HIGH COURT OF MADHYA PRADESH: JABALPUR

// CLARIFICATION //

No. Reg(IT)(SA)/2018/148   **Jabalpur, Dated: 29/01/2018**

Subject:- The matter relates to publish the clarification / query of the Pre-Bid meeting dated: 16th January, 2018 for the Tender No. Reg (IT) (SA)/2018/ 01, Dated:02.01.2018 regarding Local Area Networking work at High Court and Subordinate Courts in the State of Madhya Pradesh..

Ref: - Pre-Bid Meeting Dated: 16th January, 2018 at 11:30 AM in the High Court of Madhya Pradesh, Jabalpur.

Reply / clarification to the pre-bid queries

S.No.	Page No. & Clause No.	Description	Query of the bidder	Reply / clarification to the query
1	Page No. 12, Clause no. 8.1 items with details (bill of material)	Point No. 6: fiber Optic outdoor armoured cable Multi mode (SM) (Per Meter). ii. 12 Core: 3M / finolex / Fujitsu / D-Link / Legrand	Please add Equivalent brand of repute word also.	No change
2	Page No. 14, Clause No. 8.1 items with details (bill of material)	Point No. 13: Optical Fiber Patch Cord, MM, SC to LC (each) iii. 20 meter : 3M/ finolex/ Fujitsu / D-Link/ Legrand.	Please add Equivalent brand of repute word also.	No change
3	Page No. 15, Clause No. 8.1 items with details (bill of material)	Point No. 16: LIU, 24 Fiber, wall mount enclosure, lockable & fitted with SC/LC couplers & all accessories (each) i. LIU with SC MM coupler: 3M/ finolex/Fujitsu / D-Link / Legrand	Please add Equivalent brand of repute word also.	No change
4	Page No. 11, Eligibility Criteria 5 (h)	Tender document Fee- Rs. 5,000/-	Being a Govt. PSU, Kindly requested to waive-off tender fees for BSNL.	**Yes; M/s BSNL Ltd. and other Government organization has exempted from submission of tender fees.**

5	Page No.10, Eligibility Criteria 5 (g)	Earnest Money Deposit (EMD) – Rs. 3,52,000/-	Being a Govt., PSU, kind requested to waive-off EMD for BSNL.	**Yes; EMD exempted for Government organizations.**
6	Page no. 8, other terms and conditions (XIII)	The successful tenderer will be required to furnish security deposit of 10% of the work order value within 15 days from the date of issue of Work Order	Being a Govt. PSU, kindly requested to waive-off PBG for BSNL	**No change. Performance bank guarantee is to be submitted by the qualified / successful bidder.**
7	Page no. 08, other terms and condition (I)	The bidder shall complete the installation of Local Area network or other related work within one month.	Should be three month.	**The bidder shall complete the work after receiving purchase order / work order within the period of 60 days.**
8	Page no. 11, 5 Eigibility Criteria ii (I)	The valid ISO 9001 certificate of the bidder in the field of LAN and other Network work	As BSNL is not only a fully owned (100%) Govt. of India Company but the foremost and prime telecom service provider in India with excellent track record of maintaining transparency and financial jurisprudence. BSNL is known for maintaining quality standards in all its installations and deployments having and Independent Quality Assurance and Inspection Circle with its branches throughout the country to continuously watch for quality and maintenance in its network. Hence BSNL should have no need of any certification from any third agency to show its ability and performance. Apart from above Central Vigilance Commission also guides (vide No. 12-02-1-CTE-6 dated: 17.12.2002)- not to follow discriminatory pre-qualification ceiteria incorporated in the tender by putting ISO clause. Therefore, you are requested to either give exemption to BSNL in this clause or allow certification of any member of consortium in this clause.	**Yes; M/s BSNL / Government of India / M.P. Government organization are exempted for submission of ISO certification as per the tender document.**
9	Page no. 10, Eligibility Criteria 5(g)	Earnest Money Deposit (EMD) Rs. 3,52,000/- (Rupees Three Lakh	There is difference in figure and work in EMD amount.	**Yes; EMD deposit is Rs. 3,50,000/- (Rupees Three Lakh Fifty Thousand)**

		Fifty Thousand Only)		
10	**Page no. 18,** Bill of Material points 8.1 **50 to 58**	Switches specification	**Specification required instead of OEM name**	**Yes; specifications are mentioned for switch types in the clarifications.**
11	**Page no. 7,** Other terms and conditions 4(i)	Work period one month	Please change it to at least 120 days	**The bidder shall complete the work after receiving purchase order / work order within the period of 60 days.**
12	**Page No. 12 , Point No. 5 & 6, RFP talks about MM & SM cable**	-	In this it will be good to specify/recommend distance of cable as MM supports upto 2 Km and SM supports more than 2 Km. SM'S Converters are costly as compare to MM. If we will specify distance then we can recommend and quote accordingly. Pls mention the same in commercial sheet, if require	**Distance shall be within the parameter of 2 kilometer. Therefore, MM shall be required.**
13	Point: No 12 of page no 14 talks about MTRJ	-	MTRJ is currently major out of sale. It is used for old deployment and difficult to get for AMC. In this case we recommend going for replacement instead of maintenance of old work which will also help us to match with current technology & work. Pls mention the same in commercial sheet, if require	**Yes; MTRJ is required for old networks (at the time of maintenance work).**
14	Point: No 18 of page no 16 talks about CAT 6A	-	CAT 6A supports 10 G & CAT6 supports 1 G. Cost of both is different along with accessories. Pls recommend specific and mention the same in commercial sheet, if require	**At present CAT 6 cable is required for LAN network. Therefore, please quote accordingly.**
15	Point: No 36 of page no 17	talks about Fibre Optics Cable Router Marker	Please describe marker. Ex. Pipe/ Metal/Rock.Pls mention the same in commercial sheet, if require	**Proper marking should be there in the form of pipe as per the directions of the High Court.**
16	Point: No 50 to 58 of Page No 18	-	1) Scope of Work 2) Specification. Pls mention the same in commercial sheet, if require	**The requirement is of controller based access points for wireless network with all required accessories.**
17	Point: No 57 & 58 of	-	Pls specify requirement Ex 10/100 or 100/1000	**Should support 10/100/1000**

	page no 18		Support. Pls mention the same in commercial sheet, if require	**Ethernet to 10/100/1000 fiber Onsite support**

The following are the detailed specifications of the network switches as per details given below:-

(Item no. 50).

S. No.	8 port Network switches (Non-manageable)	Technical compliance (Yes / No)
1	No. Of 10/100/1000 Mbps Base T Ports 8	
2	Support Entries In The MAC Table 2000	
3	Minimum Switching Capacity 1.6Gbps	
4	Minimum Forwarding capacity 1.4 Mbps	
5	Should have QoS, Loop detection, Jumbo frame(9216),feature	
6	Operative temperature 0 to 40 degree C	
7	Should be under Metal housing	
8	Onsite warranty	

(Item no. 51)

S.No.	*24 port Ethernet managed enterprise series switch with all accessories and Power over Ethernet (PoE)	Technical compliance (Yes / No)
1	Switch OEM should be in the Gartner's Leaders or Challengers or visionary quadrant for Wired and Wireless LAN Access Infrastructure published in 2017 or later	
2	Switch should be 1RU with minimum 24 nos. 10/100/1000 Base-T ports with PoE+ capability and minimum 370W of PoE Power and additional 4 nos. SFP uplinks ports.	
3	SFP modules asked in S/N no. 56 should be from same OEM	
4	Switch should support (excluding uplinks) for minimum 56 Gbps of stacking bandwidth with dedicated stacking ports and cables with minimum 8 switch in stack.	
5	Switch should have internal power supply. Should support external/internal redundant power supply.	
6	Switch shall have minimum 88 Gbps of switching fabric and 65 Mpps of forwarding rate.	
7	Shall have minimum 16 K MAC Addresses and 250 active Vlans.	
8	Should support 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.	
9	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.	
10	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, NTP, RADIUS and TACACS+ .	
11	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, Spanning tree root guard.	
12	Switch should support IPv6 Binding Integrity	

S.No.		
	Guard, IPv6 Snooping, IPv6 RA Guard, IPv6 DHCP Guard, IPv6 Neighbor Discovery Inspection and IPv6 Source Guard.	
13	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	
14	Switch must have support for L3 functionality like static routing, RIP, PIM, OSPF and PBR from Day1	
15	Switch should support application visibility and traffic monitoring with minimum 12 K netFlow/sflow/jflow entries.	
16	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment.	
17	Switch shall conform to 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.	
18	Switch should be tested and certified for EAL/NDPP or above under Common Criteria Certification.	
19	Switch should be IPv6 logo ready Certified.	

(Item No.52)

S.No.	*24 port Ethernet managed enterprise series switch with all accessories*	Technical Compliance (Yes / No)
1	Switch OEM should be in the Gartner's Leaders or Challengers or visionary quadrant for Wired and Wireless LAN Access Infrastructure published in 2017 or later	
2	Switch should be 1RU with minimum 24 nos. 10/100/1000 Base-T ports and additional 4 nos. SFP uplinks ports.	
3	SFP modules asked in S/N no. 56 should be from same OEM	
4	Switch should support (excluding uplinks) for minimum 56 Gbps of stacking bandwidth with dedicated stacking ports and cables with minimum 8 switch in stack .	
5	Switch should have internal power supply. Should support external/internal redundant power supply.	
6	Switch shall have minimum 88 Gbps of switching fabric and 65 Mpps of forwarding rate.	
7	Shall have minimum 16 K MAC Addresses and 250 active Vlans.	
8	Should support 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.	
9	Shall have 802.1p class of service, marking, classification, policing and shaping. Should support strict priority queuing.	
10	Switch should support management features like SSHv2, SNMPv2c, SNMPv3, NTP, RADIUS and TACACS+ .	
11	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source	

S.No.		Technical compliance (Yes / No)
	guard, BPDU Guard, Spanning tree root guard.	
12	Switch should support IPv6 Binding Integrity Guard, IPv6 Snooping, IPv6 RA Guard, IPv6 DHCP Guard, IPv6 Neighbor Discovery Inspection and IPv6 Source Guard.	
13	Should support 802.1x authentication and accounting, IPv4 and IPv6 ACLs and Dynamic VLAN assignment.	
14	Switch must have support for L3 functionality like static routing, RIP, PIM, OSPF and PBR from Day1	
15	Switch should support application visibility and traffic monitoring with minimum 12 K netFlow/sflow/jflow entries.	
16	Switch shall conform to UL 60950 or IEC 60950 or CSA 60950 or EN 60950 Standards for Safety requirements of Information Technology Equipment.	
17	Switch shall conform to 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.	
18	Switch should be tested and certified for EAL/NDPP or above under Common Criteria Certification.	
19	Switch should be IPv6 logo ready Certified.	
20	Switch OEM should be in the Gartner's Leaders or Challengers or visionary quadrant for Wired and Wireless LAN Access Infrastructure published in 2017 or later	

(Item No. 53)

S.No.	*24 port Ethernet managed enterprise series switch with all accessories	Technical compliance (Yes / No)
1	Switch OEM should be in the Gartner's Leaders or Challengers or visionary quadrant for Wired and Wireless LAN Access Infrastructure published in 2017 or later	
2	The switch should have minimum 24 x 10/100 Mbps Ethernet Ports and 2 dual-purpose port (10/100/1000 or SFP). Switch should have fans for proper cooling.	
3	SFP modules asked in S/N no. 56 should be from same OEM	
4	At least 16 Gbps Forwarding bandwidth and 6 Mpps forwarding rate	
5	DRAM : 128MB & Flash : 64MB	
6	Configurable up to 8000 MAC addresses.	
7	IEEE 802.1Q VLAN encapsulation. Upto 250 VLANs should be supported. Support for 4000 VLAN IDs. Centralized VLAN Management. VLANs created on the Core Switches should be propagated automatically.	
8	IEEE 802.1d, 802.1s, 802.1w, 802.3ad. Link Aggregation Protocol (LACP)	
9	Spanning-tree feature to prevent other edge switches becoming the root bridge.	
10	IGMP snooping v3, Support for upto 250 IGMP Groups. IGMP filtering.	
11	Support for Detection of Unidirectional Links (in	

S. No.		Technical compliance (yes / no)
	case of fiber cut) and to disable them to avoid problems such as spanning-tree loops.	
12	The Switch should be able to discover the neighboring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.	
13	Per-port broadcast, multicast, and storm control to prevent faulty end stations from degrading overall systems performance.	
14	Local Proxy Address Resolution Protocol (ARP) to work in conjunction with Private VLAN Edge to minimize broadcasts and maximize available bandwidth.	
15	Multicast VLAN registration (MVR) to continuously send multicast streams in a multicast VLAN while isolating the streams from subscriber VLANs for bandwidth and security reasons.	
16	Support for RFC 1492 - TACACS+, RFC 2463 - ICMP IPv6, RFC 2373 - IPv6 Aggregatable Addrs, RFC 2461 - IPv6 Neighbor Discovery and RFC 2462 - IPv6 Autoconfiguration	
17	Min 500 ACL entries should be supported.	
18	Four egress queues per port to enable differentiated management.	
19	SNMP v1, v2c, and v3 and Telnet interface support delivers comprehensive in-band management, and a CLI-based management console provides detailed out-of-band management.	
20	Switch shall conform to 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. Reduction of Hazardous Substances, CE Marking.	

(Item No. 54)

S. No.	*24 port Ethernet managed enterprise series switch with all accessories*	Technical compliance (yes / no)
1	Switch OEM should be in the Gartner's Leaders or Challengers or visionary quadrant for Wired and Wireless LAN Access Infrastructure published in 2017 or later	
2	The switch should have minimum 24 x 10/100 Mbps Ethernet IEEE 802.3af Ports and 2 dual-purpose port (10/100/1000 or SFP). Minimum 370W of PoE Power. Should have fans for proper cooling.	
3	SFP modules asked in S/N no. 56 should be from same OEM	
4	At least 16 Gbps Forwarding bandwidth and 6 Mpps forwarding rate	
5	DRAM : 128MB & Flash : 64MB	
6	Configurable up to 8000 MAC addresses.	
7	IEEE 802.1Q VLAN encapsulation. Upto 250 VLANs should be supported. Support for 4000 VLAN IDs. Centralized VLAN Management. VLANs created on the Core Switches should be propagated automatically.	

S.No.		Technical compliance
8	IEEE 802.1d, 802.1s, 802.1w, 802.3ad. Link Aggregation Protocol (LACP)	
9	Spanning-tree feature to prevent other edge switches becoming the root bridge.	
10	IGMP snooping v3, Support for upto 250 IGMP Groups. IGMP filtering.	
11	Support for Detection of Unidirectional Links (in case of fiber cut) and to disable them to avoid problems such as spanning-tree loops.	
12	The Switch should be able to discover the neighboring device of the same vendor giving the details about the platform, IP Address, Link connected through etc, thus helping in troubleshooting connectivity problems.	
13	Per-port broadcast, multicast, and storm control to prevent faulty end stations from degrading overall systems performance.	
14	Local Proxy Address Resolution Protocol (ARP) to work in conjunction with Private VLAN Edge to minimize broadcasts and maximize available bandwidth.	
15	Multicast VLAN registration (MVR) to continuously send multicast streams in a multicast VLAN while isolating the streams from subscriber VLANs for bandwidth and security reasons.	
16	Support for RFC 1492 - TACACS+, RFC 2463 - ICMP IPv6, RFC 2373 - IPv6 Aggregatable Addrs, RFC 2461 - IPv6 Neighbor Discovery and RFC 2462 - IPv6 Auto configuration	
17	Min 500 ACL entries should be supported.	
18	Rate limiting should be provided based on source and destination IP address, source and destination MAC address, Layer 4 TCP and UDP information, or any combination of these fields, using QoS ACLs (IP ACLs or MAC ACLs), class maps, and policy maps.	
19	SNMP v1, v2c, and v3 and Telnet interface support delivers comprehensive in-band management, and a CLI-based management console provides detailed out-of-band management.	
20	Switch shall conform to 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. Reduction of Hazardous Substances, CE Marking.	

(Item No. 55)

S.No.	Indoor Access Point for Wireless Network With all required accessories	Technical compliance (Yes / No)
1	Access Points proposed must include radios for 2.4 GHz and 5 GHz with 802.11ac Wave 2.	
2	Should have one RJ-45 auto-sensing 10/100/1000 Mbps LAN port and a RJ-45 console port	
3	An access point must include a standard OEM provided Mounting brackets for mounting on Ceiling or Roof top.	
4	Access Point shall support Console port that	

	uses Standard Port (RJ-45) type connection	
5	Must have at least 3 dBi Antenna gain on each radios	
6	1.9 Gbps to 1 Gbps	
7	Must support 4x4:4 spatial streams for both 802.11ac and 802.11n client	
8	Must support minimum of 22dbm of transmit power in both 2.4Ghz and 5Ghz radios. And should follow the WPC norms.	
9	Must incorporate radio resource management for power, channel, coverage hole detection and performance optimization	
10	Must have -97 dB or better Receiver Sensitivity.	
11	Must support Proactive Key Caching and/or other methods for Fast Secure Roaming.	
12	Must support Management Frame Protection.	
13	Should support locally-significant certificates on the APs using a Public Key Infrastructure (PKI).	
14	Access Points must support Hardware-based encrypted user data and management traffic between controller and Access point for better security.	
15	Must support the ability to serve clients and monitor the RF environment concurrently.	
16	Same model AP that serves clients must be able to be dedicated to monitoring the RF environment.	
17	Must be plenum-rated (UL2043).	
18	Support at least 8 WLANs per AP for SSID deployment flexibility.	
19	The APs must support centralized wireless mode with the use of a controller, or have controller functionality to control minimum 15 access points on same LAN (without any license) but the APs must also support operation in autonomous mode without the presence of any controller, when needed	
20	Must support telnet and/or SSH login to APs directly for troubleshooting flexibility.	
21	Must support Power over Ethernet, local power(DC Power), and power injectors.	
22	802.11e and WMM	
23	Must support QoS and Video Call Admission Control capabilities.	

(Items No.56)

S.No.	SFP modules	Technical compliance (Yes / No.)
1	Should support both SM and MM fiber at minimum 1 GBPS. Should be same OEM as 51 to 54	

Important points / Note:-

1. **The Registrar General, High Court of Madhya Pradesh has full rights to accept or reject any bid, without assigning any reason.**

2. *All prospective bidders are requested to submit the bid and if there is <u>any deviation</u> in the specification, please mention the same in the deviation statement sheet.*

3. *The above clarifications / reply to the pre-bid are for all the prospective bidders' for their tender reference and necessary action.*

4. *All future **correspondence/ clarifications/ addendum/ corrigendum** shall be available on the website of the High Court of Madhya Pradesh i.e. www.mphc.gov.in , Government tender portal www.tenders.gov.in and e-procurement portal https://www.mpeproc.gov.in .*

5. *The shortlisted vendor has to complete the LAN work within the fixed time frame.*

6. *The payment shall be made to successful bidder, only after submitting requisite document to the High Court as per the tender document.*

7. *The network switches to be compatible with the existing LAN infrastructure of the High Court and District Courts .*

8. *All the quoted products make and model shall be finalized by the committee of the High Court.*

Sd/-

REGISTRAR GENERAL