

# NATIONAL INSTITUTE OF TECHNOLOGY SILCHAR

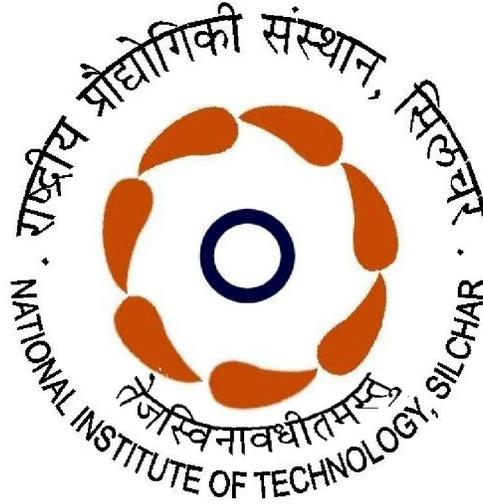
Silchar – 788 010 (ASSAM)

No: NITS/PS-653/CSE/Up gradation of Dept. Computational Facility/19

Date: 14/03/2019

## NOTICE INVITING TENDER

FOR UPGRADATION OF DEPT. COMPUTATIONAL FACILITY UNDER BUY-BACK FOR  
CSE DEPARTMENT AT NIT SILCHAR



LAST DATE & TIME OF SUBMISSION : 12/04/2019 up-to 01.00 PM

DATE & TIME OF OPENING : 12/04/2019 at 03.30 PM



**NATIONAL INSTITUTE OF TECHNOLOGY  
SILCHAR - 788 010**

Tel.No. Director: (03842) 224879

Fax: (03842) 224797

**NOTICE INVITING TENDER**

**Adv. No.: NITS/PS-653/CSE/Up gradation of Dept. Computational Facility/19**

Sealed Tenders are invited from reputed Firms/Agencies/Manufacturer/Authorized Dealer **FOR UPGRADATION OF DEPT. COMPUTATIONAL FACILITY UNDER BUY-BACK FOR CSE DEPARTMENT AT NIT SILCHAR** along with Earnest Money Deposit (EMD) @2% of the total bid value in the form of Demand Draft/Bank Guarantee in favour of "The Director, NIT Silchar", Payable at Silchar. No Interest shall be paid on EMD at the time of return. Bidders registered as NSIC/SSI/MSME are exempted. Necessary Certificate in support must be furnished where applicable.

Detail specification of required item/items are given in **(Annexure-A)**.

Tender document can be obtained from Purchase Section, NIT Silchar or may be downloaded from our website [www.nits.ac.in](http://www.nits.ac.in) or <http://eprocure.gov.in>. **The cost of tender document is Rs.1,000/-** (Non-refundable) to be submitted in the form of DD in favour of The Director, NIT Silchar-788010, Payable at Silchar. The last date and time for submission of Tender document will be 12/04/2019 up-to **01.00PM** and tender(technical bid) will be opened on the same date at **03.30 PM** in office of HOD, CSE Dept., NIT SILCHAR. Price bid of technically qualified bidders only shall be opened in a later date with prior intimation.

The offers without Cost of Tender & Earnest Money Deposit (EMD) shall out rightly be rejected.

Director, NIT Silchar reserves the right to extend the date or cancel the tender, accept or reject any/all tenders or not to purchase all or any of the items.

**Tenders are to be sent/submitted in sealed covers addressed to:-**

The Faculty-In-Charge, Purchase  
National Institute of Technology, Silchar-788 010, Cachar, Assam  
Email : [purchasecell.nits@gmail.com](mailto:purchasecell.nits@gmail.com)

Registrar, NIT Silchar

## NOTICE INVITING TENDER

### Credential Criteria:

- The bidder should have provided similar nature of services to IITs/NITs/Govt. Departments/Semi Govt. Departments/PSU/Educational Institutions of National Importance etc. during last 3(three) years. **Duly certified copies are to be enclosed.**
- Tender/Quotations are to be submitted in **TWO PARTS** i.e. **(a) Technical Bid and (b) Price Bid**, in two separate properly sealed covers; and both these covers will have to be again put in to a single sealed cover. Also, the full address of the firm submitting the tender/quotation must appear distinctly with PIN on both the inner sealed covers, indicating also **TECHNICAL BID/ PRICE BID** as may be applicable. The outer most cover shall be super scribed as
  - "QUOTATION FOR SUPPLY & INSTALLATION OF .....FOR  
..... NIT SILCHAR.
  - VIDE TENDER REF NO NITS/PS-....., DATED.....
- DATE OF OPENING .....

**[The bid will summarily be rejected & returned to the bidder if the sealed envelope containing the quotation is not super scribed as above].**

- **Genuine Pricing** (Both foreign & indigenous) :Vendor is to ensure that quoted price is not more than the price offered to any other customer in India to whom this particular item has been sold recently, particularly to IIT/Institutes and other Government Organization.
- **No Part Delivery:** Part shipment for any items will not be allowed.
- **Any Optional item quoted by the supplier will not be entertained.**
- **Termination for default :** Default is said to have occurred -
- If the supplier fails to deliver any or all of the items/services within the time period(s) specified in the purchase order or any extension thereof granted by NIT Silchar, the Institute may terminate the contract / purchase order in whole or in part and forfeit the EMD/PBG as applicable.

### TERMS & CONDITIONS:

1. The bidding agency should be reputed firm and having all necessary certificates, viz. GST registration certificate, PAN, Registration, Sale Tax clearance Certificate, Authorized Dealership/Distributorship certificate, etc. The photocopies of all the certificates should be attached with the tender.
2. The firm should be an original equipment manufacturer (OEM) in the business of manufacture or supply of equipment for minimum 3-5 years. The firm should submit audited financial statements for latest three financial years in support of this claim.
3. The items being quoted should be of Original Manufacturer and no non-standard item should be quoted. All detailed specifications with make & model no. of the items accompanied by proper leaflets should be clearly mentioned and attached with the offer. In case of **proprietary** or **patented** item, necessary certificates in support of the same should be attached. The bidder must submit the Compliance Statement and Deviation Statement of technical specification.
4. The firm should have satisfactorily manufactured or supplied equipment, as requisitioned in this tender, to IITs/NITs/Govt. Departments/Semi Govt. Departments/PSU/Educational Institutions of National Importance etc. during the last 3(three) years ending the last day of March 2018.
5. **The rate quoted must be both in words and figures and F.O.R. / Destination National Institute of Technology Silchar -788010, Assam inclusive of all charges i.e. packing, forwarding, octroi, surcharge, insurance, installation, demonstration and other charges if any. Educational discount, if any should be indicated clearly. Tenderer(s) may note that the Government of India exempts this Institute from paying custom duty/excise duty. Charges of Custom Duty (after concession as per govt. of India), IGST, Custom Clearance without any fine /demurrage/ penalty shall be paid by the**

Institute on actual basis subject to submission of original supporting bill/ vouchers. Necessary documentation like DSIR, CDE, GST Concession Certificate, Declaration Certificate, Authorization letter regarding transportation of cleared consignment up-to NIT Silchar shall be provided by the Institute on submission of Order Acceptance and Proforma Invoice. Necessary documents will be furnished if required on demand by the Tenderer(s). Rate quoted for any other destination shall not be accepted and the bid will summarily be rejected. All the CUSTOM CLEARING ISSUES and delivery of ordered items up-to destination i.e. NIT Silchar must be handled by the Supplier only.

6. Quoted rate should be inclusive of all taxes. Nothing extra will be paid by the Institution. If there is any increase / decrease of statutory taxes will be reimbursed accordingly.
7. **Payment: Payment 100% shall be made only after receipt of ordered items as per specification and quantity and after successful installation, demonstration, training (where applicable) and commissioning.**
  - **Payment: In connections to foreign items payment shall be made through wire transfer / irrevocable Letter of Credit (90% through LC and 10% after receipt of ordered items as per specification, quantity, successful installation, demonstration, training (where applicable) and commissioning).**
8. Manufacturer's/Company's name, it's trademark should be mentioned in the tender and illustrative leaflets giving technical particulars, etc. should be attached in the tender.
9. Tenderer(s) registered with the State/Central Government must quote his registration numbers, if any, and submit a xerox copy of registration along with the tender.
10. Guarantee/Warranty period offered for the tendered item is to be clearly specified.
11. The rates to be quoted by the agency should be valid for a period of **6(six) months** after the deadline date specified in the tender.
12. The quantity against each item mentioned in the tender may vary according to the actual requirements at the time of placing Purchase Order.
13. **Each bidder should clearly specify that the bidder agrees to abide by the conditions of this tender document on their printed letter head duly sealed & signed by an authorized person.**
14. **Bid Price**
  - a) **The contract shall be for the full quantity as described above. Corrections, if, shall be made by crossing out, initialing dating and rewriting.**
  - b) **The bidder should quote the total price for each item inclusive of packing and forwarding, all duties, levies, insurance, installation, demonstration and any other charges, etc. only taxes & (discount if any) should be mentioned/shown separately.**
  - c) **The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.**
15. Each bidder shall submit only one quotation.
16. All necessary documents shall be furnished along with the bid.
17. **Validity:** Tenders/Quotations shall remain valid for a period not less than **6 (six) months** after the deadline date specified for submission of tender.
18. **Packing**
  - a) The Supplier shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination as indicated in the Contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit and open storage. Packing case size and weights shall have to be taken into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.
  - b) The packing, marking and documentation within and outside the packages shall comply strictly with such special requirements as shall be provided for in the Contract including additional requirements.

19. **Evaluation of Quotations :**

NIT Silchar will evaluate and compare the tender/quotations determined to be substantially responsive i.e. which

- a) are properly signed
- b) Conform to the terms and conditions, and specifications.

20. **Award of contract:**

NIT Silchar will award the contract to the bidder whose tender/quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

- a) The bidder whose bid is accepted will be notified of the award of contract by the NIT Silchar prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.
- b) Normal commercial warranty/guarantee shall be applicable to the supplied goods.
- c) The goods (both indigenous & imported) should be insured against theft, loss or breakage during transit till destination.
- d) Upon delivery of goods, the supplier shall submit Suppliers Invoice, Insurance certificate, Warranty Certificate, Installation Certificate, Performance Bank Guarantee (where applicable) or any other document as required/demand.

21. **Acknowledgement of the Purchase Order:** The supplier shall give an acknowledgement of the Purchase Order within 15(fifteen) days of the date of the Purchase Order. In case, the supplier fails to acknowledge the Purchase Order within the stipulated time, the Institute is at liberty to cancel the Purchase Order.

22. No alternations in tender forms shall be made by the bidder and if any such alteration is made, the tender is liable to be rejected.

**a) Delivery Schedule and Penalty for Delay:** Delivery of equipment should be made **within 30(thirty) days OR as per terms and condition of Purchase Order** from the date of issue of Purchase Order. **Penalty at the rate of 0.5% or part thereof of the order value per week, subject to a maximum of 2.5% will be imposed for delayed delivery and installation.**

23. **Demurrages and penalty, if any, paid by the supplier shall not be borne by the Institute.**

24. The tenders submitted shall clearly mention the name of the firm/person in whose favour the purchase order is to be placed.

25. Contact details of the person for all post sales/installation maintenance support should clearly be given with **Name & Designation, Phone No, Fax No, Mobile, E-mail and official address.**

26. National Institute of Technology Silchar is not liable for non-receipt of the tender forms in time due to wrong address/ any delivery delay of the mail service provider/ force majeure. Tender documents received after the last date and time for receiving tenders will be summarily rejected.

27. **Successful bidder shall give a performance security @10% or (as per Purchase Order) of the total order value in the form of Bank Guarantee.** The performance security shall be furnished along with the Bill / Invoice after the order for supply is placed and before the final payment. Validity of the Performance Security shall cover the warranty period.

- The proceeds of the Performance Security shall be payable to the purchaser as compensation for any loss resulting from the suppliers failure to complete its obligations under the contract.

28. All legal disputes shall be under the jurisdiction of the Silchar Courts of Cachar District in the state of Assam.

  
Registrar, NIT Silchar

## **DECLARATION**

I / We hereby declare that no case is pending with the police/ court against the proprietor/ firm/ partner or the company (Agency). Also I /We have not been suspended / blacklisted by any PSU / Government Department / Financial Institution / Court.

**(Signature & seal of the contractor)**

Place:

Date:

## **NO DEVIATION CERTIFICATE**

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions of this tender and we do not have any deviation to this tender enquiry. We hereby undertake and confirm that we have understood the scope of work properly and shall be carried out as mentioned in this tender enquiry.

**(Signature & seal of the contractor)**

Place:

Date:

**BIDDERS DETAILS**

<b>Name of the Contractor /Party/ Firm</b>	:	<input type="text"/>
<b>Name of Authorized Representative</b>	:	<input type="text"/>
<b>Phone Nos.</b>	:	<input type="text"/>
<b>Mobile Nos.</b>	:	<input type="text"/>
<b>Fax No.</b>	:	<input type="text"/>
<b>E-Mail Address</b>	:	<input type="text"/>
<b>Web Site Address ( If Any)</b>	:	<input type="text"/>

**(Signature & seal of the contractor)**

Place:

Date:



## **CHECK-LIST (TECHNICAL BID)**

### **SUMMARY OF COMPLIANCE TO REQUIREMENT OF TENDER**

<b>Sl. No.</b>	<b>Description of Requirement</b>	<b>Yes / No / NA</b>	<b>Page No.</b>
1.	Tender Cost Rs.1000/- (Non-refundable) in the form of Demand Draft in favour of "Director, NIT Silchar" in a separate envelope		
2.	EMD @2% of total bid value in the form of Demand Draft /Bank Guarantee in favour of "Director, NIT Silchar" in a separate envelope		
3.	Copy of Manufacturer/ Authorized Supplier Certificate		
4.	Audited financial statement for the last 3 years		
5.	Copy of the PAN card.		
6.	Copy of GST registration certificate		
7.	Copies of previous work order of similar work with completion certificate (if any)		
8.	Declaration certificate		
9.	No Deviation certificate		
10.	Bidder's details		
11.	Technical Specification		
12.	NSIC/SSI/MSME Certificate where applicable		
13.	All the pages of tender document have been signed		
14.	Price bid in separate sealed envelope.		
15.	Complete copy of Techno Commercial Bid submit along with the Price Bid.		

**(Signature & seal of the contractor)**

Place:

Date:

**Technical Specification****1. Server for normal computation, Qty. - 5**

<b>Parameter</b>	<b>Specification</b>
Processor	1 x Intel Xeon Silver Gold 6100, 12C/24T, HT, DDR4-2666 or higher
Processor scalability	Upto 2 processors
Cache	> 19 MB
Chipset	Intel Chipset or OEM (no sticker etc.)
Memory	4 x 32GB RDIMM, 2666MT/s
Memory Scalability	Min. 24 DDR4 DIMM slots supporting RDIMM /LRDIMM, scalable to min. 1024 GB
Network Controller	1 x On-Board LOM 1GBE (Dual Port) , Dual Port 16Gbps FC HBA Card for Storage connectivity
Storage Controller	Integrated HW RAID controller supporting RAID 0, 1
Storage	2 x 600 GB SAS 10K rpm, 12Gbps 2.5in Hot-plug Drive
Storage Bay	Min. 8 x 2.5”HDD from Day 1 supporting SAS, SATA, SSD drives
Optical Drive	DVD RW
Expansion Slots	Min. 3 PCIe Gen 3 slots all x16 full height
USB Ports	Min. 02 USB 3.0 ports
Other Ports	1 serial and 1 graphics
Power Supply	Redundant Platinum rated Power Supply (at least 500 Watts each) to sustain above configuration.
Cooling	Hot plug and redundant fans
Form Factor	1U rack model
Remote Management	Should be agent-less, supporting at least web-based GUI for remote management
Server Management	The Server Management Software should be of the same OEM as that of the server.
Certification	The OEM must be ISO-14001.
OS Support	Canonical Ubuntu LTS, Citrix XenServer, Microsoft Windows Server with Hyper-V, Red Hat Enterprise Linux, VMware ESXi
Warranty	5 year onsite comprehensive warranty (5-5-5). Vendors other than OEM of the server should submit duly authenticated document (in original) from the OEM of the server clearly stating that, they have been authorised by the OEM to bid for this item and in the event of becoming successful bidder they shall be entering into a back-to-back contract for the period & item indicated above against the purchase-order issued to them for this item.

End-of-Support/End-of-Life	The bidder is needed to submit a document from the OEM (in original) stating that the item quoted including all add-on components and/or optional components quoted, have not been declared End-of-Support and/or End-of-Life as on the last date of submission of the bid for this item.
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## 2. Server with GPU, Qty. - 3

Parameter	Specification
Processor	2 x Intel Xeon Silver Gold 4100, 12C/24T, HT, DDR4-2666 or higher
GPU	1 x NVIDIA Tesla V100 PCIe 32GB scalable to min. 2 x NVIDIA Tesla V100 PCIe
Cache	> 19 MB
Chipset	Intel Chipset or OEM (no sticker etc.)
Memory	4 x 32GB RDIMM, 2666MT/s
Memory Scalability	Min. 24 DDR4 DIMM slots supporting RDIMM /LRDIMM, sclable to min. 1 TB
Network Controller	1 x On-Board LOM 1GBE (Dual Port) , Dual Port 16Gbps FC HBA Card for Storage connectivity
Storage Controller	Integrated HW RAID controller supporting RAID 0, 1
Storage	2 x 600 GB SAS 10K rpm, 12Gbps 2.5in Hot-plug Drive
Storage Bay	Min. 16 x 2.5”HDD from Day 1 supporting SAS, SATA, SSD drives
Optical Drive	DVD RW
Expansion Slots	Min. 6 PCI-Express 3.0 slots out of which at least min. 3 should be x16 full height
USB Ports	Min. 02 USB 3.0 ports
Other Ports	1 serial and 1 graphics
Power Supply	Redundant Platinum rated Power Supply (at least 1100 Watts each) to sustain above configuration.
Cooling	Hot plug and redundant fans
Form Factor	2U rack model
Remote Management	Should be agent-less, supporting at least web-based GUI for remote management
Server Management	The Server Management Software should be of the same OEM as that of the server.
Certification	The OEM must be ISO-14001.
OS Support	Canonical Ubuntu LTS, Citrix XenServer, Microsoft Windows Server with Hyper-V, Red Hat Enterprise Linux, VMware ESXi

Warranty	5 year onsite comprehensive warranty (5-5-5). Vendors other than OEM of the server should submit duly authenticated document (in original) from the OEM of the server clearly stating that, they have been authorised by the OEM to bid for this item and in the event of becoming successful bidder they shall be entering into a back-to-back contract for the period & item indicated above against the purchase-order issued to them for this item.
End-of-Support/End-of-Life	The bidder is needed to submit a document from the OEM (in original) stating that the item quoted including all add-on components and/or optional components quoted, have not been declared End-of-Support and/or End-of-Life as on the last date of submission of the bid for this item.

### 3. Storage, Qty. - 1

Parameter	Specification
Type	The primary storage should be a Unified storage system with both NAS and SAN functionality
Controllers	Dual Active Redundant controllers in no single Point of Failure configuration. Both the controllers shall work in Active – Active mode.
Cache	The storage system must be configured with 2 x 32 GB Cache (total 64 GB cache) or higher. The array should be capable of scaling system cache to 128 GB or higher.
Disk Support	Support for SSD, SAS 12 Gbps & NL-SAS disks within same storage system. Storage should be provided with 256 Bit encryption for the entire capacity offered.
Protocols and Ports Support	CIFS, NFS, 8/16 Gb/s FC, iSCSI (1 and 10 Gb) support required.
Other Protocols Support	The System should support SNMP, Address resolution protocol, Simple Network Time Protocol, LDAP, Network Lock Manager v4.
Software licenses	The system should be configured with licenses for FC and iSCSI. CIFS, NFS, Deduplication / compression should be supported. Thin Provisioning, Virtualization integration software license should be provided for entire system.
RAID support	It should support RAID levels 10, 5 and 6
Scalability	The same storage should be expandable to 150TB after incorporating the above capacities within a single server rack space
Storage space	The bidder should configure 30TB usable capacity after RAID 5/6, using SAS Drives
Snapshot	The system should be configured with Snapshot licenses, snapshot restore licenses for the entire systems capacity.
OS support	It should support heterogeneous client OSs, which includes all popular flavors of Windows and Linux with multipathing software
Connectivity	The system is to be configured with 4 x 16Gbps FC ports and 4 nos' of 10Gbps iSCSI / IP ports.
Management port	There must be 2 x 10/100/1000 Mbps ports for management

LUN	Must support minimum 200 LUNs or higher. The storage must have the capability to expand LUNs/ volumes online
Replication	Storage array should be configured with license for Replication.
Warranty	5 years onsite comprehensive warranty from OEM ( Bidder must provide the Part No. of the Warranty in the BOM)
End-of-Support/End-of-Life	The bidder is needed to submit a document from the OEM (in original) stating that the item quoted including all add-on components and/or optional components quoted, have not been declared End-of-Support and/or End-of-Life as on the last date of submission of the bid for this item.

#### 4. SAN Switch, Qty. - 2

Parameter	Specification
Type	24 port 16G FC SAN switch with min. 16 port populated license on each switch from day-1 along with SFPs. Additionally 16 nos. of 5m LC-LC OM4 FC cable should be quoted.
Aggregated bandwidth	Min. 700 Gbps
Service class	Class-2, Class-3, Class-F
Interfaces supported	E_PORT, F_PORT, Ethernet Management port
Management services from Day-1	Zoning, Web-based management, Detailed monitoring, management and diagnostics
Certifications	FCC , ROHS
Warranty	5 years onsite comprehensive warranty from OEM ( Bidder must provide the Part No. of the Warranty in the BOM)
End-of-Support/End-of-Life	The bidder is needed to submit a document from the OEM (in original) stating that the item quoted including all add-on components and/or optional components quoted, have not been declared End-of-Support and/or End-of-Life as on the last date of submission of the bid for this item.

#### 5. Rack Console, Qty. - 1

Console	1U 19" widescreen LCD console drawer
	DVI-D + VGA video input / USB KB / MS
	104-key keyboard with either touchpad or trackball
	Short depth design of less than 500 mm
	Rack Mountable

#### 6. Operating System (addition to existing volume licenses)

Linux	Redhat Enterprise Linux Server - 7 nos
Windows	Windows Server 2019 Essential - 1 no

## 7. KVM Switch, Qty. - 1

Parameter	Specification
Technical	Should have a minimum of 16 ports
	Should connect computers via USB.
	Should support Windows, Linux, Mac OS9/OSX
	Should support On-Screen-Display (OSD) & Cascade Chain functions
	Should provide OSD with intuitive menus for quick and effective navigation
	Should provide configurable OSD hot key combinations
	Should support min. 1920 x 1080 resolution
	Should allow single console cascaded units without any special configuration
	Should be hot-pluggable: all devices connected to KVM can be added or removed at any time without shutting down the devices.
	Should auto scan video for effortless monitoring
	Should allow switch between connected devices with: Hardware Push Button, Hot-Keys on USB keyboard, OSD menu
	Should allow hotkey combination: Scroll-lock, Cap-lock, Num-lock, Alt, Ctrl & Win
	Should supports LED display for PC and/or server status monitoring
	Should support video resolutions Up to 1920 x 1080 / 1920 x 1200 when collecting to FHD 17" panel
Should be rack mountable in 19" rack occupying max. 1U	
Operating temperature : 0 to 45°C degree	
Certifications	FCC, ROHS
Warranty	5 years onsite comprehensive warranty from OEM ( Bidder must provide the Part No. of the Warranty in the BOM)
End-of-Support/End-of-Life	The bidder is needed to submit a document from the OEM (in original) stating that the item quoted including all add-on components and/or optional components quoted, have not been declared End-of-Support and/or End-of-Life as on the last date of submission of the bid for this item.

## 8. Top-of-Rack (ToR) Switch, Qty. - 1

Architecture	Managed switch with 24 x 10/100/1000 Mb auto-sensing ports with minimum of 4 10 GbE SFP+ ports.
	Should have one out of band ethernet Management ports and one serial Console port

	<p>The switch should be supplied with necessary modules / transceivers of the same OEM as the switch on all ports. 24 x 1000BASE-T SFP and 4 x 10 GbE SFP+ for 1310 nm. <b>(Bidder to quote cost of transceiver as separate item. If desired, bidder may physically inspect the site, before submission of bid, at their own cost after obtaining permission from the concerned department in this regard.)</b></p>
	Should have at least 120Gbps switching fabric
	Should have switching throughput of minimum 100 mpps
<b>L2 and L3 features</b>	Should support minimum 512 VLAN
	Should have minimum 16K MAC table
	Should support Static IP routing, RIP \from day-1
	Should be IPv6 enabled on day-1 without any additional hardware/software
<b>Security and Management</b>	Should support MAC based, IP based and Time based ACL
	DHCP protection to block DHCP packets from unauthorized DHCP servers, preventing denial-of-service attacks should be supported
	The switch shall support multiple administrator accounts. Each administrator account shall be configurable with the desired level of management privileges
	The switch should support SNMP V2 and V3
	Secure Web based management (https) and SSH v2 based management should be supported
	Time synchronization using Network time protocol must be available
<b>QoS</b>	Should support IP multicast Snooping
	Should have IEEE 802.1AB Link Layer Discovery Protocol (LLDP)
	Should have IEEE 802.1p Traffic prioritization allowing real-time traffic classification into 8 priority levels mapped to 8 queues
	Should be able to set the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), TCP/UDP port number, source port, and DiffServ
<b>Manageability</b>	Should support IEEE 802.1d, 802.1s, 802.1w
	Should support IEEE 802.3ad Link Aggregation Control Protocol (LACP)
<b>Safety &amp; Env. certification</b>	FCC Part 15 Class A, RoHS
	The switch shall conform to IEC-60950/CSA-60950/EN-60950/UL-60950 standard for safety requirements of information technology equipment.
<b>Others</b>	Should be operating in temperature: 0°C to 45°C
	OEM End-of-sale declaration shall not have been released for the quoted model at the time of the bid submission. Bidder must submit this declaration, certified by the OEM, alongwith the bid.
	The switch shall be supplied with the latest OS version

<p>All the specified features/parameters/certifications must be available on the Technical Bid opening date. Features/parameters/certifications proposed to be available in near future/on roadmap shall not be considered</p>
<p>Authorization letter from OEM (Active) (in original) as proof of being authorized system Integrator and authorization certificate for sale and maintenance of quoted products.</p>
<p>Proposed switch should be offered with min. 5 year warranty with NBD. Successful bidder, upon award of the work order/purchase order, will have to submit a letter from the OEM (in original) stating that, they have entered into back-to-back contract, mentioning explicitly the terms and period of the contract, with the OEM.</p>
<p>The OEM should have presence in India for min 10 years and the incorporation letter for the same has to be submitted along with bid.</p>
<p>All the proposed switches IOS should be on the same platform for seamless and ease of manageability.</p>