CENTRE FOR DISTANCE & ONLINE EDUCATION, UNIVERSITY OF JAMMU

Supply, Installation, and Upgradation of Active & Passive Networking Components

of

Centre for Distance & Online Education University of Jammu

Mode of Tender - e-Tendering on GeM Portal

Issued by

Director
CENTRE FOR DISTANCE & ONLINE EDUCATION, UNIVERSITY OF JAMMU

Email: distanceeducationju@gmail.com, Website: www.distanceeducationju.in

1. Invitation to Bid and Eligibility Criteria

- The University of Jammu (CDOE-JU) CDOE-JU invites e-tenders through the GeM Portal from eligible and experienced OEMs/authorized System Integrators for the supply, installation, configuration, testing, and commissioning of active and passive networking components under a two-bid system (Technical and Financial).
- Bidders must fulfil the eligibility criteria, technical requirements, experience, and other bidding qualifications specified in the tender document and applicable GeM terms and conditions.
- CDOE-JU reserves the right to cancel the tender at any stage of the tendering process.
- CDOE-JU reserves the right to modify the scope of work, with corresponding adjustments in charges, as per applicable rules and contract terms.

1. Key Events & Dates

Sl. No.	Particulars	Details
01	Tender Notice No	CDOE/Adm/26/2063 dt 27.10.2026
02	Bid Security/ EMD	Rs. 2,00,000/-
03	Electronic Performance Bank Guarantee (EPBG)	05 % of Bid Value
04	Tender Name	**Procurement Installation and Commissioning of Networking Components, Active and passive**
05	Date of Issue	05/11/2026
06	Last date for seeking clarifications, if any	2 Days
07	Last date & time of submission of Bid (Technical & Commercial)	25/11/2026 10.00 AM
08	Date & time of opening of Technical Bids	26/11/2026 10:00 AM
09	Date & time of Pre-Bid meeting/site survey	12/11/2026 3:00 PM
10	Name of the contact person	**Director, CDOE University of Jammu**

	for any clarification	
11	e-mail Address	**distanceeducationju@gmail.com (Please quote the Tender notice no. in the Subject Line of the e-mail)**
12	Validity of Proposal	The rates in tender document shall be kept open from acceptance for a minimum period of 120 days (from last due date of offer submission (incl. extension, if any)

INSTRUCTIONS TO BIDDER(S)

1. Bidder(s) shall submit their bid (comprising of "Technical" and "Financial" bid), online at GEM Portal.

2. **On Line submission of bids**: Online bids will have to be submitted within the time specified on website https://gem.gov.in/ in the following manner:-

   a) **Technical Bid: Scanned Copies to be uploaded (.pdf):**
   The technical information should be prepared very carefully and as indicated in the tender document since it will form the basis for pre-qualification of bidder(s). Only relevant and to the point information/document should be uploaded. Failure to provide any required information, may lead to the rejection of the offer. Bidder(s) must read the tender document very carefully before signing on it.

   b) **Financial Bid: (.xls):** Bidder(s) must read the terms and condition as mentioned in this tender document and submit the form accordingly. Bidder(s) are required to check the prices / amount carefully before uploading financial bid.

3. Submission of more than one bid is not allowed and shall result in disqualification of the bidder.

4. **Validity of bids:** Bid submitted by the Bidder(s) shall remain valid for acceptance for a minimum period of 120 days from the last date of submission of bid (Technical and Financial), including extensions, if any.

5. CDOE-JU reserves the right to reject any or all the bids without assigning any reasons thereof.

6. **Authorization and Attestation:** Bidder(s) must submit an Authorization Letter or valid Power of Attorney on behalf of firm for signing the document.
7. Bidder(s) are advised to study all the tender documents carefully.

8. Any conditional bid received shall not be considered and will be summarily rejected in very first instance without any recourse to the bidder(s).

9. The specifications and terms and conditions shall be deemed to have been accepted by the Bidder(s) in their offer.

10. Non-compliance with any of the requirements and instructions of this tender document may result in the rejection of the tender.

11. This document constitutes no form of commitment on the part of the UNIVERSITY OF JAMMU. Furthermore, this document confers neither the right nor an expectation on any party to participate in the tendering process.

12. Merely participation in this Tender Document by any party does not confer or constitute any right of association with UNIVERSITY OF JAMMU.

13. Scanned copy of earnest money amounting to Rs.200000/- The EMD amount of unsuccessful bidders shall be returned without interest after finalization of the tender and that of the successful bidder's EMD be kept with the University and returned after receiving the Performance Security.

14. The Bidder should have office at UT of J&K.

15. The successful bidders should furnish interest free performance security for (05 % of bid value) in favour of Director,CDOE University of Jammu. Validity of the performance security deposit must be kept as 60 Months + 2 (two) months.

16. The bidder must provide a clear and functional **Escalation Matrix** for Service Support, detailing the hierarchy of contact persons designations, direct telephone/mobile numbers, and email addresses.

Eligibility Criteria

ELIGIBILITY CRITERIA FOR TECHNICAL QUILIFICATION OF THE BIDDER(S)

Sl. No.	Eligibility Criteria	Documents
1	Minimum average turnover of Rupees 50 Lakh for the last three financial years i.e**., 2023-24, 2024-25 & 2025-26** Turnover must be individual company turnover and not of any group of companies.	Copy of the Audited Balance Sheet and Certificate of the Chartered Accountant specifying turnover for the last three financial years
2	The bidder must be authorized by OEMs (Original Equipment Manufacturers) of the quoted active/passive components.	Bid Specific MAF from OEM
3	The bidder must have successfully executed at least **three (03)** similar networking projects (wired and/or wireless) in **Government / PSU / Educational** sectors in the last **five (05) years**.	Work Orders / Completion Certificates / Pe
4	All products offered (Active) must be new, genuine, and covered under OEM warranty for a minimum of 5 years.	OEM Warranty Letter
5	The bidder must not have been **blacklisted or debarred** by any Government department/organization.	Self-declaration on letterhead.
6	Bid Security / EMD	EMD of ₹ 200000/- in favour of Director, Centre For

		Distance & Online Education, University of Jammu, payable at Jammu
7	Electronic Performance Bank Guarantee (EPBG)	EPBG of (₹ 05 % of Bid value) in favour of Director, Centre For Distance & Online Education, University of Jammu, payable at Jammu
8	The OEM of Passive components (Copper & Fiber) is required to provide the Performance warranty of offered products for minimum 25 years from the date of commissioning	**(declaration should be submitted on OEM letterhead).**
9	Site survey of all designated locations	**Attach a copy of Report**

Bids fulfill following Technical Eligibility Criteria shall be eligible for Financial Evaluation:

IMPORTANT NOTE:

CDOE-JU reserves the right to examine the details furnished by the Bidder(s). The Financial Bids of only those Bidder(s), who qualify minimum eligibility criteria and fulfilling terms and conditions specified in technical bid will be opened. CDOE-JU reserves the right to reject the Tender without assigning any reason thereof.

Scope of Work – Structured Cabling & Networking

1. Submission of Network Design and Layout Plan

1.1 The Bidder shall prepare and submit a comprehensive **network design and layout plan** prior to commencement of work. The design shall clearly indicate:

- Complete **route of UTP cable laying**
- Exact **location of all I/O (Information Outlet) points**
- Placement and identification of **network switches**
- Rack locations and interconnection details
- Floor-wise/building-wise layout plan

1.2 The layout plan shall be submitted in **proper drawing format** (AutoCAD/PDF), with clear labelling, legends, cable numbering, and switch mapping.

1.3 The bidder shall commence the work only after written approval of the submitted drawing

1.4 Any corrections suggested by the Director, CDOE must be incorporated and resubmitted **without any additional cost**.

2. **Cabling, Laying and Installation Work**

2.1 The bidder shall carry out UTP cabling using proper pathways (conduits, raceways, cable trays, casing-capping, etc.) as per site requirements.

2.2 Cable laying shall be carried out in a neat, concealed, and professional manner, ensuring minimum bending radius and avoiding physical/electrical hazards.

2.3 Proper separation from electrical lines and other services must be maintained.

2.4 All cable routes shall follow the approved layout; any deviation must be pre-approved by the Directorate.

3**. Supply of Material and their Specifications**

3.1 All UTP cables shall be of **Cat-6 / Cat-6A** (as specified) and from approved brands only.

3.2 I/O ports, faceplates, back boxes, patch panels, and patch cords shall be of the same OEM to ensure end-to-end compatibility.

3.3 Supply of Network switches shall comply with the technical specifications provided in the tender (Layer-2/Layer-3, port count, uplink ports, etc.).

3.4 All materials supplied shall be new, original, and comply with international standards (ANSI/TIA/EIA, ISO/IEC).

4. Execution and Workmanship

4.1 All installation work shall be performed by **qualified and trained technical personnel**.

4.2 Cable dressing, tagging, and labelling must be carried out at both ends (I/O and Patch Panel).

4.3 Punching and termination shall be done as per **TIA/EIA-568A/B standards**.

4.4 Each cable run must be through a **single length** without joints/splicing, unless unavoidable and approved.

5. Documentation and As-Built Drawings

5.1 The bidder shall submit a complete documentation package after completion of work, including:

- As-built layout plans (AutoCAD/PDF)
- Floor-wise I/O numbering list
- Switch port mapping
- Cable routing diagrams
- Fluke test reports
- Bill of materials used
- Warranty certificates and OEM compliance documents

5.2 The final layout drawing must match the actual completed installation.

6. Handover and Acceptance

6.1 The system will be accepted only after verification of:

- Physical inspection
- Compliance with approved layout
- Successful testing and certification
- Submission of documentation
- IP Address Allocation Sheet
- Device Inventory List with Serial Numbers
- OFC route maps and patch panel mappings
- Testing reports (LAN and OFC)
- Penta scanning of LAN

- OEM Warranty Certificates and Product Datasheets
- Configuration Backups

6.2 The bidder shall provide on-site demonstration before final handover.

Major Components of the Scope

A. Passive Network Infrastructure

1. **LAN Cabling Work**
2. **Fibre Backbone Cabling**
3. **Network Racks and Accessories**

Active Network Components

1. **Switches**

    - Supply, installation, and configuration Access Layer Switches (L2 Managed PoE based on location).
    - Features such as VLAN support, Layer 2/3 forwarding, QoS, SNMP, STP, IGMP Snooping, etc., must be enabled/configured.

2. **Wireless Infrastructure**

    - Supply, configuration and installation of indoor enterprise-grade Wi-Fi 6/6E Access Points.

3. **Power Requirements**

    - Installation and testing of Poe-enabled switches.
    - Proper electrical earthing and UPS connectivity to all switches.

4. Support & Maintenance

- The successful bidder shall provide **on-site support** during installation and testing phase.
- Free technical support for **1-year post-installation** is required.
- All active components must carry a **minimum 5 years OEM warranty**.

Mandatory Site Assessment

Before quoting the rates, the bidder must carry out a comprehensive site survey of all designated locations. The bidder shall verify the number of LAN points, cable lengths, conduit requirements, and quantities of active and passive components as listed in the BOQ. Only after this assessment shall the bidder submit the final rates. Any deviation due to non-verification of the site shall be the sole responsibility of the bidder.

No claim for additional payment shall be entertained later on the grounds of incorrect quantity estimation due to failure to conduct a proper site survey.

Site Survey Declaration Shall be submitted on Bidder's Letterhead as per Annexure-C

Technical Specifications

Annexure-A

S No.	Specification - 24 Port POE RJ45 Switch	Compliance (Y/N)
1	**Hardware Specfications**	
1.1	Device should have 24* 100M/1G RJ45 Ports and 4x 1/10G or better Uplink Ports in 1 RU fixed Form Factor	
1.2	Device should have total Throughput of 128 Gbps.	
1.3	Device should support copper Base-T (1G) connectivity over CAT6 cable and 1G, Dual rate 1G/10G SFP+ fiber connectivity over MM and SM cable for the Uplink ports.	
1.4	Device should support upto 32K MAC address, 8K IPv4 and 2k IPv6 routes simultaneously	
1.5	Device should support upto	
1.6	Device should have 1G management port, USB port and console port	
1.7	The switch should support minimum of 30W (802.11at) on all 24 ports	
1.8	Should have a PoE power budget of 380W or more	
2	**L2 features**	
2.1	Device should support 4K VLANs, 9K Jumbo frame	
2.2	Device should support MST, per-vlan, RSTP, BPDU Guard, Loop Guard	
2.3	Device support LLDP and LACP to bundle links and detect miscabling issues.	
2.4	Device Should support IEEE 802.1D, 802.1Q, 802.1w, 802.1s, 802.3x and 802.1x and Q-in-Q	
2.5	Switch Should support BFD inclusive of BFD for Lag links, Multi-hop BFD and BFD on IP unnumbered interfaces.	
3	**L3 features**	
3.1	Device should support Routing Protocols: OSPFv2 with multiple instances, ISIS, OSPFv3, BGP,MP-BGP, RIPv2, BFD, Accumulated IGP Metric (AIGP), BGP Monitoring Protocol (BMP) and BGP Prefix Origin Validation with Resource Public Key Infrastructure (RPKI)	
3.2	Device should support IGMP v2/v3,PIM-SM, Anycast RP (RFC 4610)	
3.3	Device Should support 16-way ECMP, VRRP V4 and V6 and must be IPv6 ready.	
3.4	Device should support VxLAN+EVPN from Day 1	
3.5	VxLAN+EVPN should be deployed on IEEE Open Architecture	
4	**High availbility**	
4.1	Device should have N+1 redundant Fans & N + 1 redundant power supply	
5	**Security**	
5.1	Should support Storm control and Control Plane protection (CPP), ACL with l2, L3 and L4 parameters upto 2K ACLs	
5.2	Device should support IEEE 802.1x Authentication framework, MAC authentication, Dynamic VLAN assignment, named VLAN assignment and priority between 802.1x and Mac based authentication	
6	**Managment**	

6.1	Device Should support secure Zero touch provisioning with options to provision Certificates artifacts on the device when it boots.	
6.2	Should support real time state streaming telemetry for advance monitoring from day 1	
6.3	Should Support industry standard heirarchical CLI, SSHv2, HTTPS, SCP, SFTP, CLI task scheduler and configuration session.	
6.4	Should support NTP, PTP, PFC & ECN	
6.5	should support SNMP v1/2/3 and OpenConfig model over gRPC/Netconf	
6.6	Device should support real time data collection with sflow/netflow	
6.7	Should support recording changes in hardware resource tables like MAC table, Multicast Table, ARP table, IPv6 neighbor table, IPv4 route table, IPv6 route table, etc for troubleshooting & monitoring purpose	
7	**Automation & Visibility**	
7.1	Device should support multiple simultaneous mirroring sessions across all ports.	
7.2	Should have programability and automation support with on board python and bash	
7.3	Solution should be provided for centralized administration/Management/Control of Switches. Solution should support real-time Telemetry function where in it should receive telemetry information from the switches.	
7.4	Visibility & Automation: All Switches & Routers should be from same OEM and should be provided along with software for unified monitoring, provisioning and telemetry solution from the same OEM. Should support telemetry with time-series database view, traffic flow analytics, PSIRT/BUG visibility, configuration compliance, Multicast Table, endpoint tracking, POAP/ZTP, device resource utilization, auto topology view, alerts. SI will factor required VM's to install the software or on MEITY approved Cloud, if any OEM wants to supply their Appliance they allowed to in HA Cluster	
7.5	Should support 8 queues per port, priority queue	
7.6	Should support Weighted Fair Queue or Weighted round robin or equivelent	
7.7	Should suppprt ACL based based classification for QoS, rate limiting fuction like policing and shaping	
8	**Others**	
8.1	The Device should be IE, EN, ROHS certified with ISO certificate and Device should be published on Trusted Telecom Portal along with approved by TEC & MCTCE	
8.2	Hardware replacement warrenty and TAC support should be directly from the OEM. OEM email-id and India Contact support no. to be provided. The Switching System shall be quoted with 5 years OEM Hardware warranty along with OEM web based / telephonic technical Support. The same shall be verifiable on OEMs website. All asked feature lic should be supplied from Day 1. Hardware & Software Support 60 months.	
8.3	OEM & Bidder shouldn't be from a country which shares a land border with India and Hardware shouldn't be Manufacutured & Assembled from a country which shares a land border with India. Same should be be declared in MAF.	
8.4	All Network Switches & AP quoted Models should have support life of 6 years minimum from the Date of delivery at Site, same need to be confirmed in signed MAF.	
8.5	Manufacturer Authorization is Required. Specification mentioned are minimum and any OEM/SI can quote higher specifications.	
8.6	All Network Switches as part of this Tender should be able to viewed in Single Dashboard.	

8.7	All Network switches and AP should from Same OEM, for better support and no compatibility issue comeup at later stage	
8.8	All Network Switches should run on same OS for simplified operations.	

	48 Port Multi-gig Switch Technical Specs	
S No.	**Minimum Technical Specifications for 48 Port Multi-Gig PoE Switch**	**Compliance Y/N**
1	Hardware Specifications	
1.1	Device should have 40* 1/2.5G RJ45 PoE+ and 8 x1G/2.5G/5G POE++ Ports and 4x 1/10G/25G with additional Port of 2x100G or better Uplink Ports in 1 RU fixed Form Factor populated with 4x 10G LR SFP from same OEM, 2x 10G 5 Meter DAC Cable from same OEM	
1.2	Device should have total Throughput of 800 Gbps.	
1.3	Device should support upto 64K MAC address	
1.4	Device should support upto 16K IPv4 and 8K IPv6 routes simultaneously	
1.5	Device should have 1G management port, USB port and console port	
1.6	The switch should support minimum of 30W (802.11at) on all the ports	
2	L2 features	
2.1	Device should support 4K VLANs, 9K Jumbo frame	
2.2	Device should support MST, per-vlan, RSTP, BPDU Guard, Loop Guard	
2.3	Device support LLDP and LACP to bundle links and detect miscabling issues.	
2.4	Device Should support IEEE 802.1D, 802.1Q, 802.1w, 802.1s, 802.3x and 802.1x and Q-in-Q	
2.5	Switch Should support BFD inclusive of BFD for Lag links, Multi-hop BFD and BFD on IP unnumbered interfaces.	
3	L3 features	
3.1	Device should support Routing Protocols: OSPFv2 with multiple instances, ISIS, OSPFv3, BGP,MP-BGP, RIPv2, BFD	
3.2	Device should support IGMP v2/v3, PIM-SM, Anycast RP (RFC 4610)	
3.3	Device Should support 16-way ECMP, VRRP V4 and V6 and must be IPv6 ready.	
3.4	Device should support VxLAN+EVPN from Day 1	
3.5	VxLAN+EVPN should be deployed on IEEE Open Architecture	
4	High availability	
4.1	Device should have N+1 redundant Fans & N + 1 redundant power supply	
5	Security	
5.1	Should support Storm control and Control Plane protection (CPP), ACL with l2, L3 and L4 parameters upto 2K ACLs	
5.2	Device should support IEEE 802.1x Authentication framework, MAC authentication, Dynamic VLAN assignment, named VLAN assignment and priority between 802.1x and Mac based authentication	
6	Management	
6.1	Device Should support secure Zero touch provisioning with options to provision Certificates artifacts on the device when it boots.	
6.2	Should support real time state streaming telemetry for advance monitoring from day 1	
6.3	Should Support industry standard hierarchical CLI, SSHv2, HTTPS, SCP, SFTP, CLI task scheduler and configuration session.	
6.4	Should support NTP, PTP, PFC & ECN	
6.5	should support SNMP v1/2/3 and OpenConfig model over gRPC/Netconf	
6.6	Device should support real time data collection with sflow/netflow	
6.7	Should support recording changes in hardware resource tables like MAC table, Multicast Table, ARP table, IPv6 neighbor table, IPv4 route table, IPv6 route table, etc for troubleshooting & monitoring purpose	

7	Automation & Visibility	
7.1	Device should support multiple simultaneous mirroring sessions across all ports.	
7.2	Should have programmability and automation support with on board python and bash	
7.3	Solution should be provided for centralized administration/Management/Control of Switches. Solution should support real-time Telemetry function where in it should receive telemetry information from the switches. The switches shall be integrated with existing Dashboard. The OEM has to provide support to migrate existing DCA 200 CV to the servers required in this Bid.The existing switches should also be visible on the server along with new switches.	
7.4	Visibility & Automation: All Switches should be from same OEM and should be provided along with software for unified monitoring, Multicast Table, provisioning and telemetry solution from the same OEM. Should support telemetry with time-series database view, traffic flow analytics, PSIRT/BUG visibility, configuration compliance, endpoint tracking, POAP/ZTP, device resource utilization, auto topology view, alerts. SI/OEM will factor required VM's to install the software . In Future in case if department needs to move to cloud from onPrem ,same lic can be used and all features asked in specification need to be supported. (No new order for migration will be provided by department). Confirmation same need to be submitted as part of signed MAF.	

Wi-Fi Access Points

S. No.	Technical Specification	Compliance (Yes/No)
1	Wi-Fi AP devices and the solution must support the following protocols: IEEE 802.11a/b/g, IEEE 802.11n, IEEE 802.11ac (WAVE 2), IEEE 802.11ax, IEEE 802.11be, IEEE 802.11d, 802.11i, 802.11 r/k/v	
2	The AP must support the following authentication methods: WPA/WPA2-AES, PSK, authentication and AES encryption and 802.1x/EAP and unauthenticated (open) mode, Radius CoA.	
3	All proposed wireless access points and network switches shall seamlessly integrate with the customer's existing wireless controller and centralized network management platform, enabling unified provisioning, configuration, monitoring, and management without requiring a separate management platform.	
4	The AP must Support WPA3 , WPA3 Transition Mode, OWE and OWE transition Mode. The AP must support WPA3 Enterprise 192-bit encryption	
5	Wi-Fi APs and the system should have ability to set SSIDs as bridge or NAT. Wi-Fi APs and the system should have support for 802.1Q VLANs.	
6	APs shall support Hotspot 2.0 (802.11u)	
7	The device must be capable of providing Wi-Fi access with wireless intrusion prevention (WIPS) in a single device both operating simultaneously.	
8	The device should be remotely upgradeable from the controller, so that new features / upgrades can be added.	
9	All Wi-Fi, WIDS, WIPS, Client Seamless Roaming & RRM (Radio resource management) services should be functional if the link between AP and its management controller goes down. It must also be possible to onboard new clients in such a scenario.	
10	Wi-Fi AP device should support dual stack for IPV4 and IPV6.	

11	AP should support IPSec tunneling feature which should be Hardware accelerated to provide optimal performance.	
12	AP should be able to tunnel traffic to remote location without the need of controller using protocols like VxLAN/EoGRE/L2TP	
13	The AP must be capable of receiving IP address via DHCP for IPv4/IPv6 and SLAAC for IPv6.	
14	AP Should support 1 X 5G Ethernet Ports	
15	AP must support minimum 2x2:2 antenna configuration in 5GHz, 2x2:2 antenna configuration in 6GHz and 2x2:2 configuration in 2.4GHz band.	
16	AP must support WiFi 7 4K QAM, 320Mhz Channels in 6GHz for low latency applications.	
17	AP shall support minimum 688 Mbps on 2.4 GHz radio, 2.88 Gbps on 5GHz radio and 5.76 Gbps on 6GHz radio.	
18	The AP shall Support Integrated WIPS background wireless scanning and Rogue AP prevention.	
19	The AP shall support third party analytics integration for real-time data transfer.	
20	The AP shall support integrated firewall, traffic shaping, QoS and BYOD controls per SSID.	
21	The AP shall support wired VLAN monitoring for extended rogue AP detection.	
22	AP should support integration with cloud-based in a MEITY approved cloud and standalone on-premises controller.	
23	The proposed product country of origin should be made in India. AP should be certified by the FCC, CE and RoHS. Device OEM must be ISO 9001 & 14001 Certified at the time of bidding.	
24	AP should support detection of various threats such as Rogue, Honeypot, Neighbor, AP Impersonation, Denial of Service(DoS) attacks such as Disassociation flood, Disassociation broadcast, RTS/CTS flood, EAPOL log off, Association flood and should be able differentiate these from authorized access points with precision. Detection should not rely on signatures of these attackers to accurately identify the threats. The AP should be able to do location tracking of all WIPS detected APs and clients.	
25	AP should be able to do wired prevention of WIPS, without any proprietary integration with the wired switch, therefore it should work on switches from all OEMs	
26	Hardware replacement warrenty and TAC support should be directly from the OEM. OEM email-id and India Contact support no. to be provided.	
27	OEM & Bidder shouldn't be from a country which shares a land border with India and Hardware shouldn't be Manufacutured & Assembled from a country which shares a land border with India. Same should be be declared in MAF.	
28	AP should support automatic whitelisting of unmanaged/unknown APs which are connected to the enterprise network based on the authorized security policies defined.	
29	Manufacturer Authorization is Required. Specification mentioned are minimum and any OEM/SI can quote higher specifications.	

S.no	**Cat 6A, 4 Pair unshielded U/UTP Cable**	Compliance (Y/N)
1	Cable should be Cat 6A U/UTP	
2	Conductor should be 23 AWG Solid bare Copper	

3	Conductor Insulation should be of Polyethylene	
4	Cat 6 U/UTP cable should be inline with IEEE 802.3an: 10Base-T; 100Base-TX; 1000Base-T;10G BaseT , IEEE 802.3af ,IEEE 802.3at ,IEEE 802.3bt	
5	Cable Sheath should be of Low Smoke Zero Halogen Material .	
6	Unshielded Category 6A cabling system should be verified by ISO 17025 certified laboratory for three Connector Permanent Link as per electrical performance requirements of edition 1.0 of ISO/IEC 11801-1:2017 and ANSI/TIA-568.2-D:2018.	

S.no	**UNSHIELDED CAT 6A INFORMATION OUTLET (PANEL AND FACE PLATE SIDE)**	**Compliance Y/N**
1	Information outlet should be Cat 6A, unshielded with Reliable insulation displacement contacting (IDC) and dust cover	
2	Information outlet should Supports PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PpoE (IEEE 802.3bt) and should be compliant to IEC 60512-99-001/002	
3	Module should be Suitable for 10 GBASE-T applications	
4	Each module should have a Label with colour wiring chart	
5	Should have Gold gold-plated bronze contacts with durability of minimum 750 mating cycles	
6	Material Should be Halogen-free materials	
7	Patch Panel Side Module should have option for colour coding clip to make it easy to differentiate different services.	
8	Unshielded Category 6A cabling system should be verified by ISO 17025 certified laboratorySuch as ETL/GHMT/3P as per electrical performance requirements of edition 1.0 of ISO/IEC 11801-1:2017 and ANSI/TIA-568.2-D:2018.	
	24 PORT JACK PANEL UNLOADED	**Compliance Y/N**
1	Patch panel ports should have option for visual colour coding.	
2	Should be made of chromatized steel (blue)	
3	Jack panel should be UL listed	
4	Each port / jack on the panel should be individually removable on field from the panel.	
5	Should have integrated rear cable management shelf.	
	MOUNTING CORDS – CAT 6A UTP	**Compliance Y/N**
1	Patch cord should be U/UTP, 4 x 2 x AWG 26/7 or better	
2	Patch should be mounted on both sides with RJ45 connector in line with Cat. 6A standards.	
3	Patch cord should be terminated using insulation displacement contacting (IDC) according to IEC 60352-3	
4	Patch cord plug contact should be of Bronze (CuSn6) with 0.7 µm of gold plating	
5	Plug shield material should be Tin plated brass	
6	Dielectric Withstanding Voltage 1000 VDC	
7	Patch cord Should Supports PoE (IEEE 802.3af), PoEP (IEEE 802.3at), 4PpoE (IEEE 802.3bt) and is compatible to IEC 60512-99-001/002	
8	Sheath Should be Low Smoke Zero Halogen	

9	Performance of Cat 6A U/UTP Patch cord should be independently verified by ISO 17025 certified laboratory such as (ETL/GHMT/3P) as per electrical performance requirements defined by edition 1.0 of ISO/IEC 11801-1:2017and ANSI/TIA-568.2-D:2018 along with IEC 61935-2:2010 . S	
10	Patch Cords should be available in Five Different colours and different colour to be used for different services	

	LIU 6 Port Rack Mountable 19'' Loaded with LC Duplex adaptors, Pigtails and Splice holders	**Compliance Y/N**
1	Metal sliding style Loaded as per design for 12/24/48 Fiber with Easily removable Top plate with push buttons	
2	6 Port LC type 1U	
3	Should include Single Mode OS2 or Multi Mode OM4 pigtails and adaptors as per design and BOQ.	
4	Tray Material should be ABS	
5	Adaptors in LIU should be UL listed	
6	Adaptors should have integral self-closing metal laser protection flaps and semi-transparent plastic dust covers which allows optical testing with test lasers without removing the covers	
7	Should have option for Visual coding, mechanical coding, and lock protection.	
	Patch Cord LC – LC MM 3 meter	**Compliance Y/N**
1	Patch Cord Should be Multi Mode OM3	
2	Type of Connector LC-LC	
3	Jacket Material: FRLSZH	
4	Should have option for Visual coding, mechanical coding and lock protection for security purpose .	
	FIBER CABLE OUTDOOR 6/ CORE MM	**Compliance Y/N**
1	Cable Should be as per ISO/IEC 11801:2002; Uni-tube Armoured with ECCS tape of 0.150 mm	
2	Type :Multimode OM3	
3	Cable Jacket material : 1.8 mm LSZH	
4	Minimum Cores 6 /12 as per BOQ	
56	Cable overall diameter 8.5 ± 1.0 mm	
	Tensile Strength 800N and crush resistance 2000N	

42U NETWORK RACK (FULLY LOADED)

Sr No.	Network Rack Technical Specifications	Compliance y/n
1	42U Network rack with dimension (HWD) 2000mm X 800mm X 1200mm respectively with Unique key	
2	The design of the rack should be in accordance with the following agency standards or certifications. EIA-310 standard for IT rail hole spacing. Rack should must comply CE, UL & RoHs standards	
3	Rack frame should be minimum 9 times folded & and all the sheet metal components of the rack should be powder coated black color, RAL 7021 (80 - 120 MICRONS).	
4	All rack components door, side panel, top panel, 19" rail, PDU bracket shall be directly grounded to the frame to eliminate any external grounding wire and frame must have provision of grounding points to ground each rack to the building ground.	
5	All 19" rails should be 3 times folded with 2mm thickness for maximum rigidity and must have EIA-310 standard hole-mounting pattern with U marking on front and rear of each rail for ease of installation & depth marking for ease of EIA rail installation.	
6	Single front and split rear doors should be min 75% hexagonal perforated. Both the front and rear doors should be designed with quick release hinges allowing for quick and easy detachment with/without the use of tools. The front door of unit should be reversible so that it may open from either side.	
7	Doors shall be tool-less lift off and field reversible design and must allow 135º door opening for ease during maintenance activity.	
8	EIA rails two sets should be fully depth adjustable within 980mm use space area .19" Rails should accept tool less cable management Accessories.	
9	Two full height, multiple standard hole pattern for tool less accessories mounting should be part of the rack, which should have capability to hold two Rack PDUs each. Minimum 4 Nos. Horizontal & 2 No. Vertical cable manager is to be considered for sorting out cables.	
10	Rack frame shall support at least 1600kgs static weight load & dynamic load up to 1000 kg	
11	The Rack should have Front Single, Rear Split Perforated Door, Levelling Feet & Castors, Side Panels, Bottom Panel	
12	Rack should have side panels with slam latch for quick and easy installation and maintenance, single person removal and installation eliminate the manpower dependencies.	
13	The roof of the racks should be removable from the interior of the enclosure with/without tools and should have cable entry holes to allow up to 1800 cables or 60A PDU plug.	

14	Rack shall have the necessary hardware accessories (30 each M6 cage nuts and screws), Cage nut installation tool, plastic gland plates (tool less removable) for top panel cable entry).	
15	Rack must be supplied with minimum 10 nos. of tool-less plastic blanking panels to avoid air re circulation & Every Rack should be supplied with a proper Air Sealing kit (FR Rated for Side) to prevent air leakage	
16	2 numbers 7.3 KW, 32A, Single phase Unit level monitored iPDU with minimum 36 hybrid (C13/C19) sockets each and power/facility cord, with ability to monitor power consumption at strip level. iPDU should have lowest power consumption, less than 10W on idle.	
17	Rack & accessories must be covered by default warranty of 2 Years & any additional warranty may be considered based on requirement	

15U WALL-MOUNT NETWORK RACK (FULLY LOADED)

S.No.	Network Rack Technical Specifications		Compliance y/N
1	Rack type	Wall-mountable enclosed network rack, 15U capacity.	
2	Rack standard	Standard 19-inch equipment mounting, conforming to EIA/ECA-310 or equivalent.	
3	Dimensions	Approx. 550–600 mm (W) × 500–600 mm (D); height as per 15U design.	
4	Construction	Heavy-duty CRCA mild-steel sheet, welded or equivalent rigid construction.	
5	Mounting rails	Minimum two pairs of adjustable 19-inch vertical mounting rails with U-position markings.	
6	Front door	Lockable toughened-glass front door with key.	
7	Side panels	Fixed or removable steel side panels.	
8	Cable entry	Cable-entry openings at top and bottom with suitable edge protection.	
9	Ventilation	Ventilated top/bottom or suitable airflow provisions, with fan-mounting provision.	
10	Cooling fan	Minimum one 230 V AC fan assembly with protective grill.	
11	Power distribution unit (PDU)	Minimum one 6-socket rack-mount PDU, suitable for 230 V AC, with appropriate current rating and overload protection.	
12	Cable management	Minimum two 1U horizontal cable managers.	
13	Equipment shelf	One fixed or cantilever shelf, compatible with the rack depth.	
14	Mounting hardware	Complete set of M6 cage nuts, screws and washers; minimum 20 sets.	
15	Earthing	Rack earthing/bonding provision with earthing stud and bonding accessories.	
16	Finish	Corrosion-resistant powder-coated finish, grey, black or equivalent.	
17	Load capacity	Minimum 40 kg static load capacity, subject to suitable wall construction and mounting arrangement.	

18	Installation accessories	Wall-mounting brackets, suitable fasteners and all necessary assembly accessories.	
19	Compatibility	Suitable for network switches, patch panels, fibre termination boxes, cable managers and other standard 19-inch equipment.	
20	Warranty	Minimum 3-year warranty against manufacturing defects.	

Service / Deliverables Description:

The vendor should deliver the products as per the features mentioned above. The delivery service includes following:

i. Installation of all the equipment and integration with existing network.

ii. 24x7 Helpdesk support;Upgradation of patches and product version during the support period

Annexure B

Details of equipment: BOQ

Sl. No.	Equipment Description	Quantity (approx.) LAN points has been increased needs updation	Compliance Yes/No
1	Wi-Fi Access points	**41**	
2	Cat 6A Information Outlet (I/O, Faceplate with Back box and other accessories)	**250**	
3	24-Port-PoE-Switch	**7**	
4	48-Port- PoE-Switch	**2**	
5	Wall mount Network Rack Fully loaded 15 U	**4**	
6	Cat 6A LSZH LAN Cable in mtr	**18000mtr**	
7	Single mode LC-LC fiber patch cable	**4**	
8	6 Core multimode mode OFC fiber cable	**200 mtr**	
9	MultiMode -SFP Plus Modules	**2**	
10	ISI marked PVC conduit Pipe with necessary accessories with steel clamps to complete the	**8000mtr**	

	job- 32 mm		
11	ISI marked PVC conduit Pipe with necessary accessories with steel clamps to complete the job-20 mm	**3000mtr**	
12	Cat 6A Low Smoke Zero halogen -LSZH patch cord -1mtrs	**300**	
13	Cat 6A Low Smoke Zero halogen -LSZH patch cord - 3mtrs	**250**	
14	24 port fully loaded Modular, straight UTP Cat-6A Jack Panel with necessary accessories to complete the job	**15**	
15	6port OFC LIU Fully loaded with necessary accessories to complete the job(Rack based)	**2**	
16	42U NETWORK RACK (FULLY LOADED)	**1**	
17	Installation charges including Crimping, Punching, Cable laying, termination, testing of all nodes, OFC cable laying(overhead), Mounting and Configuration of Switches etc. charges	**1**	

Support & Maintenance

- The successful bidder shall provide **on-site support** during installation and testing phase.
- Free technical support for **1-year post-installation** is required.
- All active components must carry a **minimum 5 years OEM warranty**.

Annexure-C

Site Survey Declaration (To be submitted on Bidder's Letterhead)

To

The Director

Centre for Distance & Online Education,

University of Jammu,

Jammu.

Subject: Declaration of Site Survey and BOQ Verification

Sir,

This is to certify that we, M/s _____, have conducted a detailed physical site survey of all the locations mentioned in the tender for _____ We have verified the quantities mentioned in the BOQ, including LAN cables, conduits, network switches, racks, and all other active and passive components. Based on the site conditions and verified quantities, we shall quote the final rates in our financial bid.

We understand that no additional claims shall be entertained later for variations arising due to non-verification of the site.

Authorized Signatory

Name: _____

Designation: _____

Date: _____

Seal of the Firm