enclose the three years of balance sheets and IT Returns
5. On Manufacturer’s Side to whom NIT-T have to contact in case of delayed supply and other issues committed by the authorized dealer / distributor / reseller :

Contact Person Name :

Address :

E-mail ID : Telephone / Cell Phone :

**Section-2**

|  |  |
| --- | --- |
|  | ***DECLARATION*** |
|  | I/we have not tampered/modified the tender forms in any manner. In case, if the same is found to be tampered/modified, I/we understand that my/our tender will be summarily rejected and full Earnest Money Deposit (EMD) will be forfeited and I/we am/are liable to be banned from doing business with NIT, Trichy and /or prosecuted. |
|  | **Signature of the Bidder : …………………………………………………………………** |
|  | **Name and Designation : …………………………………………………………………** |
|  | **Business Address : …………………………………………………………………** **…………………………………………………………………** **…………………………………………………………………** |
|  | **Place :****Date : Seal of the Bidder’s Firm** |

**SECTION : 3 SCOPE OF WORK, SCHEDULE OF REQUIREMENTS [TECHNICAL SPECIFICATIONS] AND ALLIED DETAILS**

Name of the Component to be procured **:**

Scope of Work : Supply & Installation

 of Active Components

Specifications : Please See Section-3

 **Annexure-A**

|  |  |  |
| --- | --- | --- |
| Any other details/requirement | : | Please See Section-3 Annexure-A |
| Warranty period required | : | Five Years Comprehensive on-site Warranty  |
| Delivery schedule & Completion of installation expected after release of purchase order (in weeks) | : | Within Six weeks from the date of receipt of Purchase order by post or purchase order scanned copy through mail whichever is earlier. |
| EMD (in Rupees) | : | Rs.3,00,000/- |
| Performance Security to be given by Successful bidder after release of purchase order (in Rupees) | : | NIL |

**All switches and modules are single mode only**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-1 : 24 Port, with 4x 1/10G Backbone, Managed Layer 3 Gigabit Switch-Qty:6**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  |  Make |  |
|  |  Model  |  |
|  |  Switch Height ( RU) |  |
|  | **Performance** |  |
|  | Switching backplane bandwidth ( Min.208Gbps) inclusive of 2\* high availability cluster links each scalable to minimum 40 GBPS full duplex. |  |
|  | Layer 2 system Throughput (Min.154.8Mpps) |  |
|  | Layer 3 system Throughput (Min.154.8Mpps) |  |
|  | Wire speed Non-blocking per port |  |
|  | MAC Address Table size (32 K Mac address is minimum), Switch should support 4000 active configurable VLANs |  |
|  | Hot swappable SFP port |  |
|  | Support for IP telephony, wireless access point, SDN with Open Stack,Openflow 1.0 or higher |  |
|  | Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ CPU, 1GB RAM, 1 GB Flash or above. |  |
|  | Switch should have MAC, Protocol Based VLANs and QinQ |  |
|  | Switch should have MVRP/GVRP/VTP |  |
|  | **Interface** |  |
|  | 24 ports Auto sensing 10/100/1000 Base-T(RJ-45) |  |
|  | 4 - Port 1000/10G Base – X SFP/+(unpopulated ports)for fiber optics ( LX/LR) Combo Port |  |
|  | 2 high speed stacking interface of 40 GBPS in each |  |
|  | **Network Management** |  |
|  | Telnet, Console, HTTP,SNMP, sflow/Netflow, RMON ( 4groups) support, Port Mirroring, Remote Port mirroring |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-1 : 24 Port, with 4x 1/10G Backbone, Managed Layer 3 Gigabit Switch-Qty:6**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | **Standards** |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad, 802.1ag |  |
|  | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Committed information rate (CIR) function provides bandwidth in increments as low as 8 Kbps.Connectivity Fault Management Layer 2 Ping and Trace route IGMP v1,v2, v3, IGMP snooping and filteringMLDv1,v2 and MLD snoopingPrivate VLANs & Private Vlan Edge Port isolationIP Lite Routing : PBR and Dynamic Routing Protocol for bothIPv4 and IPv6. |  |
|  | Power Supply - 100-240 VAC, 50-60Hz (Should support redundant power supply and replaceable FAN )Operating temperature 0 to 45℃ |  |
| 1. 1
 |  5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity:6 Numbers** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-2: 48 Port, 4x10G Backbone, Managed Layer 3 Gigabit Switch Qty: 10**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Make & Model |  |
|  | Switch Height (1RU) |  |
|  | **Performance** |  |
|  | Switching backplane bandwidth (Min. 256Gbps) Inclusive of 2\* high availability cluster links each scalable to minimum 40 GBPS full duplex. |  |
|  | Layer 2 system Throughput (Min.193.5 Mpps) |  |
|  | Layer 3 system Throughput (Min.193.5 Mpps) |  |
|  | Wire speed Non-blocking per port |  |
|  | MAC Address Table size (32 K Mac address is minimum), Switch should support 4000 active configurable VLANs |  |
|  | Jumbo frames support |  |
|  | Hot swappable SFP port |  |
|  | Support for IP telephony, wireless access point, SDN with Open Stack,Openflow 1.0 or higher |  |
|  | Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ cpu, 1GB RAM, 1 GB Flash or above. |  |
|  | Switch should have MAC, Protocol Based VLANs and QinQ |  |
|  | Switch should have MVRP /GVRP / VTP |  |
|  | **Interface** |  |
|  | 48 ports Auto sensing 10/100/1000 Base-T(RJ-45) |  |
|  | 4 - Port 1000/10G Base – X SFP/+(unpopulated ports) for fiber optics ( LX/LR) Combo Port |  |
|  | 2 high speed stacking interface of 40 GBPS in each |  |
|  | **Network Management Port** |  |
|  | Telnet, Console, HTTP,SNMP, sflow/Netflow, RMON ( 4groups) support, Port Mirroring, Remote Port mirroring |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-2: 48 Port, 4x10G Backbone, Managed Layer 3 Gigabit Switch Qty: 10**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | **Standards** |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab,802.3ac,802.3ad,802.3ae, 802.1ag |  |
|  | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Committed information rate (CIR) function provides bandwidth in increments as low as 8 Kbps. Connectivity Fault Management Layer 2 Ping and Trace route IGMP v1,v2, v3, IGMP snooping and filteringMLDv1,v2 and MLD snoopingPrivate VLANs & Private Vlan Edge Port isolationIP Lite Routing : PBR and Dynamic Routing Protocol for bothIPv4 and IPv6 |  |
|  | Power Supply - 100-240 VAC, 50-60Hz (Should support redundant power supply and replaceable FAN)Operating temperature 0 to 45℃ |  |
| 1. 1
 | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity : 10 Numbers** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-3: 48 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch - Qty: 30**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  |  Make |  |
|  |  Model  |  |
|  |  Switch Height ( RU)  |  |
|  | **Performance** |  |
|  | Switching backplane bandwidth ( Min. 176 Gbps) |  |
|  | Layer 2 system Throughput ( Min. 130.9Mpps) |  |
|  | Wire speed Non-blocking per port |  |
|  | MAC Address Table size (16K Mac address is minimum), Switch should support 4000 active configurable VLANs |  |
|  | Hot swappable SFP port, 1GHZ CPU, 1GB RAM, 1 GB Flash or above. |  |
|  | Support for IP telephony, SDN with Open Stack, Openflow 1.0 or higher |  |
|  | **Interface** |  |
|  | 48 Ports Auto sensing 10/100/1000 Base-T(RJ-45) |  |
| 1.
 | 4 x 1GBASE-X SFP (unpopulated ports) upgradeable to 10Gb Ethernet without changing hardware  |  |
|  | **Network Management** |  |
|  | Telnet, Console, HTTP,SNMP, sflow/Netflow,RMON( 4groups) support |  |

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**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-3: 48 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch - Qty: 30**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | **Standards** |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad |  |
|  | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Connectivity Fault Management Layer 2 Ping and Trace route Multicast : IGMP v1,v2 & MLD v1,v2 Snooping : IGMP & MLD snoopingPrivate Vlan Edge Port isolationStrom Control: Broadcast, multicast, Unicast & IPv6 RA Guard filter |  |
|  | Power Supply - 100-240 VAC,50-60HzOperating temperature 0 to 45℃ |  |
| 1. 1
 | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity : 30 Number** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF: DATE:**

**Type-4 : 24 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch - Qty: 30**

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  |  Make& Model |  |
|  |  Switch Height ( RU) and ETSI compliant Rack Depth (inches) |  |
|  | **Performance** |  |
|  | Switching backplane bandwidth (Min.128Gbps) |  |
|  | Layer 2 system Throughput (Min.95.2Mpps) |  |
|  | Switch should support PoE+ for all the port with 370 W Power Budget |  |
|  | Wire speed Non-blocking per port |  |
|  | MAC Address Table size (16 K Mac address is minimum), Switch should support 4000 active configurable VLANs |  |
|  | Hot swappable SFP port |  |
|  | Support for IP telephony, wireless access point, SDN with Open Stack / Openflow 1.0 and higher |  |
| 1. 1
 | Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ CPU, 1GB RAM, 1 GB Flash or above. |  |
|  | Switch should have MAC, Protocol Based VLANs and QinQ |  |
|  | Switch should have MVRP /GVRP / VTP |  |
|  | **Interface** |  |
|  | 24 ports Auto sensing 10/100/1000 Base-T(RJ-45) |  |
|  | 4 x 1GBASE-X SFP (unpopulated ports) upgradeable to 10Gb Ethernet with out changing hardware  |  |
|  | **Network Management** |  |
|  | Telnet, Console, HTTP,SNMP, sflow/Netflow,RMON( 4groups) support |  |
|  | **Standards** |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad,802.3af |  |

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**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-4 : 24 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch - Qty: 30**

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Connectivity Fault Management Layer 2 Ping and Trace route Multicast : IGMP v1,v2 & MLD v1,v2 Snooping : IGMP & MLD snoopingPrivate Vlan Edge Port isolationStrom Control: Broadcast, multicast, Unicast & IPv6 RA Guard filter |  |
|  | Power Supply - 100-240 VAC,50-60HzOperating temperature 0 to 45℃ |  |
|  | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity : 30 Numbers** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-5 :8 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch - Qty: 26**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
| 1. |  Make |  |
| 2. |  Model  |  |
| 3. |  Switch Height ( RU) |  |
|  | **Performance** |  |
| 4. | Switching backplane bandwidth (Min.24Gbps) |  |
| 5. | Layer 2 system Throughput (Min.17.9Mpps) |  |
| 6. | Support for PoE+ on all copper port with 124 W power Budget |  |
| 7. | Wire speed Non-blocking per port |  |
| 8. | MAC Address Table size (16 K Mac address is minimum) |  |
| 9. | Hot swappable SFP port, 1GB RAM, 1 GB Flash or above. |  |
| 10. | Support for IP telephony, SDN with Open Stack,Openflow 1.0 or higher |  |
|  | **Interface** |  |
| 14. | 8 Ports Auto sensing 10/100/1000 Base-T(RJ-45) |  |
| 15. | 4x Port 1000 Base(unpopulated ports). |  |
|  | **Network Management** |  |
| 16. | Telnet, Console, HTTP,SNMP, sflow/Netflow,RMON( 4groups) support |  |

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**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-5 : 8 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch - Qty: 26**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | **Standards** |  |
| 17. | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad |  |
| 18. | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Connectivity Fault Management Layer 2 Ping and Trace route Multicast : IGMP v1,v2 & MLD v1,v2 Snooping : IGMP & MLD snoopingPrivate Vlan Edge Port isolationStrom Control: Broadcast, multicast, Unicast & IPv6 RA Guard filter |  |
| 19. | Power Supply - 100-240 VAC,50-60Hz (built in Power Supply)Operating temperature 0 to 45℃ |  |
| 20. | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity : 26 Numbers** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-6 :24 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch - Qty:20**

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  |  Make |  |
|  |  Model  |  |
|  |  Switch Height ( RU) |  |
|  | **Performance** |  |
|  | Switching backplane bandwidth ( Min.128Gbps) |  |
|  | Layer 2 system Throughput ( Min.95.2Mpps) |  |
|  | Wire speed Non-blocking per port |  |
|  | MAC Address Table size (16 K Mac address is minimum), Switch should support 4000 active configurable VLANs |  |
|  | Hot swappable SFP port |  |
|  | Support for IP telephony, wireless access point, SDN with Open Stack,Openflow 1.0 or higher |  |
|  | Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ CPU, 1GB RAM, 1 GB Flash or above. |  |
|  | Switch should have MAC, Protocol Based VLANs and QinQ |  |
|  | Switch should have MVRP /GVRP / VTP |  |
|  | **Interface** |  |
|  | 24 ports Auto sensing 10/100/1000 Base-T(RJ-45) |  |
|  | 4 x 1GBASE-X SFP (unpopulated ports) upgradeable to 10Gb Ethernet without changing hardware  |  |
|  | **Network Management** |  |
|  | Telnet, Console, HTTP,SNMP, sflow/Netflow,RMON( 4groups) support |  |

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**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-6 :24 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch - Qty: 20**

|  |  |  |
| --- | --- | --- |
| **Sl.No.** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | **Standards** |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad,802.3af |  |
|  | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Connectivity Fault Management Layer 2 Ping and Trace route Multicast : IGMP v1,v2 & MLD v1,v2 Snooping : IGMP & MLD snoopingPrivate Vlan Edge Port isolationStrom Control: Broadcast, multicast, Unicast & IPv6 RA Guard filter |  |
|  | Power Supply - 100-240 VAC,50-60HzOperating temperature 0 to 45℃ |  |
|  | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity : 20 Numbers** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-7: 16 ports1/10GSFP+ (4 numbers 10G SFP+ populated), Managed Layer 3 Switch - Qty: 1**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Make & Model |  |
|  | Switch Height ( RU) |  |
|  | **Performance** |  |
|  | Switching backplane bandwidth ( Min.320 Gbps) |  |
|  | Layer 2 system Throughput ( Min.238Mpps) |  |
|  | Layer 3 system Throughput ( Min.238Mpps) |  |
|  | Wire speed Non-blocking per port |  |
|  | MAC Address Table size (16 K Mac address is minimum), Switch should support 4000 active configurable VLANs |  |
|  | Hot swappable SFP port |  |
|  | Support for IP telephony, wireless access point, SDN with Open Stack, Openflow 1.0 or higher |  |
|  | Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ cpu, 1GB RAM, 1 GB Flash or above. |  |
|  | Switch should have MAC, Protocol Based VLANs and QinQ |  |
|  | Switch should have MVRP /GVRP / VTP |  |
|  | **Interface** |  |
|  | 16 ports 1/10G SFP+ (4 numbers 10G SFP+ populated) |  |
|  | 1x Out Of Band Port , 1 Serial Console, 1x USB  |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-7: 16 ports1/10G SFP+ (4 numbers 10G SFP+ populated), Managed Layer 3 Switch - Qty: 1**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | **Network Management** |  |
|  | Telnet, Console, HTTP,SNMP, sflow/Netflow, RMON ( 4groups) support, Port Mirroring, Remote Port mirroring |  |
|  | **Standards** |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad, 802.1ag |  |
|  | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Committed information rate (CIR) function provides bandwidth in increments as low as 8 Kbps.Connectivity Fault Management Layer 2 Ping and Trace route IGMP v1,v2, v3, IGMP snooping and filteringMLDv1,v2 and MLD snoopingPrivate VLANs & Private Vlan Edge Port isolationIP Lite Routing : PBR and Dynamic Routing Protocol for bothIPv4 and IPv6.Data Center : 802.1qbb, 802.1qaz, PFC, ETS |  |
|  | Power Supply - 100-240 VAC,50-60Hz Operating temperature 0 to 45℃ |  |
| 1. 1
 |  5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity : 1 Number** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-8: 24 Port 1G Base X SFP(fully populated), with 4x 1/10G Backbone, Managed Layer 3 Gigabit Switch-Qty: 1**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Make & Model |  |
|  | Switch Height ( RU) |  |
|  | **Performance** |  |
|  | Switching backplane bandwidth ( Min.128 Gbps) |  |
|  | Layer 2 system Throughput ( Min.95.2Mpps) |  |
|  | Layer 3 system Throughput ( Min.95.2 Mpps) |  |
|  | Wire speed Non-blocking per port |  |
|  | MAC Address Table size (16 K Mac address is minimum), Switch should support 4000 active configurable VLANs |  |
|  | Hot swappable SFP port |  |
|  | Support for IP telephony, wireless access point, SDN with Open Stack,Openflow 1.0 or higher |  |
|  | Switch should have Dual-stack IPv4 and IPv6. Must have IPv6 hardware support, 1GHZ cpu, 1GB RAM, 1 GB Flash or above. |  |
|  | Switch should have MAC, Protocol Based VLANs and QinQ |  |
|  | Switch should have MVRP /GVRP / VTP |  |
|  | **Interface** |  |
|  | 24 ports 1000 Base X for fiber optics (SX/LX) (fully populated) |  |
|  | 4 - Port 1000/10G Base – X SFP/+ for fiber optics (SR/LR)(unpopulated) |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-8: 24 Port 1G Base X SFP(fully populated), with 4x1/10G Backbone, Managed Layer 3 Gigabit Switch- Qty: 1**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | **Network Management** |  |
|  | Telnet, Console, HTTP,SNMP, sflow/Netflow, RMON ( 4groups) support, Port Mirroring, Remote Port mirroring |  |
|  | **Standards** |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad, 802.1ag |  |
|  | Should have QoS with 8 queues, Access control Lists for IPv4 and IPv6, Switch Security, 802.1p Mapping to Priority Queue, MAC Address Mapping to Priority Queue, ACL Mapping to Priority Queue, ACL Mapping to ToS/DSCP, ACL Mapping and Marking of ToS/DSCP, Switch QoS should also be VoIP aware (ability to detect IP Phones and prioritize VoIP traffic). Committed information rate (CIR) function provides bandwidth in increments as low as 8 Kbps.Connectivity Fault Management Layer 2 Ping and Trace route IGMP v1,v2, v3, IGMP snooping and filteringMLDv1,v2 and MLD snoopingPrivate VLANs & Private Vlan Edge Port isolationIP Lite Routing : PBR and Dynamic Routing Protocol for bothIPv4 and IPv6. |  |
|  | Power Supply - 100-240 VAC,50-60Hz (Should support redundant power supply)Operating temperature 0 to 45℃ |  |
|  |  5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |
| **Required Quantity : 1 Number** |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-9: 1G LX SFP Transceivers - Qty: 60**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Make  |  |
|  | Model |  |
|  | 1G LX SFP |  |
|  | Should be MSA ( Multi-source Agreement) complied Should be from the same Switching OEMDistance up to 5 kmRoHS complied IEC 60825, FDA/CFH Title 21Wavelength 1310 nm, LC ConnectorOperating temperature 40℃to 60℃ |  |
|  | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-10: 10G LR SFP+ Transceivers - Qty: 16**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Make  |  |
|  | Model |  |
|  | 10G LR SFP+ |  |
|  | **Performance** |  |
|  | Should be MSA ( Multi-source Agreement) complied Should be from the same Switching OEMDistance up to 5 kmRoHS complied IEC 60825, FDA/CFH Title 21Wavelength 1310 nm, LC ConnectorOperating temperature 40℃to 60℃ |  |
|  | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services |  |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-11 :10 (2 for CPU and 8 for usable slot) BAY/SLOT CORE SWITCH WITH BUYBACK OPTION - Qty: 1**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  |  Make |  |
|  |  Model  |  |
|  | CPU Module: 2 NosFailure of one CPU module or Fabric Module should not cause reduction of switching throughput from the requested figure below.  |  |
|  | Effective per chassis switching capacity should be 15.3 Tbps or higher day 1.  |  |
|  | Should have Dual Core 2GHz i7 or higher CPU, 2GB RAM, 1 GB Flash, Chassis should have minimum 128 K MAC and scalable to 512 K if necessaryChassis should have minimum 16 K ip routes and scalable to 1M routes if necessaryChassis should support up to 160 K IP arp entriesChassis should be loaded with hot-swappable FAN tray and N+N PSU redundancy |  |
|  | Loaded with EAL 3 or NDPP/NDcPP common criteria certified OS |  |
|  | OS should be modular in nature with individual process control and restart capability for crash protection. |  |
|  | Switch should ready support 1G/10G/40G and 100G line card modules.Following Line Cards need to be quoted |  |
|  | **24 x 1/10G Fiber port Line Card: 1 No (Populated with 16X10G SM optics of same make)** |  |
|  | **12X40G fiber Line Card:1 No (Populated with 2X40G SM optics of same make operating in Non Blocking architecture)** |  |
|  | **48x 1G Fiber Line Card: 2 Nos, (Populated with 60X1G SM optics of same make)** |  |
|  | **48x 10/100/1000 Base T Line Card: 3 Nos** |  |
|  | Switch should support minimum 32 K ACL per switch and minimum 4 K per Line card |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-11 :10 (2 for CPU and 8 for usable slot) BAY/SLOT CORE SWITCH WITH BUYBACK OPTION- Qty: 1**

|  |  |  |
| --- | --- | --- |
| Sl # | NITT’s specifications | Firm’s Matching Specifications  |
|  | Per slot Switching capacity should be minimum 960 Gbps or higher in each direction. |  |
|  | Chassis should be quoted with hot swappable FAN and PSU subsystem which should tolerate at least 2 or more failures per chassis.  |  |
|  | IP Routing |  |
|  | Quoted hardware should support Full Layer 3 features with PBR, Many to Many Mirroring, OSPF, ISIS, BGP, STP, PVSTP, MSTP, LACP, MPLS, VPLS without any additional Hardware.  |  |
|  | Standards |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad, 802.1ag, 802.1qbb in hardware, PFC, IEEE 802.1 ETS etc for lossless fabric |  |
|   | Network Management |  |
|  | Telnet, Console, HTTP, SNMP, sflow/Netflow, RMON (4groups) support, OpenFlow 1.3 or higher and SDN with Open stack, XML apiShould support automated threshold based threat detection and network behavior based anomaly detection rules. If additional component / module is required to achieve this the same should be quoted. Should support Virtual switch containers for multitenancy which allows the switch to be segmented into individual virtual switches. Each virtual switch can have their own routing table and protocol crash in one virtual switch does not affect the other virtual switches. Equivalent technologies like VDC, MDC, LSYS, VR or equivalent can be offered. Has built in packet generator and performance testing tool to test performances of 10G/40G/100G ports. |  |
|  | Should support Auto Smart ports or equivalent that automatically configures and un-configures switch ports based on the connected device type.  |  |
|  | Should support Embedded event manager or equivalent scripting system that can detect network events and automatically take action, such as executing CLI commands or sending an Syslog event / Snmp trap. |  |
|  | Should support inbuilt NAC or user/device based Dynamic Security Policies which can be integrated with AD / LDAP via Kerberos or any other agentless mechanism. In case such is not supported by default additional NAC can be quoted.  |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type-11 :10 (2 for CPU and 8 for usable slot) BAY/SLOT CORE SWITCH WITH BUYBACK OPTION- Qty: 1**

|  |  |  |
| --- | --- | --- |
| Sl # | NITT’s specifications | Firm’s Matching Specifications  |
|  | Should support Smart Call Home or equivalent that communicates switch health / logs to Technical Assistance Center (TAC) to enable proactive service interventions. |  |
|  | Power Supply - 100-240 VAC,50-60Hz, 3 Nos of Switch Mode Power supply (should support n+1 redundant power supply and replaceable FAN)Operating temperature 0 to 40℃ |  |
| 1. 1
 | 5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services.OEM should have India toll free number and L1/L2 TAC based in India.  |  |
|  | Details of NMS ie. make & version, features and etc., |  |

ITEM NO: CSG 08

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type 12 :10 (2 for CPU and 8 for usable slot) BAY/SLOT CORE SWITCH WITH BUYBACK OPTION- Qty: 1-3**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  |  Make |  |
|  |  Model  |  |
|  | CPU Module: 2 Nos |  |
|  | Effective per chassis switching capacity should not be less than 3.8 Tbps with 2x CPU module |  |
|  | Should support Dual Core CPU, 1GB RAM, Compact Flash / USB slot. Chassis should have minimum 128 K MAC and scalable to 512 K if necessaryChassis should have minimum 12 K ip routes and scalable to 512 K if necessaryChassis should have minimum 100 K IP arp and scalable to 200 K. Chassis should be loaded with hot-swappable FAN tray and N+N PSU redundancy |  |
|  | Loaded with EAL 3 or NDPP/NDcPP common criteria certified OS |  |
|  | OS should be modular in nature with individual process control and restart capability for crash protection. |  |
|  | Switch should ready support 1G/10G/40G line card modules. Following Line Cards need to be quoted |  |
|  | **24 x 1/10G Fiber port Line Card: 1 No (Populated with 16x10GSM optics of same make)** |  |
|  | **6X40G Fiber Line card: 1 No (Populated with 2X40G SM optics of same make)** |  |
|  | **48x 1G Fiber Line Card: 2 No’s (Populated with 60X1G SM optics of same make)** |  |
|  | **48x 10/100/1000 Base T Line Card: 3 Nos** |  |
|  | Switch should support minimum 32 K ACL per switch and minimum 4 K per Line card |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type 12 :10 (2 for CPU and 8 for usable slot) BAY/SLOT CORE SWITCH WITH BUYBACK OPTION- Qty: 1-3**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Chassis should support per slot backplane bandwidth scalable upto 160 Gbps or higher |  |
|  | Chassis should be quoted with hot swappable FAN and PSU subsystem which should tolerate at least 2 or more failures per chassis.  |  |
|  | IP Routing |  |
|  | Quoted hardware should support Full Layer 3 features with PBR, Many to Many Mirroring, OSPF, ISIS, BGP, STP, PVSTP, MSTP, LACP, MPLS, VPLS without any additional Hardware.  |  |
|  | Standards |  |
|  | IEEE 802.1D, 802.1Q , 802.1p, 802.1w, 802.2, 802.3, 802.3I,802.3u, 802.3x, 802.3z, 802.3ab, 802.3ac, 802.3ad, 802.1ag, 802.1qbb in hardware, 802.1Qaz, 802.1ak, 802.1AS, 802.qat |  |
|   | Network Management |  |
|  | Telnet, Console, HTTP, SNMP, sflow/Netflow, RMON (4groups) support, OpenFlow 1.3 or higher and SDN with Open stack, XML apiShould support automated threshold based threat detection and network behavior based anomaly detection rules. If additional component / module is required to achieve this the same should be quoted. Should support Virtual switch containers for multitenancy which allows the switch to be segmented into individual virtual switches. Each virtual switch can have their own routing table and protocol crash in one virtual switch does not affect the other virtual switches. Equivalent technologies like VDC, MDC, LSYS, VR or equivalent can be offered.  |  |
|  | Should support Auto Smart ports or equivalent that automatically configures and un-configures switch ports based on the connected device type.  |  |
|  | Should support Embedded event manager or equivalent scripting system that can detect network events and automatically take action, such as executing CLI commands or sending an Syslog event / Snmp trap. |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION :3 Annexure – A [ Technical Specifications and other details and requirement ]**

[ To be used by the bidder for submission of the bid ]

**FIRM’S NAME & ADDRESS: FIRM’S REF:**

 **DATE:**

**Type 12 :10 (2 for CPU and 8 for usable slot) BAY/SLOT CORE SWITCH WITH BUYBACK OPTION- Qty: 1-3**

|  |  |  |
| --- | --- | --- |
| **Sl #** | **NITT’s specifications** | **Firm’s Matching Specifications**  |
|  | Should support inbuilt NAC or user/device based Dynamic Security Policies which can be integrated with AD / LDAP via Kerberos or any other agentless mechanism. In case such is not supported by default additional NAC can be quoted. |  |
|  | Should support Smart Call Home or equivalent that communicates switch health / logs to Technical Assistance Center (TAC) to enable proactive service interventions. |  |
|  | Power Supply - 100-240 VAC,50-60Hz, 3 Nos of Switch Mode Power supply (should support n+1 redundant power supply and replaceable FAN)Operating temperature 0 to 40℃ |  |
| 1. 1
 |  5 Years Comprehensive Warranty: OEM should offer Advance Hardware replacement Parts and materials, Work to completion, Software support, Escalation management, Coverage window, Remote support service coverage window (24x7), Response to critical hardware and software incidents (24x7 over telephonic/email), License to use and copy software product updates, Software product and documentation updates, Access to electronic support information and services.OEM should have India toll free number and L1/L2 TAC based in India.  |  |
|  | Details of NMS ie. make & version, features and etc., |  |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**SECTION : 4 PRICE SCHEDULE**

[ To be used by the bidder for submission of the bid ]

|  |  |  |  |
| --- | --- | --- | --- |
| 1. | Component Name | **:** |  |
| 2. | Specifications (confirming to Section 3 of Tender document-enclose additional sheets if necessary) | **:** |  |
| 3. | Currency and Unit Price | **:** |  |
| 4. | Quantity | **:** |  |
| 5. | Item cost  | **:** |  |
| 6. | Taxes and other charges 1. Specify the type of taxes and duties in percentages and also in figures
2. Specify other charges in figures
 | **:****:** |  |
| 7. | Warranty period (confirming to the Section 3 of Tender document. This should be mentioned in Technical bid also in order to get qualified for Financial bid) | **:** |  |
| 8. | Delivery Schedule (confirming to the Section 3 of Tender document) | **:** |  |
| 9. | Name and address of the firm for placing purchase order | **:** |  |
| 10. | Name and address of Indian authorized agent (in case of imports only) | **:** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|

|  |
| --- |
| **Signature of the Bidder : …………………………………………………………………** |
| **Name and Designation : …………………………………………………………………** |
| **Business Address : …………………………………………………………………** **…………………………………………………………………** **…………………………………………………………………** |
| **Place :****Date : Seal of the Bidder’s Firm** |

 |

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**Section – 4 Annexure–B**

**TYPE 1 TO 10**

**PRICE BID FORMAT FOR INDIAN BIDDERS THOSE WHO ARE QUOTING IN INR**

**Tender No. &Date : CSG/TENDER/PLAN/ACTIVE/NOV/2016** dated**15/11/2016**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SL.****No.** | **Description of Item** | **Unit** **(Set/No.)** | **Qty.** | **Rate / Qty.** **In Rs.** **(excluding of** **all taxes)** | **ED in %** | **VAT/CST****in CST%** | **Service****Tax in****%** | **Total value in** **Rs.****(inclusive of all taxes)** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** | **(7)** | **(8)** | **(9)** |
| **1** | **Type-1 :** 24 Port, with 4x 1/10G Backbone, Managed Layer 3 Gigabit Switch |  |  |  |  |  |  |  |
| **2** | **Type-2:** 48 Port, 4x10G Backbone, Managed Layer 3 Gigabit Switch |  |  |  |  |  |  |  |
| **3** | **Type-3:** 48 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch |  |  |  |  |  |  |  |
| **4** | **Type-4 :** 24 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch |  |  |  |  |  |  |  |
| **5** | **Type-5 :** 8 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch |  |  |  |  |  |  |  |
| **6** | **Type-6 :** 24 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch |  |  |  |  |  |  |  |
| **7** | **Type-7**16 ports 1/10G SFP+, Managed Layer 3 Switch |  |  |  |  |  |  |  |
| **8** | **Type-8**24 Port 1G Base X SFP, with 4x 1/10G Backbone, Managed Layer 3 Gigabit Switch |  |  |  |  |  |  |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**Section – 4 Annexure–B**

**TYPE 1 TO 10**

**PRICE BID FORMAT FOR INDIAN BIDDERS THOSE WHO ARE QUOTING IN INR**

**Tender No. &Date :CSG/TENDER/PLAN/ACTIVE/NOV/2016** dated **15/11/2016**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SL.****No.** | **Description of Item** | **Unit** **(Set/No.)** | **Qty.** | **Rate / Qty.** **In Rs.** **(excluding of** **all taxes)** | **ED in %** | **VAT/CST****in CST%** | **Service****Tax in****%** | **Total value in** **Rs.****(inclusive of all taxes)** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** | **(7)** | **(8)** | **(9)** |
| **9** | **Type-9**1G LX SFP Transceivers |  |  |  |  |  |  |  |
| **10** | **Type 10**10G LR SFP+ Transceivers |  |  |  |  |  |  |  |
|  | **Delivery Period**  |  |  |  |  |  |  |  |
| **11** | Packing & Forwarding charges (extra, if any) in percentage (or) Lumpsum |  |
| **12** | FOR Despatching stations value in Rs. |  |
| **13** | Freight & Transit Insurance charges, extra, if any (Lumpsum of %) |  |
| **14** | Total all inclusive price delivered at NIT-T |  |
| **15** | Installation & Commissioning (extra, if any) [in Indian Rupees] |  |
| **16** | On-Site Service support for one Engineer during the Warranty period [in Indian Rupees] |  |

* The vendor will be selected those who are meeting the NITT’s specification and the required quantity for this project. The unit price options are given above for arriving One year NIT-T rate contract.

**Signature & Seal of Vendor**

The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, incase the item is “not applicable”. The price bid will be rejected if any column is left empty.

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**Section – 4 [Annexure–C]**

**TYPE 1 TO 10**

**PRICE BID FORMAT FOR INDIAN AGENTS THOSE WHO ARE QUOTING**

**ON BEHALF OF THEIR PRINCIPAL & IN FOREIGN CURRENCY**

**Tender No. &Date :CSG/TENDER/PLAN/ACTIVE/NOV/2016**  dated **15/11/2016**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No.** | **Description of Item** | **Unit** **(Set/No.)** | **Qty.** | **Rate / Qty.** **In quoted Currency** | **Total value in** **In quoted****Currency** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
| **1** | **Type-1 :** 24 Port, with 4x 1/10G Backbone, Managed Layer 3 Gigabit Switch |  |  |  |  |
| **2** | **Type-2:** 48 Port, 4x10G Backbone, Managed Layer 3 Gigabit Switch |  |  |  |  |
| **3** | **Type-3:** 48 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch |  |  |  |  |
| **4** | **Type-4 :** 24 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch |  |  |  |  |
| **5** | **Type-5 :** 8 Port, 4x1G Backbone, Managed Layer 2 Gigabit PoE Plus Switch |  |  |  |  |
| **6** | **Type-6 :** 24 Port, 4x1G Backbone, Managed Layer 2 Gigabit Switch |  |  |  |  |
| **7** | **Type-7**16 ports 1/10G SFP+, Managed Layer 3 Switch |  |  |  |  |
| **8** | **Type-8**24 Port 1G Base X SFP, with 4x 1/10G Backbone, Managed Layer 3 Gigabit Switch |  |  |  |  |

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**Section – 4 [Annexure–C]**

**TYPE 1 TO 10**

**PRICE BID FORMAT FOR INDIAN AGENTS THOSE WHO ARE QUOTING**

**ON BEHALF OF THEIR PRINCIPAL & IN FOREIGN CURRENCY**

**Tender No. &Date :CSG/TENDER/PLAN/ACTIVE/NOV/2016**  dated **15/11/2016**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No.** | **Description of Item** | **Unit** **(Set/No.)** | **Qty.** | **Rate / Qty.** **In quoted Currency** | **Total value in** **In quoted****Currency** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
| **9** | **Type-9**1G LX SFP Transceivers |  |  |  |  |
| **10** | **Type 10**10G LR SFP+ Transceivers |  |  |  |  |
| **11** | Packing & Forwarding charges (extra, if any) in percentage (or) Lumpsum |  |
| **12** | FOB / Ex-Works [Despatching stations] value in Foreign Currency |  |
| **13** | Freight & Insurance charges, (including Foreign Bank charges)up to NIT-T, extra, if any (Lumpsum of %) |  |
| **14** | Total all inclusive Price in quoted currency [delivery up to NIT-T without Duties & Customs Clearance] |  |
| **15** | Other Charges [Basic Customs Duty, other Duties, Customs Clearance charges [NIT-T will provide only Essentiality Certificate and DSIR certificate for claiming Concessional duty] (in Indian Rupees) |  |
| **16** | Installation & Commissioning (extra, if any) [in Indian Rupees] |  |
| **17** | On-Site Service support for one Engineer during the Warranty period [in Indian Rupees] |  |

* The vendor will be selected those who are meeting the NITT’s specification and the required quantity for this project. The unit price options are given above for arriving One year NIT-T rate contract.

**Signature & Seal of Vendor**

The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, incase the item is “not applicable”. The price bid will be rejected if any column is left empty.

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**Section – 4 Annexure–B**

**TYPE 11 & 12**

**PRICE BID FORMAT FOR INDIAN BIDDERS THOSE WHO ARE QUOTING IN INR**

**Tender No. &Date :CSG/TENDER/PLAN/ACTIVE/NOV/2016** dated**15/11/2016**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **SL.****No.** | **Description of Item** | **Unit** **(Set/No.)** | **Qty.** | **Rate / Qty.** **In Rs.** **(excluding of** **all taxes)** | **ED in %** | **VAT/CST****in CST%** | **Service****Tax in****%** | **Total value****(inclusive of all taxes)** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** | **(7)** | **(8)** | **(9)** |
| **1** | **Type-11:** 10 BAY/SLOT CORE SWITCH |  |  |  |  |  |  |  |
| **2** | **Type-12:**10 BAY/SLOT CORE SWITCH |  |  |  |  |  |  |  |
| **3** | **Buyback value for Core Switch BD 8810 - 1 Number**Refer: Section 2. “TERMS AND CONDITIONS FORM” Line No:52 for BOM |  |
| **4** | **Buyback value for Distribution Switch BD 8806 - 2 Numbers**Refer: Section 2. “TERMS AND CONDITIONS FORM” Line No:53 for BOM |  |
| **5** | Packing & Forwarding charges (extra, if any) in percentage (or) Lumpsum |  |
| **6** | FOR Despatching stations value in Rs. |  |
| **7** | Freight & Transit Insurance charges, extra, if any (Lumpsum of %) |  |
| **8** | Total all inclusive price delivered at NIT-T |  |
| **9** | Installation & Commissioning (extra, if any) [in Indian Rupees] |  |
| **10** | On-Site Service support for one Engineer during the Warranty period [in Indian Rupees] |  |

* **NIT-T will buy either (type 1 to 11) or (type 1 to 10 and 12) with optional buyback option.**
* The vendor will be selected those who are meeting the NITT’s specification and the required quantity for this project. The unit price options are given above for arriving One year NIT-T rate contract.

**Signature & Seal of Vendor**

The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, incase the item is “not applicable”. The price bid will be rejected if any column is left empty.

**… Contd.**

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI – 620 015**

**Section – 4 [Annexure–C]**

**TYPE 11 & 12**

**PRICE BID FORMAT FOR INDIAN AGENTS THOSE WHO ARE QUOTING**

**ON BEHALF OF THEIR PRINCIPAL & IN FOREIGN CURRENCY**

**Tender No. &Date :CSG/TENDER/PLAN/ACTIVE/NOV/2016**  dated **15/11/2016**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **S.No.** | **Description of Item** | **Unit** **(Set/No.)** | **Qty.** | **Rate / Qty.** **In quoted Currency** | **Total value in** **In quoted****Currency** |
| **(1)** | **(2)** | **(3)** | **(4)** | **(5)** | **(6)** |
| **1** | **Type-11:** 10 BAY/SLOT CORE SWITCH |  |  |  |  |
| **2** | **Type-12:**10 BAY/SLOT CORE SWITCH |  |  |  |  |
| **3** | **Buyback value for Core Switch BD 8810- 1 Number**Refer: Section 2. “TERMS AND CONDITIONS FORM” Line No:52 for BOM |  |
| **4** | **Buyback value for Distribution Switch BD 8806 - 2 Numbers**Refer: Section 2. “TERMS AND CONDITIONS FORM” Line No:53 for BOM |  |
| **5** | Packing & Forwarding charges (extra, if any) in percentage (or) Lumpsum |  |
| **6** | FOB / Ex-Works [Despatching stations] value in Foreign Currency |  |
| **7** | Freight & Insurance charges, (including Foreign Bank charges)up to NIT-T, extra, if any (Lumpsum of %) |  |
| **8** | Total all inclusive Price in quoted currency [delivery up to NIT-T without Duties & Customs Clearance] |  |
| **9** | Other Charges [Basic Customs Duty, other Duties, Customs Clearance charges [NIT-T will provide only Essentiality Certificate and DSIR certificate for claiming Concessional duty] (in Indian Rupees) |  |
| **10** | Installation & Commissioning (extra, if any) [in Indian Rupees] |  |
| **11** | On-Site Service support for one Engineer during the Warranty period [in Indian Rupees] |  |

* **NIT-T will buy either (type 1 to 11) or (type 1 to 10 and 12) with optional buyback option.**
* The vendor will be selected those who are meeting the NITT’s specification and the required quantity for this project. The unit price options are given above for arriving One year NIT-T rate contract.

**Signature & Seal of Vendor**

The price bid should be submitted only as per the above format. No row shall be left blank. Please indicate NA, incase the item is “not applicable”. The price bid will be rejected if any column is left empty.

**SECTION : 5 CONTRACT FORM**

[ To be provided by the bidder in the business letter head ]

|  |  |
| --- | --- |
| 1. | {Name of the Supplier’s Firm) hereby abide to deliver the ………………………………by the delivery schedule mentioned in the Section 3 tender document for supply of the items if the purchase order is awarded. |
| 2. | The item will be supplied conforming to the specifications stated in the tender document without any defect and deviations. |
| 3. | Warranty will be given for the period mentioned in the tender document and service will be rendered to the satisfaction of NIT, Trichy during this period. |
| 4 | One Onsite Engineer should be provided right from day one (Monday to Saturday from 9.00 am to 5.30pm) |
| 5. | 5% Stocking of Active Components (for Type1 to Type10) to be maintained at NIT-T |
| 6. | The On-site Engineer salary should be on par with Central Government Wages Act. |

|  |
| --- |
| **Signature of the Bidder : …………………………………………………………………** |
| **Name and Designation : …………………………………………………………………** |
| **Business Address : …………………………………………………………………** **…………………………………………………………………** **…………………………………………………………………** |
| **Place :****Date : Seal of the Bidder’s Firm** |

**SECTION :6 CONTRACT FORM**

Bid Security /EMD Bank Guarantee [Specimen]

**NIT-T’S COPY (To be filled in and submitted by the bidder)**

**Last Date for receipt of tender at NIT-T : 07/12/2016 at 3.00 p.m.**

**Opening Date : 07/12/2016 at 3.30 p.m.**

|  |
| --- |
| **CHECKLIST TO BE FILLED IN BY BIDDER**(Please make sure that these pages are filled and send duly signed) |
| List of documents to be enclosed | Completed & Signed |
| 1. Duly filled & signed Terms and conditions of the Tender & Details of the Firm offering this Quote,  Declaration | YES / NO |
| 2. Duly Filled & signed forms of Schedule ofrequirements[Technical Specifications] and Allied Details | YES / NO |
| 3. Duly Filled in signed Price Schedule & Price Bid Formats | YES / NO |
| 4. Duly Filled in signed Contract Form | YES / NO |
| 5. Other technical specifications & pamphlets | YES / NO |

**SEAL OF THE BIDDER SIGNATURE WITH DATE**

|  |
| --- |
| **FOR NIT-T USE ONLY** |
| Name of the Vendor Address (Location):  |
| 1. Duly filled & signed Terms and conditions of the Tender & Details of the  Firm offering this Quote, Declaration | YES / NO |
| 2. Duly Filled & signed forms of Schedule ofrequirements[Technical Specifications]  and Allied Details | YES / NO |
| 3. Duly Filled in signed Price Schedule & Price Bid Formats | YES / NO |
| 4. Duly Filled in signed Contract Form | YES / NO |
| 5. Other technical specifications &pamphlets | YES / NO[in a separate sealed cover] |
| 6. No. of enclosures  |  |
| 7.Status of tender  | Accepted for evaluation / Rejected |
|  | DY. REGISTRAR (A/cs.) |