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IN THE HIGH COURT OF DELHI AT NEW DELHI

F.No.649-B/DHC/IT/DA-2/No. 8912
Dated: 16.05.25

From,

The Registrar General
Delhi High Court
New Delhi

To,

(on the website of Delhi High Court & Indian Trade Journal)

Sub.: NOTICE INVITING TENDER for supply and installation of Switches with 5 years on-site comprehensive warranty with back to back support from OEM, Passive Network Components along with support of one Resident Enginner AND award of AMC of existing 1611 nos. of LAN points, 37 Nos. Rack with power strip, FAN along with one technician to manage these hardwares.

This Court intends to purchase the following Switches, Passive Network Components and to award AMC for LAN Points and its related hardware items with one technician to manage these hardwares:

Sl. No.	Details of Hardware	Qty.	Location for supply and installation
1.	L2 Switches (24 Ports) (fresh requirement)	14	High Court of Delhi, New Delhi
2.	L2 Switches (48 Ports) (fresh requirement)	8	High Court of Delhi, New Delhi
3.	L2 Switches (48 Ports)(replacement of existing CISCO 3850 switches)	2	High Court of Delhi, New Delhi
4.	Distribution switches/L3 Switches (48 Ports) (replacement of existing CISCO 4500 switches)	3	High Court of Delhi, New Delhi
5.	One CCNA Certified Engineer to manage the above mentioned Switches (at serial no. 1 to 4)	1	High Court of Delhi, New Delhi
6.	Router with minimum four interfaces	1	Disaster Recovery site, Madurai Bench of Madras High Court, Tamil Nadu
7.	L-2 Switch (48 Ports) for NAS	1	Disaster Recovery site, Madurai Bench of Madras High Court, Tamil Nadu
8.	L-3 Switch (48 Ports) for NAS	1	Disaster Recovery site, Madurai Bench of Madras High Court, Tamil Nadu
9.	Wall mountable racks with PDU (12 U)	17	High Court of Delhi, New Delhi *[Passive material/ Network Components, network/rack accessories required to integrate the new switches (at Serial no.1 to 4) with the Delhi High Court LAN]*
10.	OFC 6 core (in meter) with LIU (Single Mode)	2080 meter Approx	
11.	OFC 6 core (in meter) with LIU (Multi Mode)	700 meter Approx	
12.	SFP/Module 10G (Single Mode)	22	
13.	SFP/Module 10G (Multi Mode)	20	
14.	Supply and laying of CAT 6A Cable with all required accessories of LAN point (including box, laying cable protective laying, Patch Cord & conducting etc.)	On actual requirement basis	

15.	AMC of existing 1611 Nos. of LAN Points, 37 Nos. Rack with power strip, FAN along with one technician to manage these hardwares in High Court of Delhi at New Delhi	For 2 years	High Court of Delhi, New Delhi

Note: ***AMC of existing LAN points (as mentioned at serial no.15 of the above table) along with one technician to manage these hardware in the High Court of Delhi at New Delhi shall be awarded for a total period of two (02) years but the renewal for the second year of AMC (at the same rate) shall be based on the sole discretion of Delhi High Court on the basis of the performance of the vendor.***

Interested firms/vendors **(Based in Delhi/NCR Region only)** are requested to submit their respective quotations for the same in a sealed envelope.

The sealed envelope containing the **Earnest Money Deposit (EMD) of 3% of total proposed cost (incl. GST) of the respective Hardware (with one CCNA certified Resident Engineer) and AMC of existing 1611 nos. of LAN points, 37 Nos. Rack with power strip, FAN along with one technician to manage these hardwares** {by way of DD/ Banker's Cheque/Pay Order drawn in favour of **"The Registrar General, Delhi High Court" payable at New Delhi},** Price Bid and Undertaking along with other necessary documents, must reach the Administrative Officer (Judl.) (I.T. Branch), Room No. 6, Ground Floor, Lawyer's Chamber Block-III, Sher Shah Road, High Court of Delhi, New Delhi-110003 on or before 6/6/25 till 05:30 P.M. The sealed envelope should be addressed in the name of "The Registrar General, Delhi High Court, New Delhi" mentioning the subject **'Quotation for Switches & its passive network components and AMC of existing LAN points and its related hardware with one technician to manage these hardware in High Court of Delhi at New Delhi"** which should be super-scribed on the sealed envelope. Quotations received after the due date and time and/or without mentioning the subject shall be summarily rejected without any notice.

The terms & conditions to participate in the instant tender are as follows:-

1. **Necessary documents to be submitted with the bid, non compliance will lead to rejection of the Quotation :-**

a) **Annexure-'A' i.e.** Technical Compliance Sheet containing minimum technical specification of L2 Switch (24/48 ports) (for hardware mentioned at Sl. No.1-3).

b) **Annexure-'B' i.e.** Technical Compliance Sheet containing minimum technical specification of Distribution Switches/L3 Switch (48 Ports) (for hardware mentioned at Sl. No.4).

c) **Annexure-'C' i.e.** Technical Compliance Sheet containing minimum technical specification of Router with minimum four interfaces (for hardware mentioned at Sl. No.6).

d) **Annexure-'D' i.e.** Technical Compliance Sheet containing minimum technical specification of L-2 Switch (48 Ports) (for hardware mentioned at Sl. No.7).

e) **Annexure-'E' i.e.** Technical Compliance Sheet containing minimum technical specification of L-3 Switch (48 Ports) (for hardware mentioned at Sl. No.8).

f) **Annexure-'F':** Price Bid (for hardware & Engineer mentioned at Sl. No.1-5 & 9-14) along with copy of current authorization letter of the OEM and Earnest Money Deposit (EMD) **of 3% of total proposed cost (incl. GST)** by way of DD/ Banker's Cheque/Pay Order drawn in favour of **'The Registrar General, High Court of Delhi, New Delhi'.**

g) **Annexure-'G':** Price Bid (for hardware mentioned at Sl. No.6-8) along with copy of current authorization letter of the OEM and Earnest Money Deposit (EMD) **of 3% of total proposed cost (incl. GST)** by way of DD/ Banker's Cheque/Pay Order drawn in favour of **'The Registrar General, High Court of Delhi, New Delhi'.**

h) **Annexure-'H':** Price Bid for AMC of existing 1611 Nos. of LAN Points, 37 Nos. Rack with power strip, FAN along with one technician to manage these hardware in High Court of Delhi at New Delhi and Earnest Money Deposit (EMD) **of 3% of total proposed cost (incl. GST)** by way of DD/ Banker's Cheque/Pay Order drawn in favour of **'The Registrar General, High Court of Delhi, New Delhi'.**

i) **Annexure-'I' i.e.** Undertaking duly filled in/signed/stamped by the vendor.

j) **Annexure-'J':** To be filled only by those firms, which are claiming exemption from registration under GST Act and offering net rates only.

k) Copy of GST Registration Certificate, if the firm/vendor is registered under GST Act.

Note: *The firms/vendors offering net rate claiming that they are mandatorily not required to be registered under the GST Act shall not mention tax rate/amount and submit the 'net rates' only in Column 'D' of their Price bid.*

2. <u>General instructions</u> :-

a) This Court shall have the right to call clarification(s) in respect of the Bid(s), if required.

b) In case the purchase order awarded to L-1/most eligible vendor/firm is cancelled due to non-supply of goods within the stipulated period, the purchase order will be awarded to the next eligible L-2/the second eligible vendor/firm. The firm shall be liable to be blacklisted to participate in future tenders of this Court and the EMD shall be forfeited, if failed to give any cogent reason for non-supply of goods within the stipulated period.

c) The DD/ Banker's Cheque/Pay Order towards EMD of all the bidders, except the lowest three, shall be returned to the vendors on their written request after finalization of selection process.

d) The DD/ Banker's Cheque/Pay Order of L-2 & L-3 vendor/firm will be returned to the firms/vendors upon written request after issuance of the Purchase order to the eligible successful bidder (L-1).

e) The EMD of successful bidder will be returned (on written request) only after supply and successful completion of the Purchase Order placed upon the firm fulfilling all codal formalities against receipt.

f) The selected firm/vendor is also required to submit the details of **SPOC (Single Point of Contact)** for after sale support and will also ensure that the complaints lodged before lunch shall be resolved during the second half of the day i.e. after lunch and complaints lodged after lunch shall be resolved on the next working day. In case of change in SPOC, the same must be updated immediately to avoid inconvenience to the Hon'ble Court.

g) **The successful bidder will also be required to <u>supply, install and integrate</u> the Hardware(s) with the existing setup at the High Court of Delhi at New Delhi.**

h) **The selected vendor (for AMC) will have to execute Service Agreement with Delhi High Court for the satisfactory performance and will also have to furnish the performance Bank Guarantee @ 8% of total proposed cost (incl. GST) for the AMC period plus two months.**

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3. **Grounds for rejection/disqualification of Bid(s)/Quotation(s):-**

a) Bids/quotations received without EMD.

Note: *No request for waiver of EMD on any ground shall be entertained.*

b) If multiple quotations are submitted by a firm / vendor, all such quotations submitted will be liable to be rejected at the first instance.

c) Non submission of copy (duly signed and having stamp of the firm) of current authorization letter issued by the OEM in favour of the participating firm/vendor.

d) Validity of rates must not be less than 180 days from the last date of submission of the quotation.

e) Bids/quotations received after due date shall be summarily rejected and no request for extension of last date / due date of the Tender will be entertained.

f) Bids/quotations related to some other item not related to instant tender.

g) Any interlineations, erasure or correction in the specification/offered rate, which renders the whole tender process doubtful or ambiguous.

h) Bids/quotations in the format other than the prescribed one.

i) Non submission of required documents or submitting incomplete documents.

j) Any other ambiguity in submission of bid/quotation or any unreasonable condition.

4. **Supply of Goods :-**

a) The selected eligible L-1 vendor/firm, shall be bound to supply, install and integrate the required item within 45 days from the date of issuance of Purchase Order, failing which the purchase order issued shall be deemed to be cancelled without entertaining any communications in this regard unless sufficient cause is communicated (supported by documentary proof) for such delay.

5. **The firm(s)/Vendor(s) may be blacklisted for the following reasons :-**

a) Withdrawal or attempt to revise the bid/quotation on any ground after opening of the same.

b) Non adherence to the validity of rates for 180 days from the last date of submission of bid/quotation.

c) Non supply of goods as referred to above.

6. **Vendors exempted from Registration under GST Act :-**

a) The firm(s) claiming that they are mandatorily not required to be registered under the GST Act shall submit NET rates (rate without tax component) only in their quotation and need not mention tax rate and tax amount and are further required to submit an affidavit strictly as per **Annexure-'J'** with supporting documents in respect of exemption from registration under GST Act viz. copy of the latest Notification issued by Govt. Of India/Govt of NCT of Delhi duly attested under the seal of the firm. Turnover certificate issued by Chartered Accountant for the F.Y. 2024-2025 & 2025-2026 etc.

7. **Clarification regarding this Tender :-**

a) In case the firm/vendor wants any technical clarification regarding this Tender, Mr. Zameem Ahmed Khan, Joint Director (IT) at Tel. No. 011-43010101 (Ext. 4852) may be contacted.

8. <u>Finality of decision of the competent authority</u> :-

a) The decision of the competent authority for short listing of the firm/vendor after evaluation of the Bid(s)/quotation(s) shall be final & binding on all the participants in the instant tender process.

b) This Court reserves the right to modify/amend the tender document/Terms and Conditions of the tender at a later stage and also to <u>increase or decrease the quantity</u> depending on the requirement.

c) This Court also reserves the right to reject any of the bids or all the bids or quash the whole tender process without assigning any reasons thereof. Any step taken by the competent authority to safeguard the interest of this Court shall be final and binding on all participants.

Note: *No employee of this Court or his/her dependent family member be involved in the instant tender process, as the said act would be in contravention of the requirement/provisions contained in Central Civil Services (Conduct) Rules 1964.*

Yours truly,

(AJAI KUMAR RANA)
Assistant Registrar (IT)
for Registrar General

CC to Joint Director (IT), DHC - for uploading on the official website of the Delhi High Court.

Annexure-'A'

TECHNICAL BID

Compliance Sheet – L-2 Switches (24 ports/ 48 ports)

(Minimum Technical Specification)

Sl. No.	Description of Product		Compliance (Yes/No)	Give Details/ Remarks, if any
1.	General Features	Proposed switch should be enterprise grade switch with x86 based CPU architecture.		
		The switch should have 24 / 48 nos. 10/100/1000 Mbps Ethernet Ports and in addition 8 nos. of 10Gig SFP+ uplink ports.		
2.	Performance and Scalability	The switch should support non-blocking switching bandwidth up to 256 Gbps (without considering stacking bandwidth).		
		The switch should support wire-speed 64-Byte Packet Forwarding Rate up to 190 Mpps.		
		The switch should have 16GB of Flash memory to store image and logs. The switch should have 8 GB of DRAM.		
		The switch should support 1000 SVI.		
		The switch should support 4094 VLAN IDs.		
		The switch should support Jumbo frames of 9198 bytes.		
		The switch should support 32000 Unicast MAC addresses.		
3.	Stacking	Switch should dedicated stacking ports other than user and uplink ports.		
		Switch should have atleast 480 Gbps stacking performance.		
		Switch should be provided with necessary stacking module and cables from day-1.		
		Switch should support 8 members in stack.		
		The proposed switch family should support multi gigabit ethernet switches to support higher bandwidth and it should be possible to stack multigigabit switches with proposed switches.		
		The Switch stack should be based on Distributed forwarding Architecture, where in each stack member forwards its own information on network.		
		The Switch stack architecture should have centralized control and Management plane with Active Switch and all the information should be Synchronized with Standby Switch.		
		The Switch should support Stateful Switchover (SSO) when switching over from Active to Standby switch in a Stack.		
		The Switch stack architecture should allow the end user to stack 24 Port Switch with 48 Port of the same model.		
		The Switch should support stack power.		
4.	Standards	The switch should support IEEE 802.1D Spanning Tree Protocol.		
		The switch should support IEEE 802.1p.		
		The switch should support IEEE 802.1Q Trunking		
		The switch should support IEEE 802.1s Multiple Spanning Tree (MSTP)		
		The switch should support IEEE 802.1w Rapid Spanning Tree (RSTP)		

		The switch should support IEEE 802.1x		
		The switch should support IEEE 802.1ab (LLDP)		
		The switch should support IEEE 802.3ad Link Aggregation Control Protocol (LACP) across stack members and should able to do load balance traffic across links		
5.	Layer-2 Features From Day 1	The switch should support Automatic Negotiation of Trunking Protocol to help minimize the configuration & errors.		
		The switch should support IEEE 802.1Q VLAN encapsulation		
		The switch should support Spanning-tree PortFast and PortFast guard for fast convergence		
		The switch should support Spanning-tree root guard to prevent other edge switches becoming the root bridge .		
		The switch should support Voice VLAN to simplify IP telephony installations by keeping voice traffic on a Separate VLAN.		
		The switch should support Unidirectional Link Detection Protocol (UDLD) and Aggressive UDLD to allow for unidirectional links caused by incorrect fiber-optic 'Wiring or port faults to be detected and disabled on fiber-optic interfaces .		
		The switch should support IGMP v1, v2 Snooping		
		Switch should support IPv4 and IPv6. The Switch should be able to discover (on both IPv4 & IPv6 Network) the neighboring device giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
6.	Layer-3 Features	Switch should support min. 32000 IPv4 routes, and it should support Layer 2, Routed Access (RIP, OSPF -1000 routesL PBR, PIM Stub· Multicast (1000 routes)L PVLAN, VRRP, PBR, CDP, QoS, FHS, B02.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO		
		The Switch should support routing protocols such OSPF, BGPv4, IS-ISv4, EIGRP, LISP, VXLAN, VRF, MPLS, L3VPN for future upgrade		
		The Switch should support IPv6 Routing capable protocols such as OSPFv3 in hardware.		
		The Switch should sup'port basic IP Unicast routing protocols (Static, RIPv1 & RIPv2).		
		The Switch should support IPv6 & IPv4 Policy Based Routing (PBR)		
		The Switch should support Inter-VLAN routing .		
		The Switch should support HSRP for IPv4 & IPv6.		
		The Switch should support VRRPv3.		
		The Switch should support uRPF for IPv4 and IPv6.		
7.	Network Security Features	The switch should support IEEE 802.1x providing user authentication, authorization and CoA.		
		The switch should support SSHv2 and SNMPv3 to provide network security by.encrypting administrator traffic during Telnet and SNMP sessions.		

		The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration.		
		The switch should support MAC address notification to allow administrators to be notified of users added to or removed from the network.		
		The switch should support MACSec-2S6, Encrypted traffic analytics.		
8.	Quality of Service (QoS) & Control	The switch should support 8 egress queues per port to enable differentiated management.		
		The switch should support Standard 802.1p CoS field classification.		
		The switch should support IPSLA feature set to verify services guarantee based on business critical IP Applications.		
		The switch should support QoS based on application.		
9.	Operation and Management	The switch should support configuration of the Software image and switch configuration without user intervention.		
		The switch should have built in RFID tag for asset tracking and inventory management.		
		The switch should support system health checks within the switch.		
		The switch should support Command Line Interface (CLI) for configuration troubleshooting purposes.		
		The switch should support Layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination.		
		The switch should support Telnet and SSH interface support for comprehensive in-band management.		
		The switch should support SNMPv1, SNMPv2c and SNMPv3 and netflow v9.		
10.	Dimension	The Switch should be 1RU.		
		The switch should able to support built-in redundant power supplies from day 1.		
		Switch should be provided with AC power supply and Indian power cords.		
11.	Miscellaneous	Console cable and power cable (As per Indian standards) as per customer requirement to be provided. All Cables shall be factory- terminated.		
		All Functionalities of Switch shall be IPv6, compliant and it should work on IPv6 Platform without any additional hardware/ software.		
		All the components should be from same OEM.		

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Annexure-'B'

TECHNICAL BID

Distribution Switches/L-3 Switches (48 ports)

(Minimum Technical Specification)

S.No	Parameters	Compliance (Yes/No)	Give Details/ Remarks, if any
1.1	**General Features**		
1.1.1	Switch shall be 1U and rack mountable in standard 19" rack.		
1.1.2	Proposed switch should be enterprise grade switch with x86 based CPU architecture		
1.1.3	The switch should have minimum of 48 nos. 1/10/25G Gigabit Ethernet Ports and in addition 4 nos. of 40/100 Gig Uplink Ports.		
1.2	**Performance & Scalability**		
1.2.1	Switch shall have 16 GB RAM and 16 GB Flash		
1.2.3	Switching system shall have minimum 1.5 Tbps of switching fabric and minimum 1Bpps of forwarding rate.		
1.2.4	Switching system shall have minimum 64K MAC Addresses and 4K VLANs.		
1.2.5	Switch should support minimum 18K ACLs, 16K Multicast Routes and 64K IPv4 Routes, 32K IPv6 Routes.		
1.2.6	Switch shall support application visibility and traffic monitoring with minimum 60K sflow/jflow/netFlow entries.		
1.2.7	Packet buffer : 32 MB		
1.2.8	Eight egress queues per port		
1.3	**Standards & Protocols**		
1.3.1	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.1AE, 802.3x, 802.1p, 802.1Q, 1588v2		
1.3.2	Switch should provide mechanism to encrypt the traffic between two switches or between switch and a host at Layer 2 via 128/256 bit AES encryption algorithm		
1.3.3	Must support BGP, IS-IS, VRF, VXLAN, OSPF, Policy-Based Routing (PBR), PIM SM, and Virtual Router Redundancy Protocol (VRRP) from Day 1		
1.3.4	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.		
1.3.5	Switch should support port security, DHCP snooping, Spanning tree root guard, First Hop Security.		
1.3.6	IPv6 support in hardware, providing wire rate forwarding for IPv6 network		
1.3.7	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.		
1.4	**High Availability & Resiliency**		
1.4.1	Switch shall have hot swappable 1:1 redundant internal power supply and redundant fan from day 1.		

1.4.2	Switch shall support VSS or equivalent features allow links that are physically connected to two different switch to appear as a single port channel. All the cables/accessories for this is to be provisioned from day 1.		
1.4.3	During system boots, the system's software signatures should be checked for integrity. System should capable to understand that system OS are authentic and unmodified, it should have cryptographically signed images to provide assurance that the firmware & BIOS are authentic.		
1.5	**Management**		
1.5.1	Switch needs to have console port for administration & management		
1.5.2	Switch should support Management using CLI, GUI using Web interface and should support management features like SSHv2, SNMPv2c, SNMPv3, IGMP.		
1.5.3	Switch should support comprehensive programmability features like Model-Driven Programmability, NETCONF/REST interface, API or equivalent.		
1.4	**Certification**		
1.4.1	Switch shall conform to UL 60950, IEC 60950, CSA 60950, EN 60950 Standards		
1.4.2	Switch / Switch's Operating System should be tested for EAL2/NDPP/NDcPP or above under Common Criteria Certification.		

Annexure-'C'

TECHNICAL BID
Compliance Sheet - Router
(Minimum Technical Specification-Router)

S. No	Detailed Technical Specifications Router (DHC)	Compliance (Yes/No)	Give Details/ Remark, if any
1	**General requirements**		
	Router should have a modular/multicore architecture		
	From day one the Device should support termination of MPLS as well as Internet links (in future if needed) and must be able to use both the links for traffic. Any failure of a link must result in steering traffic on another link without any manual intervention.		
	Device should have Internal hot swappable power supply with 1+1 redundancy		
	Minimal performance degradation when running advanced services such as stateful firewall, NAT and IPSec.		
	Hardware and interface requirements		
2	Router should have atleast 4 x 1G RJ-45 and 4 x 1G/10G SFP+ ports* supporting both LAN and WAN protocols. All ports must be populated from day 1 including 10G interfaces. *(*Two 10Gig Port required for two SP interface and two 10Gig ports are required for two UTM firewall Interface.)*		
	Device should have 1x RJ45 console port for management		
	Router should have sufficient RAM/DRAM* or more to support routing tables & other memory intensive processes from Day 1. *(*Platform should have 16 GB default DRAM from day one and it can be upgraded to 32 GB.)*		
	All the LAN/WAN ports should be in compliance with 802.3 standards		
	Router should have internal redundant Power Supply.		
	Performance requirements		
3	The Router should have minimum routing performance of 14000Kpps or 20Gbps upgradable to 39Gbps		
	The Router should support minimum IPsec performance of 19Gbps		
	The router should support minimum 3 million IPv4 & 2Million IPv6 routes.		
	Quality of Service (QoS) requirements		
4	Routers should support Class-based queuing with prioritization		
	It should be possible to configure maximum bandwidth and guaranteed bandwidth		
	Routers should support 802.1p, DSCP and EXP		
	Routers should support Marking, policing, and shaping		
	Routers should support congestion management features like WRED		

	Routing protocol support		
5	The Router should support IPv4 and IPv6 routing, Static routing		
	The Router should support VRRP, HSRP, MPLS-L3VPN, DHCP, Link Budgeting		
	The Router should support Policy Based Routing		
	Generic Routing Encapsulation; 802.1q VLAN; PPP; PPPoE		
	The Router should have RIP, OSPF, IS-ISand BGP		
	Multicast Features		
6	IGMP v1/v2/v3 and PIM-SM, Source Specific Multicast (SSM)		
	MPLS Features		
7	Layer 2 and Layer 3 VPN, LDP, RSVP and mVPN/ NGMVPN		
	Preloaded MPLS features from day 1		
	Security features		
8	Routers should support AAA using RADIUS or TACACS		
	Routers should support 1000 IPSec Tunnels		
	Routers should support Packet Filters/ACL 8		
	Routers should support Stateful Firewalling		
	Routers should support Tunnels (GRE and IPSec)		
	Routers should support DES (56-bit), 3DES (168-bit), AES (256-bit) encryption		
	Routers should support MD5 and SHA-384 or better authentication		
	Routers should support Network address translation (NAT).		
	Routers should have role based access mechanisms.		
	SD-WAN		
9	Proposed router should support SD-WAN functionality as well without changing the hardware in the setup.		
	Device should be able to support PIM SM across SD-WAN, PIM SM with neighbour support on LAN and WAN interfaces, PIM SSM, PIM SM Bootstrap RP, PIM Rendezvous- Point, IGMP v2/v3		
	Management and Troubleshooting		
10	Router should have Console, Telnet, SSH and Web for management		
	Routers should support SNMPv2 and SNMPv3		
	Extensive debugs on all protocols		
	IPSLA/ Real-Time Performance Monitor		
	Certifications		
11	Safety certifications UL 60950-1		
	10 EMC certifications FCC Class A		
	The Router or the series should be IPv6 Certified (IPv6 Logo Ready or USGv6)		
	Device shall conform to EN 55032 or EN 55024 or VCCI-CISPR 32 Standards for EMC (Electro Magnetic Compatibility) requirements.		
	Device shall confirm to CB IEC 60950-1 or CB IEC 62368-1 Standards for Safety requirements of Information Technology Equipment		

	The Router should be EAL 3/NDPP/ NDcPP certified under Common Criteria or should be CE/MEF 2.0 compliant		
	Warranty		
12	5 Years		

Annexure-'D'

TECHNICAL BID
Compliance Sheet – L2 Switch (48 ports)
(Minimum Technical Specification-L2 Switch)

S. No.	Description of Product- L2 Switch		Compliance (Yes/No)	Give Details/ Remark, if any
1	**General Features**	Proposed switch should be enterprise grade switch with x86 based CPU architecture.		
		The switch should have minimum of 48 nos. 10/100/1000 Ethernet Ports and in addition 8 nos. of 10Gig SFP+ uplink ports.		
2	**Performance and Scalability**	The switch should support non-blocking switching bandwidth up to 256 Gbps (without considering stacking bandwidth).		
		The switch should support wire-speed 64-Byte Packet Forwarding Rate up to 190 Mpps.		
		The switch should have 16GB of Flash memory to store image and logs The switch should have 8 GB of DRAM.		
		The switch should support 1000 SVI.		
		The switch should support 4094 VLAN IDs.		
		The switch should support Jumbo frames of 9198 bytes.		
		The switch should support 32000 Unicast MAC addresses.		
3	**Stacking**	Switch should have dedicated stacking ports other than user and uplink ports.		
		Switch should have atleast 480 Gbps stacking performance.		
		Switch should be provided with necessary stacking module and cables from day-1.		
		Switch should support 8 members in stack.		
		The proposed switch family should support multi gigabit ethernet switches to support higher bandwidth and it should be possible to stack multigigabit switches with proposed switches.		
		The Switch stack should be based on Distributed forwarding Architecture, where in each stack member forwards its own information on network.		
		The Switch stack architecture should have centralized control and Management plane with Active Switch and all the information should be Synchronized with Standby Switch.		
		The Switch should support Stateful Switchover (SSO) when switching over from Active to Standby switch in a Stack.		
		The Switch stack architecture should allow the end user to stack 24 Port Switch with 48 Port of the same model.		
		The Switch should support stack power.		
4	**Standards**	The switch should support IEEE 802.1D Spanning Tree Protocol.		
		The switch should support IEEE 802.1p.		
		The switch should support IEEE 802.1Q		

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		Trunking		
		The switch should support IEEE 802.1s Multiple Spanning Tree (MSTP)		
		The switch should support IEEE 802.1w Rapid Spanning Tree (RSTP)		
		The switch should support IEEE 802.1x		
		The switch should support IEEE 802.1ab (LLDP)		
		The switch should support IEEE 802.3ad Link Aggregation Control Protocol (LACP) across stack members and should able to do load balance traffic across links		
5	**Layer-2 Features (from Day one)**	The switch should support Automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors.		
		The switch should support IEEE 802.1Q VLAN encapsulation		
		The switch should support Spanning-tree PortFast and PortFast guard for fast convergence		
		The switch should support Spanning-tree root guard to prevent other edge switches becoming the root bridge.		
		The switch should support Voice VLAN to simplify IP telephony installations by keeping voice traffic on a Separate VLAN.		
		The switch should support Unidirectional Link Detection Protocol (UDLD) and Aggressive UDLD to allow for unidirectional links caused by incorrect fiber-optic 'Wiring or port faults to be detected and disabled on fiber-optic interfaces.		
		The switch should support IGMP v1, v2 Snooping		
		Switch should support IPv4 and IPv6The Switch should be able to discover (on both IPv4 & IPv6 Network) the neighboring device giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.		
6	**Layer-3 Features (from day one)**	Switch should support min. 32000 IPv4 routes, and it should support Layer 2, Routed Access (RIP, OSPF -1000 routes L PBR, PIM Stub· Multicast (1000 routes)L PVLAN, VRRP, PBR, CDP, QoS, FHS, B02.1X, MACsec-128, CoPP, SXP, IP SLA Responder, SSO from day 1		
		The Switch should support routing protocols such OSPF, BGPv4, IS-ISv4, EIGRP, LISP, VXLAN, VRF, MPLS, L3VPN for future upgrade		
		The Switch should support IPv6 Routing capable protocols such as OSPFv3 in hardware.		
		The Switch should support basic IP Unicast routing protocols (Static, RIPv1 & RIPv2).		
		The Switch should support IPv6 & IPv4 Policy Based Routing (PBR)		
		The Switch should support Inter-VLAN routing.		
		The Switch should support HSRP for IPv4 & IPv6.		
		The Switch should support VRRPv3.		
		The Switch should support uRPF for IPv4 and IPv6.		
7	**Network**	The switch should support IEEE 802.1x		

	Security Features (From day one)	providing user authentication, authorization and CoA.		
		The switch should support SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.		
		The switch should support TACACS+ and RADIUS authentication enable centralized control of the switch and restrict unauthorized users from altering the configuration.		
		The switch should support MAC address notification to allow administrators to be notified of users added to or removed from the network.		
		The switch should support MACSec-2S6, Encrypted traffic analytics.		
8	**Quality of Service (QoS) & Control (From day one)**	The switch should support 8 egress queues per port to enable differentiated management.		
		The switch should support Standard 802.1p CoS field classification.		
		The switch should support IPSLA feature set to verify services guarantee based on business critical IP Applications.		
		The switch should support QoS based on application.		
9	**Operation and Management**	The switch should support configuration of the Software image and switch configuration without user intervention.		
		The switch should have built in RFID tag for asset tracking and inventory management.		
		The switch should support system health checks within the switch.		
		The switch should support Command Line Interface (CLI) for configuration troubleshooting purposes.		
		The switch should support Layer 2 trace route to ease troubleshooting by identifying the physical path that a packet takes from source to destination.		
		The switch should support Telnet and ssh interface support for comprehensive in-band management.		
		The switch should support SNMPv1, SNMPv2c, and SNMPv3 and netflow v9.		
10	**Dimension**	The Switch should be 1RU.		
		The switch should able to support built-in redundant power supplies from day 1.		
		Switch should be provided with AC power supply and Indian power cords.		
11	**Miscellaneous**	Console cable and power cable (As per Indian standards) as per customer requirement to be provided. All Cables shall be factory- terminated.		
		All Functionalities of Switch shall be IPv6, compliant and it should work on IPv6 Platform without any additional hardware/ software.		
		All the components should be from same OEM.		
		Two 10G SR SFP required for uplink.		

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Annexure-'E'

TECHNICAL BID
Compliance Sheet –L3 Switch (48 ports)
(Minimum Technical Specification-L3 Switch)

S.No.	Description of Product (Specification) L3 Switch		Compliance (Yes/No)	Give Details/ Remark, if any
1	**Solution Requirement**	The Switch should support non-blocking Layer 2 switching and Layer 3 Switching		
		Switch should support the complete STACK of IPv4 and IPv6 services.		
		The proposed switches should be part of Gartner Leader Quadrant for DC Networking for last 2 years		
		The Switch used have the capability to function in line rate for all ports		
2	**Hardware and Interface Requirement**	Switch Should have following Interfaces:		
		Minimum 48 ports support 1/10/25Gbps SFP+ ports for host connectivity and 6*100G ports for Fabric/Spine connectivity.		
		Switch should have console port for local management & management interface for Out of band management		
		1 RU fixed form factor		
		Switch should be rack mountable and support side rails if required		
		Switch should be provided with power redundancy		
3	**Performance Requirement**	Modular as with dedicated process for each routing protocol		
		Switch should re-converge all dynamic routing protocol at the time of routing update changes i.e. Graceful restart for fast re-convergence of routing protocols (OSPF IS-IS BGP)		
		Switch should support minimum 1000 VRF instances with route leaking		
		The switch should support 650K IPV4 LPM routes		
		The Switch should support intelligent buffer management with a minimum buffer of 40MB.		
		The switch should have MAC Address table size of 512K		
		The switch should support 128K multicast routes Switch should support 4000 VLANs		
		Switch should support 64 nos of ECMP paths		
		Switch should support minimum 3.6 Tbps of switching capacity (or as per specifications of the switch if quantity of switches are more, but should be non blocking capacity)		
4	**Network Virtualization Features**	Switch should support Network Virtualization using Virtual overlay Network using VXLAN		
		Switch should support VXLAN and EVPN symmetric IRB for supporting Spine -Leaf		

		architecture to optimize the east -west traffic flow inside		
5	**Layer 2 Features**	Spanning Tree Protocol (IEEE 802.1D, 802.1W, 802.1S)		
		Switch should support VLAN Trunking (802.1q)		
		Switch should support minimum 90k no. of MAC addresses		
		Switch should support VLAN tagging (IEEE 802.1q)		
		Switch should support IEEE Link Aggregation and Ethernet Bonding functionality (IEEE 802.3ad) to group multiple ports for redundancy		
		Switch should support Link Layer Discovery Protocol as per IEEE 802.1AB for finding media level failures		
		Switch should support layer 2 extensions over VXLAN across all Data Center to enable VM mobility & availability		
		The Switch should support DC Bridging i.e. IEEE 802.1Qbb Priority Flow Control (PFCl, Data Center Bridging Exchange (DCBX), IEEE 802.1Qaz Enhanced Transmission Selection lETS). Explicit Congestion Notification		
		Maximum number of port channels should be 300		
		Maximum No. of ports in the port channel should be 32		
		The switch should support BGP EVPN Route Type 2, Type 4 and Route Type 5 for the overlay control plane		
6	**Layer3 Features**	Switch should support static and dynamic routing		
		Switch should support segment routing and VRF route leaking		
		Switch should support Segment Routing and Layered VPN over Segment		
		Switch should support multi instance routing using VRF/ VRF Edge/Virtual routing and should support VRF Route leaking		
		Switch should provide multicast traffic reachable using: a. PIM-SM b. PIM-SSM		
		Support Multicast Source Discovery Protocol (MSDP)		
		Switch should support IGMP v1, v2 and v3		
7	**Quality of Service (from day one)**	Switch should support IEEE802.		
		IP classification and marking of a. CoS (Class of Service) b. DSCP(Differentiated Services Code Point)		

Annexure – 'F'

PRICE BID

SUB.: Supply and installation of Switches with 5 years on-site comprehensive warranty with back to back support from OEM, Passive Network Components alongwith support of one Resident Engineer in High Court of Delhi at New Delhi

Name of the Firm: _____

Address of the Firm: _____

Name of the person *(authorised to sign the tender document)*: _____

Contact No.: _____ **Email Address:** _____

Description of the Product	Unit Price offered (with-out taxes) in ₹	Tax Rate (%)	Total Price offered (incl. taxes) in ₹	Under - taking furnished (Yes/No)	Validity of Rates (180 days or more)	Delivery schedule	Remarks (if any)
A	B	C	D	E	F	G	H
L2 Switch (24 ports) Qty. 14 Nos. Make: _____ Model: _____							
L2 Switch (48 ports) Qty. 10 Nos. Make: _____ Model: _____							
Distribution Switch/L3 Switch (48 ports) Qty. 03 Nos. Make: _____ Model: _____							
One CCNA Certified Engineer to manage the above mentioned switches							
Wall mountable racks with PDU (12U) Qty. 17 Nos.							

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Description of the Product	Unit Price offered (with-out taxes) in ₹	Tax Rate (%)	Total Price offered (incl. taxes) in ₹	Under - taking furnished (Yes/No)	Validity of Rates (180 days or more)	Delivery schedule	Remarks (if any)
A	B	C	D	E	F	G	H
OFC 6 core (in meter) with LIU (Single Mode) 2080 meter Approx							
OFC 6 core (in meter) with LIU (Multi Mode) 700 meter Approx							
SFP/Module 10G (Single Mode) Qty. 22 Nos.							
SFP/Module 10G (Multi Mode) Qty. 20 Nos.							
Supply and laying of CAT 6A Cable with all required accessories of LAN point (including box, laying cable protective laying, Patch Cord & conducting etc.)							
Total							

Total Price as per column 'D' in ₹ _____
words _____

EMD Details

EMD instrument by way of DD/ Banker's Cheque/ Pay Order	Bank Name / Branch	EMD Amount (in ₹)	EMD Amount (in words)
No. Date:			

Date: _____
Place: _____

Signature of the authorised Signatory
of the firm/company/organization
Official Stamp/Seal

* Interlineations/Corrections/Overwriting not allowed

		Switch should support for different type of QoS features for real time traffic differential treatment using: a. Weighted Random Early Detection b. Strict Priority Queuing		
		Switch should support Rate Limiting -Policing and Shaping		
		Switch should support to trust the QoS marking/priority settings of the end points as per the defined policy		
8	**Security**	Switch should support control plane Protection from unnecessary or DoS traffic by control plane protection policy		
		Switch should support for external database for AAA using: a. TACACS+ b. RADIUS		
		Switch should support to restrict end hosts in the network. Secures the access to an access or trunk port based on MAC address. It limits the number of learned MAC addresses to deny MAC address flooding		
		Switch platform should support MAC Sec (802.1AE) encryption		
		VXLAN and other tunnel encapsulation/de-capsulation should be performed in single pass in Hardware		
		Switch should support Role Based access control (RBAC) for restricting host level network access as per policy defined		
		Switch should support DHCP Snooping		
		Switch should support Dynamic ARP inspection to ensure host integrity by preventing malicious users from exploiting the insecure nature		
		Switch should support IPSource Guard to prevents a malicious hosts from spoofing or taking over another host's IP address by creating a binding table between the client's IP and MAC address port and VLAN		
		Switch should support unicast and/or multicast blocking on a switch port to suppress the flooding of frames destined for an unknown unicast or multicast MAC address out of that port		
		Support for broadcast, multicast and unknown unicast storm control to prevent degradation of switch performance from storm due to network attacks and vulnerabilities		
		The Switch should support LLDP.		
		Switch should support Spanning tree BPDU protection		
9	**Manageability**	Switch should support for sending logs to multiple centralized syslog server for monitoring and audit trail		

		Switch should provide remote login for administration using: a. Telnet b. SSHv2		
		Switch should support for capturing packets for identifying application performance using local and remote port mirroring for packet captures		
		Switch must have Switched Port Analyzer (SPAN) with minimum 4 active session and ERSPAN on physical Port channel VLAN interfaces		
		Switch should support for management and monitoring status using different type of Industry standard NMS using: a. SNMP v1, SNMP v2, and SNMP v3 with Encryption		
		Switch should provide different privilege for login into the system for monitoring and management		
		Should have Open APIs to manage the switch through remote-procedure calls (JavaScript Object Notation [JSON or XML) over HTTPS after secure authentication for management and automation purpose.		
		The Switch Should support monitor events and take corrective action like a script when the monitored events occurs.		
		Should support hardware telemetry from ASIC- • Flow path trace (ingress to egress switch) • Per Flow Hop by Hop packet drop with reason of drop • Per Flow latency (per switch and end to end)		
10	**Availability**	Switch should have provisioning for connecting to 1:1/N+1 power supply for usage and redundancy		
		Switch should provide gateway level of redundancy IPV4 and IPV6		
		Switch should support for BFD For Fast Failure Detection		
11	**Miscellaneous**	Console cable and power cable (As per Indian standards) as per customer requirement to be provided. All Cables shall be factory terminated		
		All Functionalities of Switch shall be IPv6 compliant and it should work on IPv6 Platform without any additional hardware/ software.		
		All the components should be from same OEM		
		Two 10G SR SFP required for uplink		

Annexure – 'G'

PRICE BID

SUB.: Supply and installation of Router, L-2 Switch (48 Ports) and L-3 (48 Ports) Swtiches with 5 years on-site comprehensive warranty with back to back support from OEM for Disaster Recovery Site at Madurai Bench of Madras High Court, Tamil Nadu

Name of the Firm: _____

Address of the Firm: _____

Name of the person *(authorised to sign the tender document)*: _____

Contact No.: _____ **Email Address:** _____

Description of the Product	Unit Price offered (with-out taxes) in ₹	Tax Rate (%)	Total Price offered (incl. taxes) in ₹	Under - taking furnished (Yes/No)	Validity of Rates (180 days or more)	Delivery schedule	Remarks (if any)
A	B	C	D	E	F	G	H
Router Make: _____ Model: _____							
L2 Switch (48 ports) Make: _____ Model: _____							
L3 Switch (48 Ports) Make: _____ Model: _____							
Total							

Total Price as per column 'D' in ₹ _____
words _____

EMD Details

EMD instrument by way of DD/ Banker's Cheque/ Pay Order	Bank Name / Branch	EMD Amount (in ₹)	EMD Amount (in words)
No. Date:			

Date: _____
Place: _____

Signature of the authorised Signatory
of the firm/company/organization
Official Stamp/Seal

* Interlineations/Corrections/Overwriting not allowed

Annexure – 'H'

PRICE BID

SUB.: Award of AMC of existing 1611 nos. of LAN points, 37 Nos. Rack with power strip, FAN along with one technician to manage these hardwares in High Court of Delhi at New Delhi

Name of the Firm: _____

Address of the Firm: _____

Name of the person *(authorised to sign the tender document)*: _____

Contact No.: _____ **Email Address:** _____

Description of the Product	Price offered (without taxes) in ₹	Tax Rate (%)	Total Price offered (incl. Taxes) in ₹	Under-taking furnished (Yes/No)	Validity of Rates (180 days or more)	Remarks (if any)
A	B	C	D	E	F	G
AMC of Hardware i.e. 1611 nos. of LAN Points, 37 Nos. of Rack with power strips & FAN etc.						
Cost of Technician for 1 year						
Total						

Total Price as per column 'D' in ₹ _____
words _____

EMD Details

EMD instrument by way of DD/ Banker's Cheque/ Pay Order	Bank Name / Branch	EMD Amount (in ₹)	EMD Amount (in words)
No. Date:			

Date: _____
Place: _____

Signature of the authorised Signatory
of the firm/company/organization
Official Stamp/Seal

* Interlineations/Corrections/Overwriting not allowed

Annexure – 'I'

UNDERTAKING

SUB.: Supply and installation of Switches & its passive network components and AMC of existing LAN points and its related hardware with one technician to manage these hardware in High Court of Delhi at New Delhi

I/We undertake that neither the firm **M/s.** _____ _____ nor its Partner/Director/Proprietor {name of all owner(s)} _____ has/have been blacklisted/banned and its Business dealings with the Central / State Government / Public Sector Undertaking / Autonomous Bodies has/ have been banned / terminated on account of poor performance/conduct.

I/We also undertake that all the terms and conditions of the instant Tender Notice are acceptable to me/us.

I/we also undertake that in case the supply is not found to be in conformity with the purchase order or any other distortion, the whole supply will be taken back at the cost of the firm with replacement of the items within 3 days.

I/we further undertake that I/we have confirmed and correctly applied the HSN Code of the required item and its corresponding applicable GST rate as on date with sole responsibility.

Signature of the authorised
Signatory of the firm/company/organization
Official Stamp/Seal

Date: _____

Place: _____

Annexure – 'J'

SUB.: Supply and installation of Switches & its passive network components and AMC of existing LAN points and its related hardware with one technician to manage these hardware in High Court of Delhi at New Delhi

[AFFIDAVIT ON RS.10/- NON JUDICIAL STAMP PAPER DULY NOTORIZED BY NOTARY PUBLIC AFFIXING RS.5/- NOTARIAL STAMP]

I, _____, S/o Shri/Smt._____, Resident of _____ _____ Partner/Director/Proprietor of M/s._____ solemnly affirm/ authorised to solemnly affirm on behalf of M/s._____ and state as under:

1. That M/s._____ is exclusively engaged in supply of Goods in Delhi/NCR Region and not making any inter-state supply.

2. That the turnover of M/s._____ was less than Rs. 40 lakh in the financial year 2024-25.

3. That the turnover of M/s. _____ has not crossed the 'threshold exemption limit' of Rs. 40 lakh in the current financial year 2025-26.

4. That I_____, on behalf of M/s._____ solemnly undertake that at the point of time the turnover of the firm will cross the threshold exemption limit of Rs.40 lakh, M/s._____ will be registered under GST Act and will comply the provisions mentioned in the GST Act.

5. That M/s. _____claiming exemption to be registered under GST Act, hence not mentioning GST rate percentage in the financial bid.

6. That M/s._____, if declared eligible in the tender process will claim only the net price exclusive of GST.

DEPONENT

VERIFICATION

Verified at _____ on this _____ day of_____, 2025 that the contents of the above affidavit are true and correct to the best of my knowledge and that nothing material has been concealed there from.

DEPONENT