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अमृतं तु विद्या
Bharatiya Vidya Bhavan's
Sardar Patel College of Engineering

(Government-Aided Autonomous Institute)

MUNSHI NAGAR, ANDHERI (WEST), MUMBAI - 400 058.



E-mail : principal@spce.ac.in
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INVITATION FOR QUOTATION

TEQIP-III/2018/bspc/Shopping

07-Sep-2018

To,

[Redacted recipient information]

Sub: Invitation for Quotations for supply of Goods

Dear Sir,

1. You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

Sr. No	Brief Description	Qty	Delivery Period (In days)	Place of Delivery
1	Access Switch	35	30	SPCE Mumbai
2	Core Switch	1	30	SPCE Mumbai
3	Distribution Switch	7	30	SPCE Mumbai
4	Fibre Optic Cable & Allied Accessories	1	30	SPCE Mumbai
5	Installation & Configuration	1	30	SPCE Mumbai
6	Passive cabling & components	1	30	SPCE Mumbai
7	Rack component & cabling accessories	1	30	SPCE Mumbai
8	Switches miscellaneous parts	1	30	SPCE Mumbai
9	Warranty and after-sales services	1	30	SPCE Mumbai

* Installation, commissioning, integration & configuration with existing infrastructure required.

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2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.
3. Quotation,
 - 3.1 The contract shall be for the full quantity as described above.
 - 3.2 Corrections, if any, shall be made by crossing out, initialing, dating and re writing.
 - 3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit price.
 - 3.4 Applicable taxes shall be quoted separately for all items.
 - 3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
 - 3.6 The Prices should be quoted in Indian Rupees only.
4. Each bidder shall submit only one quotation.
5. Quotation shall remain valid for a period not less than **30** days after the last date of quotation submission.
6. Evaluation of Quotations,

The Purchaser will evaluate and compare the quotations determined to be substantially responsive i.e. which

 - 6.1 are properly signed ; and
 - 6.2 confirm to the terms and conditions, and specifications.
7. The Quotations would be evaluated for all items together.
8. Award of contract:

The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.

 - 8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.
 - 8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be incorporated in the purchase order.



9. Payment shall be made in Indian Rupees as follows:

Delivery and Installation and Satisfactory Acceptance - 90% of total cost

10. All supplied items are under warranty of **60 months** from the date of successful acceptance of items.
11. You are requested to provide your offer latest by **16:00 hours on 21-Sep-2018** .
12. Detailed specifications of the items are at Annexure I.
13. Training Clause (if any) **Training to be provided**
14. Testing/Installation Clause (if any) **Installation, commissioning, integration and configuration with existing system required.**
15. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
16. Sealed quotation to be submitted/ delivered at the address mentioned below,
Bhavan's Campus, Munshi Nagar, Andheri (W), Mumbai 400058
17. We look forward to receiving your quotation and thank you for your interest in this project.

(Authorized Signatory)

Name & Designation


TEQIP III Co-ordinator
BVB'S Sardar Patel College of Engineering-
Mumbai - 400 053.

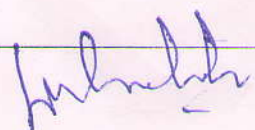
Annexure I

Sr. No	Item Name	Specifications
1	Access Switch	<p>The switch shall have 24/48 RJ-45 auto-negotiating 10/100/1000 ports. The switch shall have four 1000BASE-X SFP ports in addition to above ports. Shall support 1000 Base- SX, LX, SFP transceivers. Switching capacity of 104 Gbps. Switching throughput of up to 77 million pps. Should have 256 MB SDRAM and 64 MB flash and 1 RJ-45 console port. MAC Address table size of 8,000 entries. Management: Web management, HTTP and HTTP Secure (HTTPS) Web management. Switch should support SNMPv1, v2c, and v3. Port mirroring, Dual flash images, Network Time Protocol (NTP), DHCP client mode, FTP and TFTP and Remote monitoring (RMON). Quality of Service (QoS): Traffic prioritization, IEEE 802.1p/Q VLAN tagging, Advanced classifier based QoS, Packet storm protection, Rate limiting, Class of Service (CoS) and strict priority queuing (SP) and weighted round robin (WRR) queuing. Connectivity: IPv6 host, IEEE 802.3X Flow Control, Support Loop protection, Auto MDI/MDI-X, Energy Efficient Ethernet (EEE), Auto-port shut down, Energy savings status and Energy-efficient cooling. Security: Access Control Lists (ACLs), RADIUS, RADIUS authentication and configuration of up to 8 RADIUS servers, RADIUS Accounting, IEEE 802.1X access control, Switch 802.1X supplicant, Port isolation, Automatic denial-of-service protection, Support Management password and Secure Sockets Layer (SSL). Performance: Half-and full-duplex auto-negotiating capability on every port, IGMP snooping. Layer 2 switching: Support standard IEEE 802.1D STP, IEEE 802.1w Rapid Spanning Tree Protocol (RSTP) for faster convergence, and IEEE 802.1s Multiple Spanning Tree Protocol (MSTP), BPDU filtering, Jumbo frame, VLAN with 256 VLANs and 4000 VLAN ID Layer 3 services: Support Address Resolution Protocol (ARP). Support DHCP relay. Layer 3 routing: Support up to 32 static routes to allow manual routing configuration, Link aggregation and support 4 trunks with eight ports per trunk either automatically using Link Aggregation Control Protocol (LACP). Convergence: Support LLDP-MED (Media Endpoint Discovery) Auto voice VLAN. Certification: UL 60950; IEC 60950-1; EN 60950-1; CAN/CSA-C22.2 No. 60950-1 FCC part 15 Class A; VCCI Class A; EN 55024; CISPR 22 Class A; EN 61000-3-2 , 61000-3-3; ICES- 003 Class A. Warranty and Support: Limited Lifetime Warranty. This is over and above any limited/extended lifetime warranty provided by OEM and the same cannot be substituted as support provided. The serial number of the switches will be checked on the OEM Website as material acceptance criteria. Warranty shall be offered directly from the switch OEM.</p>
2	Core Switch	<p>19" Rack Mountable and stackable. Minimum 10 Fixed Gigabit Ethernet SFP Ports and 10 RJ45 Ports 1 dual-personality (RJ-45 or USB micro-B) serial console port Uplink Redundancy with CAT 6 should be provided between Core and distribution layer to provide failover in the event of any of the uplink failure/fiber cut. Full L3 manageable switch required. Should have 4 10G SFP ports for future perspective. 1GB SDRAM and 512 Flash Switching Capacity minimum 120Gbps. Resiliency: IEEE 802.1D Spanning tree protocol ,IEE 802.1w Rapid Spanning tree Protocol and IEEE 802.1s Multiple spanning tree protocol. Link Aggregation Protocol VRRP Graceful Restart for OSPF, IS-IS and BGP protocols. Layer2 Features: IEE 802.1Q based VLAN'S. GARP VLAN Registration Protocol Internet Group Management Protocol (IGMP) Multicast Listener Discovery (MLD) snooping IEEE 802.1AB Link Layer Discovery Protocol (LLDP) Multicast VLAN to allow multiple VLANs to receive the same IPv4 or IPv6 multicast traffic. Layer3 Features: Static Routing for IPv4 and IPv6 RIP for IPv4 (RIPv1/v2) and IPv6 (RIPng) OSPF for IPv4 (OSPFv2) and IPv6 (OSPFv3) IS-IS for IPv4 and IPv6 (IS-ISv6) Policy-</p>

[Handwritten Signature]

		<p>based routing Dynamic Host Configuration Protocol (DHCP) client, Relay and server PIM Dense Mode (PIM-DM), Sparse Mode (PIM-SM), and Source-Specific Mode (PIM-SSM) for IPv4 and IPv6 multicast applications MPLS capability including MPLS VPNs and MPLS Traffic Engineering (MPLS TE) VPLS for data center to data center communication at Layer 2; provides support of hierarchical VPLS for scalability. QoS and Security Features: Access Control Lists for both IPv4 and IPv6 for filtering traffic to prevent unauthorized users from accessing the network Port-based rate limiting and access control list (ACL) based rate limiting Congestion avoidance using Weighted Random Early Detection (WRED) IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port Media access control (MAC) authentication to provide simple authentication based on a user's MAC address Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers Port security and port isolation. Management Features: Configuration through the CLI, console, Telnet, SSHv2 and Web browser management interfaces SNMPv1, v2, and v3 and Remote monitoring (RMON) support Management security through multiple privilege levels with password protection FTP, TFTP, and SFTP support Port mirroring to duplicate port traffic (ingress and egress) to a local or remote monitoring port. Shall support minimum four mirroring groups RADIUS/TACACS+ for switch security access administration Network Time Protocol (NTP) or equivalent support. The capability to find and fixes common network problems automatically. Warranty and Support: 5 Yrs. 24X7X4 Support. Warranty shall be offered directly from the switch OEM. Lifetime warranty with advance replacement and next-business-day delivery. Software upgrades/s shall be included as part of the warranty.</p>
3	Distribution Switch	<p>Switch should 1RU, 19" Rack Mountable and stackable 24ports RJ-45 autosensing 10/100/1000 Mbps ports Support two 10-Gigabit ports SFP+ and 2 RJ-45 1/10GBASE-T ports in addition to the above ports Shall provide Gigabit (1000 Mb) Latency of < 5 μs and 10 Gbps Latency of <1.5 μs 1 RJ-45 (serial RS-232C) or USB micro-B console port Minimum 128 MB DRAM, 32 MB Flash Switching capacity of 20 Gbps for providing non-blocking performance on all Gigabit ports. Connectivity: Auto-MDI/MDIX to adjust automatically to straight-through or crossover cables on all 10/100/1000 and 10GBASE-T ports. Support IEEE 802.3X flow control. Fully IPv6 capable. MLD snooping to forwards IPv6 multicast traffic to the appropriate interface, preventing traffic flooding. Performance: Half-/full-duplex auto-negotiating capability on every port. Support IGMP / MLD Snooping to improve network performance by filtering multicast traffic when there is no multicast receiver on a connection. Security: Access Control Lists (ACLs), IEEE 802.1X and RADIUS network logins to controls port-based access for authentication and accountability, Automatic VLAN assignment, STP BPDU port protection to blocks Bridge Protocol Data Units (BPDUs) on ports, protect the root bridge from malicious attacks or configuration mistakes, support Automatic denial-of-service protection to protects the network by blocking malicious DoS attacks aimed at the switch itself. Quality OF Service(QoS): Support Broadcast control to allow limitation of broadcast traffic rate to cut down on unwanted network broadcast traffic. Support Rate limiting to sets per-port ingress enforced maximums and per-port, per-queue minimums. Traffic prioritization and four hardware queues. Resiliency: Support stacking and create a single logical managed unit with up to four switches. Link Aggregation Control Protocol (LACP) up to eight links (ports) per group The switch supports up to 128 trunks. IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol IEEE 802.3ad Convergence: Support LLDP-MED (Media Endpoint Discovery) Auto voice VLAN to</p>

		<p>recognize IP phones and automatically assigns voice traffic to dedicated VLAN for IP phones. Layer 2 Switching: VLAN support and tagging. All the Switches should be L2 manageable. MAC address table size of 16000 entries IEEE 802.1Q (4,094 VLAN IDs) and 512 VLANs simultaneously Support GARP VLAN Registration Protocol or equivalent feature to allow automatic learning and dynamic assignment of VLANs Jumbo frames to improve the performance of large data transfers Internet Group Management Protocol (IGMP) Multicast Listener Discovery (MLD) snooping IEEE 802.1AB Link Layer Discovery Protocol (LLDP) and LLDP-MED (Media Endpoint Discovery) IPv6 host and Dual stack (IPv4/IPv6) support to provide transition mechanism from IPv4 to IPv6. Layer 3 services: DHCP relay. Address Resolution Protocol (ARP) to determines the MAC address of another IP host in the same subnet; Supports static ARPs; gratuitous ARP allows detection of duplicate IP addresses; proxy ARP allows normal ARP operation between subnets or when subnets are separated by a Layer 2 network. Layer 3 routing: Support Static IPv4/IPv6 routing. Support 8 virtual VLAN interfaces. QoS and Security Features: Access Control Lists for traffic filtering Traffic prioritization based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port. Port security to allow access only to specified MAC addresses. Management Features: Configuration through the CLI, console, Telnet, SSH and browser-based management GUI (SSL) SNMPv1, v2, and v3 and Remote monitoring (RMON) support sFlow (RFC 3176) or equivalent for traffic analysis TFTP and Secure FTP support Dual flash images to provide independent primary and secondary operating system files Multiple configuration files to allow multiple configuration files to be stored to a flash image RADIUS/TACACS+ for switch security access administration Simple Network Time Protocol (SNTP) or equivalent support Environmental Features: Safety and Emission standards including UL 60950; IEC 60950-1; VCCI Class A; EN 55022 Class A Warranty and Support Limited Lifetime Warranty. Warranty shall be offered directly from the switch OEM. This is over and above any limited/extended lifetime warranty provided by OEM and the same cannot be substituted as support provided. The serial number of the switches will be checked on the OEM Website as material acceptance criteria.</p>
4	Fibre Optic Cable & Allied Accessories	<p>Fiber Cable 6 Core multimode Armored Cable All the Uplinks from core switch to Distribution switches should be on Fiber optic cable. 24 port, 1U sliding fiber drawer, 6 Pak LC adapter plate with 6 duplex, MM LC adapters: Qty. 12 Nos. 24F splice tray, Pigtail, MM, 1.5 Mtr LC, 24F splice holder, Duplex SC Blank, Kit of 3- Black (to configure 17.C102G and 17.C139G) Fiber Patch cord, Multimode, Duplex, LC to LC, 3 mtr Loaded or Unloaded 12 ports or 24 Ports Multimode Duplex (No of patch cords will be depending on the Solution Provided). Multimode Adapter with Kit. Cable Length will be depending on the solution.</p>
5	Installation & Configuration	<p>Installation & Configuration of Core, Distribution and Access Switches. Splicing of Pigtails, OTDR Fibre Testing. Entire cable & fibre laying, Racks, UTP Line Charge, Jack Panel Termination, patch panels installations, I/O terminations, rack dressing, server rack dressing, Numbering of patch cords and panels, Laying of conduit pipe, flexible pipe, casing Patti, back box and face plate fixing, stickering and documentation, LIU installation, fiber Pulling Per Meter, Fiber Termination. Workshop Isolated building uplink should be redundant fiber as well as cat-6. (The vendor should bare all the expenses for the above digging work.) The integration and configuration of the new system with the existing system (servers, firewall, DNS server, etc.) to be done by the Vendor. The Diagram of the solution being provided is to be supplied by the vendor alongwith the quote.</p>



6	Passive cabling & components	Cat-6 UTP CABLE with High Standards. Cable shall exceed all ANSI/TIA and ISO Category 6/Class E requirements. Vendors are permitted to vary length of cabling (Number of UTP cable boxes) depending on the Solution of the Network. (Approx. 130 boxes +/- 5%) No. of Data Nodes: 800 +/- 10% with I/O Box Termination Cat-6 Patch Cords 2Mtr or 1Mtr as per requirement for every node. Face Plate Fixing, Back BOX Mounting, Laying of PVC Conduit Pipe, flexible pipe, Capon Casing. Naming of I/O points. End to End Cable Testing (Fluke Testing), 12U & 9U Rack Installation, Rack Dressing, Splicing of Pigtails, OTDR Fibre Testing. All the Uplinks need to be replaced by Cat-6 or Fiber Depending on Solution. Workshop Isolated area should have Fiber as well as 1 Copper Uplink From any of the Distribution or Access Switch.
7	Rack component & cabling accessories	12 U racks 02 Nos., 9 U racks 05 Nos., 15 U rack 01 No., 1" PVC Conduit Pipe With Coupler, 1" PVC Coupler, 1" PVC Accessories, 1" PVC Flexible Pipe, 1" PVC Capon Casing, 2" PVC Capon Casing, 1" Saddle, 1" PVC Bend PVC four way junction box, 12U x 600 x 500 Rack Wall Mount, 6 socket PDU 5 amp, Fan of 90 CFM, 1U Horizontal PVC Cable Manager, Front Panel Mounting Hardware (Pack of 20), XLB 9U x 600 x 500 Rack Wall Mount, 6 socket PDU 5 amp, Fan of 90 CFM, 1U Horizontal PVC Cable Manager, Front Panel Mounting Hardware (Pack of 20) Replacement of all patch panels in the existing racks to new Cat-6 Patch Panels. All Old Uplinks need to be replaced with new ones. Vendors are permitted to vary number and type of Racks (12u, 9u or 15u) depending on Solution. (Minimum number of racks used should be 12)
8	Switches miscellaneous parts	Transceiver, 1G SFP, RJ 45 transceiver, FC 24x7, 24 G, SFP 4 SFP SVC, LX, 1310nm Wavelength, 2M Rack Power Cord C13/C14 12A 2 Boxing Label Mod 1, SFP+ 10GbE Module, 1G SFP LC SX Transceiver, 1G SFP LC SR Transceiver, 1G SFP LC SX 500m MMF XCVR, 300m MMF XCVR,
9	Warranty and after-sales services	Core switch: 5 Yrs. 24X7 Support. Warranty offered directly from switch OEM. Lifetime warranty with advance replacement and NBD delivery. Software upgrades/s included as part of the warranty. Distribution Switch: Limited Lifetime Warranty offered directly from the switch OEM. This is over and above any limited/extended lifetime warranty provided by OEM and the same cannot be substituted as support provided. Access switch: Limited Lifetime Warranty offered directly from switch OEM. This is over and above any limited/extended lifetime warranty provided by OEM and the same cannot be substituted as support provided. Serial number of all switches will be checked on OEM Website for material acceptance. Required vendor Support for 3 yrs. Network diagram & documentation to be provided. Vendor must have done min. 03 projects of similar volumes in last 2 yrs. Vendors need to quote for a single OEM for all active parts.


TEQIP III Co-ordinator
 BVB'S Sardar Patel College of Engineering
 Mumbai - 400 058.

FORMAT FOR QUOTATION SUBMISSION
(In letterhead of the supplier with seal)

To: _____

Date: _____

Sl. No.	Description of goods (with full Specifications)	Qty.	Unit	Quoted Unit rate in Rs. (Including Ex Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments)	Total Price (A)	Sales tax and other taxes payable	
						In %	In figures (B)
Total Cost							

Gross Total Cost (A+B): Rs. _____

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Amount in figures) (Rupees _____ amount in words) within the period specified in the Invitation for Quotations.

