

CPP Tender ID: 2026_NIFT_895855_1

Title: Supply and Installation of Indoor Wi-Fi Access Points

Amendment/Corrigendum is as follows:

- 1) Total no. of Wi-fi access points to be read as - 40 nos.
- 2) Delivery, Installation and Commissioning period to be read as 08-weeks (as per the ATC of the bid)



राष्ट्रीय फैशन प्रौद्योगिकी संस्थान

संविधिक संस्थान निफ्ट अधिनियम 2006, द्वारा शासित और
वस्त्र मंत्रालय, भारत सरकार द्वारा स्थापित

National Institute of Fashion Technology

A Statutory Institute under the NIFT Act 2006 and
Set up by the Ministry of Textiles, Government of India



NATIONAL INSTITUTE OF FASHION TECHNOLOGY, HYDERABAD

(A Statutory Body governed by the NIFT Act 2006 &
Set up by Ministry of Textile, Govt. of India)

e-TENDER for

***“Supply & Installation of Indoor Wi-Fi Access Points, 24 POE+ Managed Network L2
Switch and Layer 2 Network Switch at NIFT Hyderabad Campus”***

OPENING DATE FOR ONLINE SUBMISSION OF TENDER	28.01.2026
EMD	Rs.1,00,000/-
MSME / STARTUPS EXEMPTION FOR EMD, TURNOVER & EXPERIENCE	YES
CLOSING DATE FOR ONLINE SUBMISSION OF TENDER	17.02.2026
DATE FOR OPENING OF TENDERS (TECHNICAL BID)	18.02.2026
DATE AND TIME FOR OPENING FINANCIAL BIDS	Will be notified to the technically qualified bidders through online

Note: This document contains 19 pages (total no. of pages including Annexures) and bidders are requested to sign on all the pages.



INTRODUCTION

National Institute of Fashion Technology, Ministry of Textiles, Government of India, is a premier Institute of Design, Technology & Management with 19 campuses located across the country. NIFT Hyderabad is located at Madhapur, Opp. Cyber Towers, Cyberabad, Hyderabad-500081, Telangana.

e-TENDER NOTICE

NIFT Hyderabad invites online tender under two bid systems for **“Supply & Installation of Indoor Wi-Fi Access Points, 24 POE+ Managed Network L2 Switch and Layer 2 Network Switch at NIFT Hyderabad campus”** from eligible reputed Firms / Agencies having at least 03 (three) years of work experience in executing similar kind of supply/work in Central / State Govt. Departments / PSUs / MNCs / Reputed Academic Institutes / Organizations.

The interested firms should submit their tender on Central Public Procurement (CPP) Portal (URL:<http://eprocure.gov.in/eprocure/app>). Tender document is also available for viewing on the NIFT website at <http://www.nift.ac.in/hyderabad/tenders>.

Applications to this tender will be accepted only through the online mode through the Central Public Procurement (CPP) Portal (URL:<http://eprocure.gov.in/eprocure/app>). (Hardcopies of bids will not be accepted).

Complete set of Bidding Document may be downloaded from CPP Portal (URL:<http://eprocure.gov.in/eprocure/app>) and from NIFT website (URL: <http://nift.ac.in/hyderabad>). Corrigendum addendum, if any, shall be published only on the aforesaid website and separate communication in this regard will not be sent for the same to any individual.

Terms & Conditions:

1. Please read the terms & conditions carefully before filling up the document. Incomplete tender documents will be rejected.
2. Conditional or offline bid will not be accepted or the condition(s) may not be considered.



3. The bidder shall furnish **EMD of Rs.1,00,000 (Rupees One lakh only)** in favour of NIFT payable at Hyderabad in the form of demand draft / RTGS from any bank as earnest money deposit (EMD). The bank details of NIFT Hyderabad Campus are mentioned below:

NIFT General

Account No.527602050000108

IFSC Code. UBIN0552763

Bank Name: Union Bank of India, Jubilee Hills, Hyderabad – 500 081. TELANGANA

4. Bids without paying the EMD / without valid exemption certificate shall be DISQUALIFIED.
5. The Micro and Small-scale industrial units registered under small scale industries of Appropriate State Government and holding subsequent registration with NSCI/DGS&D registration certificates for the item under tender will be eligible for exemption from payment of EMD on submission of duly attested copies of their SSI (SSI/MSME Part-II/Udyog Aadhar memorandum) & NSCI/DGS&D registration certificate in EMD cover.
6. EMD of the unsuccessful bidders will be returned within days from the date of award to the successful bidder.
7. The Financial Bids of technically qualified bidder only will be opened.
8. Even after qualifying in technical bid, the financial bid may not be accepted if found not in order.
9. The tenderer must have at least 3years of experience in the relevant field and execution of similar kind of supply / work in the in Central / State Govt. Departments / PSUs / MNCs / Reputed Academic Institutes / Organizations. However, MSE /Start-ups are exempted against valid certificate.
10. In case if L-1 is more than one, the selection criteria would be at the discretion of NIFT. The decision of NIFT, in this regard and for selection of successful bidder in such situation, will be final in all respect and will be binding on all the tenderers. Preference will be given to the other factors, viz. previous experience, quality of service, number of clients, yearly turnover, etc. to select the agency to award the work and the decision of NIFT in this regard and for selection of successful bidder will be final in all respect and will be binding on all the tenderers.
11. All Taxes & other charges, if any, should be mentioned clearly; otherwise, the rates will be treated as all inclusive.
12. Minimum average annual turnover during the last 03years, ending 31st March of the previous financial year should be at least Rs.100.00 lakhs in the similar supply/work each year. However, MSE /Start-ups are exempted against valid certificate.



13. **The bidder must have registered office / workshop / factory at consignee state (Telangana) before date of this bid. Proof of rental agreement cannot be considered as office at consignee state.**
14. **Experience criteria: Experience of having successfully completed similar supply / work during last 03years.**
15. Definition of “similar supply / work” should be clearly defined with specifications.
16. The successful bidder needs to deposit Security Money of 5% of the Supply Order value within 15 days through Demand Draft / BG / FDR in favor of NIFT Hyderabad which will be refunded / returned without any interest after one year from the date of completion of the work with deduction, if any and as applicable.
17. The supply and installation of indoor Wifi Access point s should be completed within 08 weeks from the date of receiving of Work Order failing which a penalty @ 0.5% of the order value per week will be imposed subject to a maximum of 10% of the Order value. However, delay due to any applicable / unforeseen reason, viz. natural calamity, non-availability of site etc., may / may not be considered as may be decided by NIFT Authorities.
18. All statutory obligations under various laws, imposed from time to time will be to be met by the agency / contractor for which no extra payment shall be made to him. NIFT will no way be responsible for any default with regard to statutory obligations if any.
19. The quotes should be valid for at least 120 days from the date of opening of the bid, however, for the successful bidder the rates will be valid till completion of the job.
20. No payment shall be made in advance. The payment shall be made after completion of the furniture and on the basis of certification by the concerned NIFT Official(s). TDS etc., if any and as applicable will be deducted during payment.
21. The quantity of items / work may vary and payment will be made based on the actual.
22. NIFT shall not provide any mode of transport in respect of men or material required by the contractor / agency for execution of the work.
23. Any query / clarification with respect to the bid (T&Cs, specification(s) etc.) may be cleared prior to submission of bid concerned NIFT official(s) may be contacted in this regard in between 10:00AM to 5:00PM on any working day 040-23114436 and for technical queries may contact the Computer Engineer @ 9000534800. NIFT will not entertain or clarify any such query during post bid.
24. The schedule issued with the form of bid listing the details of item to be executed must not be altered by the bidders. Any modifications / alterations of the schedule considered necessary by the bidder should be in a separate letter accompanying the bid.
25. The bid is liable to be rejected if complete information is not provided or if the particulars and data (if any) asked for in the schedule of the bid are not filled in correctly.
26. Bid shall be accompanied by the relevant documents including the following:
 - a) EMD Details / Valid MSE / Startup certificate for EMD exemption
 - b) Copy of GST Registration Certificate of the company / firm
 - c) Copy of PAN of the Company / firm



- d) Copy of Cancelled Cheque
- e) Annual Turnover / Valid MSE / Startup certificate
- f) Experience / Valid MSE / Startup certificate
- g) Proof of Local office / service centre Hyderabad

27. As per NIFT policy, payments and receipts of Government and Semi Government Agencies would be rounded off to the next higher rupee and in other cases the rounding off will be to nearest i.e. paisa 50 or above will be rounded off to the next higher rupee and paisa less than 50 will be ignored.
28. **The detailed specifications towards Supply and Installation of Indoor WiFi Access Points, 24 POE+ Managed Network L2 Switch and Layer 2 Network Switch have been provided at Annexure 'VI'.**
29. It is strongly recommended that the bidder should inspect the site any time during working hours on any working day, Monday to Friday 10.00 am to 5.00 pm and no extra shall be payable.
30. All bidders are expected to inspect the site prior to submission of the bid. Any bidder who does not attend the site inspection shall be deemed to have accepted all site conditions and constraints without exception. For non-awareness of the site conditions & constrains no extra shall be paid beyond the supply / work order.
31. Bidder must sign along with company seal on all the pages submitted with the bid document.

TECHNICAL RELATED CONDITIONS:

1. The Bid should be submitted **ONLY** by the **OEM or OEM Authorised Supplier**.
2. Manufacturers Authorization Letter Specific to this tender must be submitted. Tender submitted without MAF will be rejected.
3. Technical bid should contain all relevant technical details; printed technical leaflet of models quoted, URL of the product quoted and other details, which may be necessary to ensure that offer is complete in all, respect e.g. technical specification, delivery period, guarantee period, validity, etc. Failure to provide this information will result in disqualification, and no appeals will be entertained.
4. The product/equipment submitted by the bidder should not be end of life /end of support in the next 05-07 years from the date of successful installation, configuration and final acceptance by the user.
5. Bidder needs to provide complete technical details of the offered components. Only mentioning YES/NO in the compliance is not acceptable. Cross references to proper technical datasheets / spec sheet / website links need to be provided against each parameter for the quoted product.
6. The supplier must be capable of addressing onsite service issues within one to two days. The supplier will assume complete responsibility for the supplied product, including



transportation to and from the service centre, call lock, during the warranty service support period.

7. OEM should have a 3rd party AUDIT and certified by Cert-IN or equivalent standards.
8. The product quoted should have CMMi Level 3 & TEC/MTCTE certifications.
9. All quoted active networking products should be from single OEM.
10. All accessories required for installation and commissioning of the supplied Switches, Access Points, Wireless Controller and all Network Devices/Items to be provided by the bidder/OEM at their own cost. The bidder shall bear for any damage occurring during supply, installation, testing, commissioning & activation of network components, computer hardware etc. The same has to be rectified by the bidder/OEM at their own cost.
11. All the work shall be done in a conscientious manner as per the OEM guidelines and best industry practices. The system shall be subjected to inspection at various stages. The bidder shall follow all safety regulations and practices.
12. Bidder/OEM must provide free upgrade of software/firmware during warranty period.
13. The warranty period will start after the self-testing of the entire network as whole, and final acceptance and certification by NIFT Hyderabad.
14. The bidder will be liable for any hardware and software up-gradation for maintenance without any extra cost during the entire warranty period of 3 years.
15. The bidder should supply all required hardware and software to meet the technical specifications. Part bids will not be entertained.
16. Bidder/OEM should have Functional Technical Assistance/ Service Center in Telangana state to ensure immediate onsite support during any kind of Network related issue.
17. Local GST Registration Certificate of the Functional Technical Assistance/ Service Center in Telangana should be submitted along with the Offer/Bid.

All disputes are subject to Hyderabad jurisdiction only. NIFT reserves the right to accept or reject any or all the bids either fully or partly or may cancel the tender without assigning any reason.



Tender No.

Annexure - I

TO BE FILLED BY BIDDER

1.
 - a. Name of the bidder / organization _____
 - b. Name of the proprietor / partners _____
 - c. Date of Establishment _____
 - d. Please specify as to whether Bidder is sole Proprietor / Partnership firm / Private or Limited Company _____
2.
 - a. Address (Office) _____
 - b. Telephone No. _____
 - c. Mobile No. _____
 - d. Email ID _____

3. List of reputed clients:

S. No.	Client's Name	Contact Person	Contact Number (with email ID)	Remarks (if any)
1				
2				
3				

4. Furnish copies of the following documents: (Please ✓)

- h) EMD details
- ii) Copy of PAN (in the name of firm / agency or proprietor)
- iii) Copy of GST Registration Certificate
- iv) Document supporting yearly turnover (FY: 2022-23, 2023-24 and 2024-25)



v) ITR (FY: 2022-23, 2023-24 and 2024-25)

vi) Experience

vii) Bank Details (A/c. No., Bank name & branch, IFSC code)

viii) OEM Authorization Certificate

Note

1. Tenderer has to submit the entire set of tender papers duly signed while uploading in tender.
2. Additional paper to furnish the above information may be used.
3. In absence of audited turnover and ITR for the FY 2024-25 vendors can submit the documents for financial years 2021-22, 2022-2023, 2023-2024.



Tender No.

Annexure-II

TECHNICAL BID

for

“Supply & Installation of Indoor Wifi Access points, 24 POE+ Managed Network L2 Switch and Layer 2 Network Switch at NIFT Hyderabad campus”

S. No.	Particulars	Mention ‘Yes’ or ‘No’
1	Whether EMD of Rs.1,00,000/- attached	
2	Whether capable to deposit 5% of Work Order value as Security Money in form of DD / BG within 15days of receiving of Work Order	
3	Whether document in support of having minimum 03 (three) years’ experience in executing similar kind of supply / work along with a list of organizations (Govt., PSU, reputed MNCs / organizations) submitted	
4	Whether OEM Authorization Certificate attached	
5	Whether OEM attached AUDIT report certified by Cert-IN or equivalent standards and certifications mentioned in the specifications attached	
6	Whether copy of PAN card submitted	
7	Whether copy of GST Registration submitted	
8	Whether Bank details submitted	
9	Whether proof of MSME/ NSC / Startups registered under for exemption of EMD, experience and turnover submitted	
10	Proof of registered office / workshop / factory at consignee state (Telangana) before date of the this bid. Proof of rental agreement cannot be considered as office at consignee state.	
11	Proof of Pre-bid meeting attendance	
12	Whether minimum Annual turnover is Rs.50.00 lakhs per year during the last 03 (three) years (i.e. Financial year 2022-23, 2023-24 and 2024-25) (Please attach audited report Trading, P&L account and Balance sheet from authorized Chartered Accountant as proof)	
13	Whether copy of Income Tax Returns for last 03 (three) years submitted (i.e. Financial year 2022-23, 2023-24 and 2024-25)	
14	Whether agreed to abide by all the terms and conditions of this bid	
15	Whether all Annexures-I, II, III, IV and V duly filled and ‘undertaking has been submitted with Technical Bid	

All above enclosures must be valid.

Note – In absence of audited turnover and ITR for FY 2024-25 vendors can submit for the financial year 2021-22, 2022-2023, 2023-2024.



Hyderabad

Tender No.

Annexure-III

Declaration by the Bidder

This is to certify that I / We, before signing this bid have read and fully understood all the terms and conditions contained herein and undertake myself / ourselves to abide by them.

I / We hereby undertake that the information provided with this bid are true and the bid is liable to rejection if the same is found to be false or the information is found to have been suppressed by me / us.

(Signature of Bidder with seal)

Name :

Seal :

Address :

Phone No (O) :

Date :



Hyderabad

Tender No.

Annexure-IV

Bid Securing Declaration Form

Dated _____

To
The Director,
National Institute of Fashion Technology,
Opp. Cyber Towers,
Madhapur,
Hyderabad – 500 081.

I / We, on behalf of M/s. _____ the
undersigned declare that:

I / We understand that according to your conditions, bids must be supported by a Bid Securing Declaration.

I / We accept that I / We may be disqualified from bidding for any contract with you for a period of one year from the date of notification if I am / We are in a breach of any obligation under the bid conditions because I / We

- a) have withdrawn / modified / amended, impairs or derogates from the bid, my / our Bid during the period of bid validity specified in the form of Bid; or
- b) having been notified of the acceptance of our Bid by the purchaser during the period of validity (i) fail or reuse to execute the contract if required or (ii) fail or refuse to furnish the Performance Security in accordance with the instructions to bidders.

Signature with stamp

(signature of person whose name and capacity are shown)

In the capacity of (legal capacity of person signing the Bid Securing Declaration)

Name _____

Date _____



Tender No.

Annexure-V

SELF DECLARATION – NO BLACKLISTING

In response to the Bid Document for “Supply & Installation of Indoor WiFi Access points, 24 POE+ Managed Network L2 Switch and Layer 2 Network Switch at NIFT Hyderabad campus”, I / We hereby declare that presently my / our company / firm is having unblemished record and is not declared ineligible for corrupt and fraudulent practices either indefinitely or for a particular period of time by any State / Central Government / PSU / Autonomous body.

I / We further declare that presently my / our company / firm is not blacklisted or debarred and not declared ineligible for reasons other than corrupt and fraudulent practices by any State / Central Government / PSU / Autonomous body or the date of Bid submission including violation of relevant labor laws.

I / We further declare that contract of my / our company / firm has never been terminated by any State / Central Government / PSU / Autonomous body due to deficiency in services, performance or any other defaults.

If this declaration is found to be incorrect, then without prejudice to any other action that may be taken, my / our security may be forfeited in full and the bid, if any to the extent accepted may be cancelled at any stage and the contract may be terminated and we shall be debarred from bidding in future against any other bid.

Yours faithfully,
Place:

(Signature of the bidder with seal)

Date:



Annexure-VI

INDOOR WIFI ACCESS POINTS SPECIFICATIONS – 01 no.

SI No.	Specification	Description	Bidder Specification	Deviation. if any
1	Type of access point	Indoor		
2	Wi-Fi standard	Comply to 802.11a/b/g/n/ac/ax standards		
3	Physical Interfaces	Min of 1xRJ-45 Console port, 1xUSB port and 1xPOE Port 10/100/1000/2500Mb,		
4	Power Rating	power up using 802.3 af/at PoE input (Fully functional with all components) and option of being powered through AC / DC power Adaptor.		
5	Radio Chains and Spatial Streams	Dual Radios to support 2.4 GHz & 5Ghz concurrent users and 6 spatial streams 4x4:4 & 2x2:2 OFDMA with MU-MIMO on 5Ghz & 2.4Ghz radios/bands.		
6	Data rate Performance	Aggregate data rate capability to be maximum 2900 Mbps		
7	Device Management	Managed by Cloud, On-Premises, Virtual controller, Standalone, Local (web UI), SSH (CLI). Support for disabling the reset/reboot button on the AP via controller.		
8	Client Capacity	Handle 1000 clients or more		
9	Transmission Power	minimum 26dBm for 2.4Ghz and 22dBm for 5Ghz.		
10	Antenna Type & Gain	Built in integrated antenna gain of minimum 7.5dBi in 5Ghz and 5.5dBi in 2.4Ghz		
11	SSID	SSID support : 16 BSSIDs minimum per radio		
12	Operating Mode	work in Access point, router, and mesh mode		
13	Wireless Security	WPA3,WPA2- Personal, WPA3,WPA2-Enterprise, enhanced open (OWE),MAC based authentication, Captive portal-based authentication		
14	Web Authentication	Radius, Active Directory, LDAP		

15	HawkEye – Rogue/WIDS / WIPS	Support WIDS/WIPS, NIPS, Rogue detection		
16	Network Diagnostics support	Ping, ARP, Traceroute, Nslookup, Internet speed, Host discovery, Port connectivity, scanner		
17	Networking Features	Like Ethernet WAN routing protocols, Tunneling protocols, Multi WAN support, DHCP server, WAN Failover (USB & RJ45) WAN Security, PPP Interface, DNS, NAT, VLAN and IGMP		
18	VLAN Support	The access point should support 802.1q VLAN tagging		
19	Mounting Kit	Should be provided the suitable ceiling /wall Mount kit		
20	Operating Temperature	the operating temp 0° to 55° C and Humidity: upto 95% non-condensing.		
21	Certification	Mandatory certifications: BIS, Safety:IS-13252, IEC- 60950 , IEC-60215, EMI/EMC (IEC / EN-61000, Radio, Technical (IPv4 & IPv6) , NABL 2.4, NABL 5, Wi-Fi Alliance – WI-Fi6 Certified, IPV6 Logo Ready Certified, Environmental :CE,RoHS , Dry Heat, Cold, Thermal Cyclic, DampHeat: IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-14, IEC 60068-2-30		
22	Warranty	3-year manufacturing warranty & 3-Year Cloud controller License and support from OEM. The controller (Cloud/Virtual) features are mentioned at Annexure -A		

Annexure -A		
1	Type of Controller (Cloud / Virtual)	Cloud /Virtual (For virtual server to be supplied by bidder)
2	License type	Perpetual
3	APP Management	capable to manage and Monitor through mobile application
4	Administration Features	support for multi-tenancy control: capability of Roles based Administration as Organization- wise, site-wise management.
5	Management Interface	managed via GUI/CLI

6	Access control list	Support access control features
7	Wi-Fi Standards	Support 802.11a/b/g/n/ac/ax capabilities
8	Wi-Fi Encryption	WPA2 AES, WPA2
9	Airtime allocation	Dynamic Airtime allocation on per WLAN, per AP, Per AP group
10	Stacking Capability	Ability to work actively between the two networks IPv4 and IPv6 .
11	QoS Capability	Support for QoS for Voice over Wireless
12	Authentication methods	support 802.1x , EAP-Tunneled TLS, MAC Auth for wireless clients
13	User Access Control	Manage User Access Policy for L2, L3 and L4 ACL.
14	Radio Management	RM for power channel, coverage hole detection and performance optimization
15	Data Encryption	at least a 256-bit encrypted tunnel to ensure frames
16	Roaming Capabilities	Fast & Assisted roaming using IEEE 802.11r & 802.11k/v. And OKC for 802.1x
17	Theft Protection	Enabling default theft protection to disable accessing the AP Login Attempts
18	System Logs	capability to integrate with Syslog server to offload the logs
19	Client Connectivity	allow client device connection even if disconnected from the controller
20	Notifications	Notifications via Email, Mobile App and Web Notifications
21	Report Scheduling	support Auto scheduling of reports with customization
22	Server Integration	support external Syslog server to send daily/weekly logs
23	Guest Access	Integrated Guest Access captive portal with Access/ QR code based auth
24	Bandwidth Restrictions	support Port based Bandwidth restriction
25	RF Management	RF management feature like Airtime fairness and Band Steering.
26	Operational Features	For smooth, seamless and easy manageability, operation, interoperability and maintenance, the bidder should offer/quote WLC & APs of the same make (OEM).
27	Rogue & instruction Detection	Rogue access point detection Wireless Intrusion Protection System
28	Monitoring and updating	Controller is able to Monitor manage, configure & restore firmware for Wi-Fi



24 POE+ Managed Network L2 Switch Specifications - 02 Nos.

Sl No.	Specification	Description	Bidder Specification	Deviation if, any
1.	Ports & interfaces PoE Ports / Budget:	24×10/100/1000 Base-T ports with 4x10G Fiber uplinks, 740 Watts PoE Budget Max PoE (802.3af):24 Max PoE+ (802.3at):24		
2.	Memory	CPU memory: 512 Mb or more Flash memory: 256 MB or more		
4.	Management Features	Web user Interface, SSH, Telnet, Remote Monitoring.		
5.	PERFORMANCE	Switching capacity: 125 Gbps or more Through put: 95 Mbps or more		
6.	Security	SSH SSL IEEE 802.1X STP BPDU Guard STP Root Guard DHCP snooping IP Source Guard (IPSG) Dynamic ARP Inspection (DAI) Port security RADIUS/TACACS+ RADIUS accounting Storm control DoS prevention		



		Congestion avoidance Multiple user privilege levels in CLI ACLs Supports for up to 512 rules or more		
7.	Supported network protocols:	TCP/IP, ARP, DHCP, HTTP, UDP, ICMP, IPv6		
8.	Networking	MAC address table: 16K entries Flow control support: Yes Port mirroring: Yes Link aggregation: Yes Jumbo Frames support: Yes Broadcast storm control: Yes Rate limiting: Yes DHCP client: Yes Number of VLANs: up to 4096 Spanning tree protocol: Yes Layer3 static & Vlan routing: yes Duplicate Address detection: Yes Voice and Multicast TV Vlan: yes Port and VLAN mirroring: yes		
9.	Management Ports: console (RJ45) Storage (USB type A)	Yes		
10.	Warranty	3 years		



Layer 2 Network Switch Specifications: 01 no.

Sl No.	Specification	Description	Bidder Specification	Deviation if, any
1.	10/100/1000 Base-T and SFP Ports	24 nos. 10/100/1000 Base-T ports and 4 x 10G SFP Uplink ports and populated with 4x10G SFP Single mode.		
2.	Stacking Bandwidth	Minimum 80 Gbps of stacking bandwidth with dedicated stacking ports.		
3	Redundant Power Supply	Required inbuilt internal & redundant power supply		
4.	RAM & Flash	2 GB DRAM and 4 GB Flash.		
5.	Switching Capacity & forwarding Rate	Minimum 128 Gbps and 95.23 Mbps		
6.	Mac Addresses & VLAN Id's	Virtual Networks: 1, Total number of MAC addresses: 16000, VLAN IDs: 4096, Total Switched Virtual Interfaces (SVIs): 512, Jumbo frames : 9198 Bytes.IPV4 Routing Entries:2000 or more		
7.	IEEE Standards of Ethernet:	IEEE 802.1D, 802.1s, 802.1w, 802.3az, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z.		
8.	Network Management Features	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, NTP, RADIUS and TACACS+		
9.	Layer-3 Routing Support	IPV4/IPV6 Routing: -Static, Dynamic, OSPFV2, V3, RIPv1, V2, RIPv6, IS-IS, MPLS VPN, Policy-Based Routing.		
10.	Multicast Routing	For IPV4& V6, PIM), MSDP, IGMP Snooping, BSR, MLD Snooping.		
11	VLAN Support	VLAN Routing, IEEE 802.1Q VLAN Tagging, VLAN Trunking, PVLAN. Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.		



12	Quality of Service	Traffic Classifications based on DSCP, CoS, IP Precedence, and other header fields. Traffic Shaping and Policing, marking, 802.1p Priority Queues.		
13	Network Security	Access Control List (ACLs):- Packet filtering based on IP, MAC addresses, protocols, or other header data. Support for both IPV4 & IPV6: Port Security, MACsec-128, Storm Control, DHCP Snooping, Dynamic ARP Inspections, MAC-IP Port binding, IP Source guard, BPDU Guard, Spanning tree root guard.		
14	Redundancy and High Availability	LACP, STP/RSTP/MSTP, VRRP/HSRP, SSO		
15	Switch fundamentals: -	Layer 2, Static Routing, Routed Access (RIP, EIGRP Stub, OSPF – routes). Supports CDP neighbor command & VTP protocol.		
16	Advanced switch capabilities and scale	EIGRP, HSRP, IS-IS, BSR, MSDP, IP SLA, OSPF		
17	Network segmentation	VRF, VXLAN, LISP, SGT		
18	Automation	Automation: - NETCONF, RESTCONF, YANG, PnP Agent, PnP		
19	SD - Access	SD-Access: - Policy-based automation and assurance for wired and wireless		
20	Certificates:	UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment. EN 55022 Class A/B or CISPR22 Class A/B or CE Class A/B or FCC Class A/B Standards for EMC (Electro Magnetic Compatibility) requirements. TEC Certificate, Common Criteria Certificate, IPV6 logo certified		
21	Warranty	3 years		