

CORRIGENDUM No 3 TO RFP NO MPSEDC/MPSWAN/2007-08/01

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9		Bids can be submitted up to 3.00 PM on 31st May 2007. EMD & Pre-Qualification Bids will be opened on 31st May 2007 at 4.00 PM in the presence of the representatives of the bidder who choose to attend the opening of the bids. Pre-qualified bids will be taken up for further processing and the Technical Bids of pre-qualified bidders will be opened in the presence of the qualified bidders / representatives on separate date and time which will be notified separately. Further discussion / interface will NOT be held with the bidders whose bids have been Disqualified / Rejected. MPSEDC reserves the right to accept or reject in part or full any or all the offers without assigning any reasons whatsoever.	Bids can be submitted up to 3.00 PM on 25th September 2007. EMD & Pre-Qualification Bids will be opened on 25th September 2007 at 4.00 PM in the presence of the representatives of the bidder who choose to attend the opening of the bids. Pre-qualified bids will be taken up for further processing and the Technical Bids of pre-qualified bidders will be opened in the presence of the qualified bidders / representatives on separate date and time which will be notified separately. Further discussion / interface will NOT be held with the bidders whose bids have been Disqualified / Rejected. MPSEDC reserves the right to accept or reject in part or full any or all the offers without assigning any reasons whatsoever.
15	5.3.6	NOTE: Installation and Commissioning of all the equipment should be done as per laid down procedures of respective OEMs and by authorized persons only.	NOTE: Installation and Commissioning of all the equipment should be done as per laid down procedures of respective OEMs and by authorized persons only. Satisfactory Installation and commissioning certificate from respective OEM or their authorized agencies has to be submitted for first payment.
17	6.1	"Envelope-3" bearing heading "Financial Bid" will be for financial offer and have all pages of Chapter-13 of tender document duly signed/seal by authorized signatory. CD dully sealed in an envelop containing Financial bid content dully sealed & signed.	"Envelope-3" bearing heading "Financial Bid" will be for financial offer and have all pages of Chapter-13 of tender document duly signed/seal by authorized signatory.
19	6.4	In case of a consortium, applicant consortia shall have a valid Memorandum of Understanding (MoU)/ agreement (duly registered) among all the members signed by the Chief Executives/ Authorized Signatories of the companies dated prior to the submission of the bid. The MoU/ agreement shall clearly specify the stake of each member and outline the roles and responsibilities of each member. The MoU/ agreement shall be exclusively for this project and shall be responsible in case of failure by any member.	In case of a consortium, applicant consortia shall have a valid Memorandum of Understanding (MoU)/ agreement (duly registered) among all the members signed by the Chief Executives/ Authorized Signatories of the companies dated prior to the submission of the bid. The MoU/ agreement shall clearly specify the stake of each member and outline the roles and responsibilities of each member. The MoU/ agreement shall be exclusively for this project and shall be responsible in case of failure by any member. Also in case the MOU is not registered at the time of submission of Bid, it has to be registered before signing of Agreement with MPSEDC.
20		The Bidder (or any member of the consortium) in the last 5 years should have successfully executed at least two large WAN projects (each should be of at least 50 locations WAN for a single client) with each project value not less than Rs. 5.00 Crores. The projects executed for bidder's own group of companies or JV companies will not be considered.	The Bidder (or any member of the consortium) in the last 5 years should have successfully executed at least two large WAN projects (each should be of at least 50 locations WAN for a single client) with average project value not less than Rs. 15.00 Crores OR three WAN projects of average project value not less than Rs. 10.00 Crores. The projects executed for bidder's own group of companies or JV companies will not be considered.
21		The OEM vendor for the core networking products, i.e. Routers and Switches should be profitable as on 31st March 2007. Auditors report should be furnished.	Deleted

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23	6.5.2	Experience* in implementing projects on BOO/BOOT basis	Experience* in implementing projects on BOO/BOOT basis								
		Number of Projects with a minimum value of Rs 10 Crores on BOO/BOOT basis: (The Bidder having experience in maximum number of projects will be awarded 5 marks all others will be awarded marks proportionately.)	Number of Projects with a minimum value of Rs 10 Crores on BOO/BOOT basis: (The Bidder having experience in two or more number of projects will be awarded 5 marks, all others will be awarded marks proportionately.)								
		Value of Projects executed on BOO/BOOT basis: (The Bidder having executed the largest project in terms of value will be awarded 5 marks all others will be awarded marks proportionately.)	Value of Projects executed on BOO/BOOT basis: (The Bidder having executed project of more than Rs 80 to 100 Crores in terms of value will be awarded 5 marks, > 60 to 80 Crores - 4 Marks, >40 to 60 Crores - 3 marks, >20 to 40 Crores - 2 marks and less than 20 Crores 1 Mark)								
		Professionals in the field of system integration, networking and facility management on payroll of bidder: (The Bidder having maximum number professionals on its pay rolls in India, will be awarded 5 marks all others will be awarded marks proportionately.)	Professionals in the field of system integration, networking and facility management on payroll of bidder: (The Bidder having 401 to 500 or more number professionals on its pay rolls in India, will be awarded 5 marks, 301 to 400 - 4 marks, 201 to 300 - 3 marks, 101 to 200 - 2 marks and less than 100 - 1 mark.)								
		Experience in O&M of NMC of minimum 50 nodes WAN project. (One mark per completed year of above experience subject to maximum of 05 marks)	Experience in O&M of NMC of minimum 50 nodes WAN project. (One mark per completed year per project of above experience subject to maximum of 05 marks)								
		Bidder getting scores above 55 marks will be considered as technically qualified for opening the financial bids.	Bidder getting scores above 60 marks will be considered as technically qualified for opening the financial bids.								
31	7.1	All the proposals will have to be submitted in hard bound form with all pages numbered. It should also have an index giving page information of above documents. Incomplete proposal will summarily be rejected.	All the proposals will have to be submitted in bound form with all pages numbered. It should also have an index giving page information of above documents. Incomplete proposal will summarily be rejected.								
		Additional Point	Optional items given in financial bid will be considered in evaluating the financial bid.								
		Additional Point	The bidder should provide cross reference to manufacturer's specifications/ Data Sheets for each specification of quoted items as per below given format.								
		Additional Point	The Bidder should possess a clear title of ownership of the equipment installed in MPSWAN. MPSEDC should not have any problem in getting the title transferred to itself at the end of contract period or in event of pre-mature termination as fallout of invoking exit clause. In order to comply with this condition the bidder may be required to submit any back to back contract it may have to workout with OEM / vendor, to MPSEDC.								
			<table border="1"> <thead> <tr> <th>Sr No</th> <th>Technical Specification as per Tender.</th> <th>Corresponding OEM Reference</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Sr No	Technical Specification as per Tender.	Corresponding OEM Reference	Remark				
Sr No	Technical Specification as per Tender.	Corresponding OEM Reference	Remark								
35	7.4.1	Intrusion Rs 1,00,000 per incident.	Failure to respond to the intrusion within 30 minutes Rs 1,00,000 per incident.								

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43	Chapter 7	Additional Point	Limitation of Liability: The total liability of the SI arising out of any clause of this contract shall be limited to the total amount payable to the SI during the contract period.
66	8.14.1	All active network components offered shall preferably be from minimal number of manufacturers for easy management of the installation and Integration. In case of more than one brand being offered, NMS and required hardware for management for each to be quoted separately. Integration of these NMS to the existing EMS/ new system being supplied by the bidder should be possible and shall be in the scope of the vendor. For each item/product quoted should be from one OEM only throughout the entire network.	All active network components offered shall preferably be from minimal number of manufacturers for easy management of the installation and Integration. For all equipment offered, NMS and required hardware/Software for management for each should be provided. Integration of these equipments to the Centralized NMS should be possible and shall be in the scope of the vendor. For each item/product quoted should be from one OEM only throughout the entire network. In case any external device is used to comply with the requirements, the same has to be approved by MPSEDC before installation. Installation of additional devices to meet the technical requirements (wherever permitted) should not degrade the performance of the network.
		The Bidder should provide the patches and upgrades of OS (in the same version) free of cost for contract period for the quoted Router, Access router, IPS, firewall, Switches and Antivirus software. In case the software patches are not available free of cost, the cost of the same should be included in the cost of equipment/software.	The Bidder should provide the patches and updates of OS (in the same version) free of cost for contract period for the quoted Router, Access router, IPS, firewall, Switches, Servers, Applications software, NMS and Antivirus software etc. In case the software patches are not available free of cost, the cost of the same should be included in the cost of equipment/software.
66 & 67	8.14.1	All software licenses should be in the name of MPSEDC and should be a perpetual license, i.e. the software license should not expire after the Contract period.	All software licenses should be in the name of MPSEDC and should be a perpetual license, i.e. the software license should not expire after the Contract period. The software licenses should be comprehensive and no further licenses should be required for MPSWAN operations. The software installed should necessarily be the latest version at the time of actual implementation.
		Additional Point	Liberty is being provided to the SI to either implement Routers with Higher level of ports like Channelized STM-1 in lieu of Channelized E3 or E1 ports. However, SI shall compensate to MPSEDC the extra cost if any is incurred by MPSEDC for procuring consolidated bandwidth on STM-1(in case SI deploys Channelized STM-1 port in the Routers and thereby provisions the last mile by STM-1 Capacity even when Bandwidth Provider can provide the last mile on Channelized E3 circuits) as compared to equivalent Channelized E3.
68	Sr No. 1 (Router T-1)	b) vi) Shall support variety of standard interfaces like Ch-STM1 for CHQ/DHQ aggregation Ch-E3, Ch-E1 for Horizontal office aggregation E3, G.703 1Gigabit SR, LR, ER interfaces 1000BaseSX, 1000Base LX, 1000BaseTX	vi) Shall support variety of standard interfaces like Ch-STM1 for CHQ/DHQ aggregation Ch-E3, Ch-E1 for Horizontal office aggregation the said support may be provided by higher capacity interfaces by the SI. E3, G.703 1Gigabit SR, LR, ER interfaces 1000BaseSX, 1000Base LX, 1000BaseTX
		d) Router Performance i) Shall support high performance traffic forwarding with con-current features like Security, Voice enabled.	d) Router Performance i) Shall support high performance traffic forwarding with con-current features like Security.
		d) Router Performance v) Shall have performance enhancement through hardware based acceleration	Shall have performance enhancement through hardware based acceleration of IP Services like GRE tunneling or equivalent IEEE standard, ACLs, IPSEC VPNs,

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69	Sr No. 1 (Router T-1)	of IP Services like GRE tunneling or equivalent IEEE standard, ACLs, IPSEC VPNs, Firewalling, NAT or equivalent	Firewalling, NAT or equivalent. The said feature can be provided using internal OR external device
		c) Router Interfaces Requirement i) Channelized STM-1 interface – 2 nos ii) STM-1 / Channelized STM – 1 interface – 02 nos iii) Channelized E3 – 2 nos iv) 10/100/1000 Mbps Ethernet ports – 6nos	Router Interfaces Requirement i) Channelized STM-1 interface – 04 nos ii) STM-1 or Channelized STM – 1 interface – 02 nos iii) 10/100/1000 Mbps Ethernet ports – 6nos
		(iv) Display of physical layer line status signals like DCD, DSR, DTR, RTS, CTS on all serial interfaces	Deleted
		h) (i to v) IPSEC with 3DES/AES encryption, GRE Tunneling or equivalent,IPSEC (Site-to-Site) and Remote Access, NAT and Firewall & IPS features	IPSEC with 3DES/AES encryption, GRE Tunneling or equivalent, IPSEC (Site-to-Site) and Remote Access, NAT and Firewall & IPS features. The said feature can be provided by internal or external devices.
		g) Shall provide following QoS Features & Multimedia support i) Classification and Marking: Policy based routing, IP Precedence, DSCP, MPLS exp bits ii) Congestion Management: WRED (Weighted random Early Detection), Priority queuing, Class based weighted fair queuing iii) Traffic Conditioning: Committed Access Rate/Rate limiting iv) Signaling: RSVP v) Link efficiency mechanisms: cRTP, LFI, MLPPP vi) Per VLAN QoS vii) Voice Capabilities • Voice pass-through	g) Shall provide following QoS Features & Multimedia support (Multi media support can be provided by using internal or external devices.) i) Classification and Marking: Policy based routing, IP Precedence, DSCP, MPLS exp bits ii) Congestion Management: WRED (Weighted random Early Detection), Priority queuing, Class based weighted fair queuing iii) Traffic Conditioning: Committed Access Rate/Rate limiting iv) Signaling: RSVP v) Link efficiency mechanisms: cRTP / LFI / MLPPP vi) Per service per VLAN QoS vii) Voice Capabilities • Voice pass-through
		d) (ix) Shall support backplane performance of at least 80Gbps full Duplex	Shall support backplane performance of at least 60Gbps full Duplex
		d) (x) Shall support at least 80 Mpps forwarding performance at Packet size of 64 Byte.	Shall support at least 60 Mpps forwarding performance at Packet size of 64 Byte.
		f) (iv) Multicast routing protocols support : IGMPv1,v2 (RFC 2236), PIM-SM (RFC2362) and PIM-DM, DVMRP, M-BGP	Multicast routing protocols support : IGMPv1/v2(RFC 2236)/v3, PIM-SM (RFC2362) / DVMRP / M-BGP
		h) Shall provide following Security Features Support i) IPSEC with 3DES/AES encryption ii) GRE Tunneling or equivalent iii) IPSEC (Site-to-Site) and Remote Access iv) NAT v) Firewall and IPS features	h) Shall provide following Security Features Support i) IPSEC with 3DES/AES encryption ii) GRE Tunneling or equivalent iii) IPSEC (Site-to-Site) and Remote Access iv) NAT v) Firewall and IPS features Above features can be provided using internal OR external devices
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		(RFC2362) and PIM DM, DVMRP, M-BGP v) Shall support MPLS Provider /Provider Edge functionality	v) MPLS Provider /Provider Edge functionality
70		h) (xvi)Time based ACLs for controlled forwarding based on time of day for offices	Time based ACLs for controlled forwarding based on time of day for offices. The said feature can also be done by scheduling policies.
71	Sr No 2 & 3 (T2 & T3 Router)	Performance Shall support high performance traffic forwarding with con-current features like Security, Voice enabled	Shall support high performance traffic forwarding with con-current features like Security.
		Router Interface Requirements i) Channelized E3. 2 Nos ii) 10/100/1000 Mbps Ethernet ports. 4 nos iii) Channelized E1. 06 nos. iv) E1/Channelized E1 (G 703/V.35). 06 Nos. v) ISDN PRI. 2 nos.	Router Interface Requirements i) Channelized STM 1.- 2 Nos ii) 10/100/1000 Mbps Ethernet ports. 2 Nos iii) Channelized E1. 08 nos. v) ISDN PRI. 2 nos.
		Shall provide following High Availability features Shall support dual-redundant GE connection to Campus LAN Shall support Redundant Power supply Shall support On-line insertion and removal for cards Shall support fast reboot for minimum network downtime Shall support Non-Stop forwarding for fast re-convergence of routing protocols Shall support boot options like booting from TFTP/FTP server, Network node/Hard Disk. Shall support multiple storage of multiple images and configurations Shall support link aggregation using LACP as per IEEE 802.3ad Shall support VRRP or equivalent	Shall provide following High Availability features dual-redundant GE connection to Campus LAN Redundant Power supply On-line insertion and removal for cards fast reboot for minimum network downtime Non-Stop forwarding for fast re-convergence of routing protocols boot options like booting from TFTP/FTP server, Network node/Hard Disk. multiple storage of multiple images and configurations link aggregation using LACP as per IEEE 802.3ad VRRP or equivalent
		Shall Provide Following Protocol Support Multicast routing protocols support : IGMPv1,v2 (RFC 2236), PIM-SM (RFC2362) and PIM-DM, DVMRP, M-BGP	Multicast routing protocols support : IGMPv1/v2(RFC 2236)/v3, PIM-SM (RFC2362) / DVMRP / M-BGP
		Ch-E3, Ch-E1 for BHQ Horizontal office aggregation	Ch-E3, Ch-E1 for BHQ Horizontal office aggregation, the said support can also be provided by higher capacity interfaces if BSNL supports the feature.
		Shall support integrated IP Services like GRE tunneling or equivalent, ACLs, IPSEC VPNs, Firewalling, NAT	Shall support IP Services like GRE tunneling or equivalent, ACLs, IPSEC VPNs, Firewalling, NAT. The said feature can be achieved using internal or external devices.
71 & 72		Shall provide following Protocol Support Shall support IPv6 features Shall support RIPng and OSPFv3 for IPv6 Shall support Routing protocols like RIP ver1 (RFC1058)&2 (RFC 1722 and 1723), OSPF ver2 (RFC2328), BGP4 (RFC1771), IS-IS (RFC1195) Multicast routing protocols support : IGMPv1,v2 (RFC 2236), PIM-SM (RFC2362) and PIMDM, DVMRP, M-BGP	Shall provide following Protocol Support IPv4/IPv6 features RIPng and OSPFv3 for IPv4/IPv6 Routing protocols like RIP ver1 (RFC1058)&2 (RFC 1722 and 1723), OSPF ver2 (RFC2328), BGP4 (RFC1771), IS-IS (RFC1195) Multicast routing protocols support : IGMPv1/v2(RFC 2236)/v3, PIM-SM (RFC2362) / DVMRP / M-BGP

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		Support for IP forwarding Layer 3 Multiprotocol Label Switching (MPLS) VPNs Should support MPLS Class of Service (CoS) Should support MPLS traffic engineering, MPLS DiffServe aware traffic engineering, MPLS Traffic-engineering fast reroute Should support MPLS ping, MPLS traceroute, MPLS traffic-engineering traceroute Should support stacking of multiple MPLS application like MPLS L3 VPN combined with MPLS Traffic-Engineering Shall support CsC functionality with MPLS enabled carrier Shall support IPSEC with 3DES/AES encryption	IP forwarding Layer 3 Multiprotocol Label Switching (MPLS) VPNs MPLS Class of Service (CoS) MPLS traffic engineering, MPLS DiffServe aware traffic engineering, MPLS Traffic-engineering fast reroute MPLS ping, MPLS traceroute, MPLS traffic-engineering traceroute Stacking of multiple MPLS application like MPLS L3 VPN combined with MPLS Traffic-Engineering Shall support additional functionality enabling multiple MPLS enabled carriers IPSEC with 3DES/AES encryption
72		GRE Tunneling, IPSEC (Site-to-Site) and Remote Access, NAT, Firewall and IPS features	GRE Tunneling, IPSEC (Site-to-Site) and Remote Access, NAT, Firewall and IPS features using internal or external devices.
		Shall provide following Multi-media support: Shall support Voice capabilities Voice pass-through Shall support H.323, SIP, MGCP (Can be done using External device) Shall support Voice call processing in the event of WAN link failure to SHQ housing Central call processing Engine. (using internal or external devices). Shall support bandwidth optimization features like Voice Activity Detection, Silence Suppression, Echo cancellation Should not consume more than 14-15Kbps of bandwidth (including overheads) for a single voice over IP call	Shall provide following Multi-media support: (Can be Internal or External) Shall support Voice capabilities Voice pass-through Shall support H.323, SIP, MGCP (Can be done using External device) Shall support Voice call processing in the event of WAN link failure to SHQ housing Central call processing Engine. (Using internal or external devices). Shall support bandwidth optimization features like Voice Activity Detection, Silence Suppression, Echo cancellation Should not consume more than 14-15Kbps of bandwidth (including overheads) for a single voice over IP call
		Security Features: GRE Tunneling IPSEC (Site-to-Site) and Remote Access NAT Firewall and IPS features	Security Features: GRE Tunneling IPSEC (Site-to-Site) and Remote Access NAT or equivalent Firewall and IPS features These features can be provided using internal OR external device.
74	Sr No. 4 and 34(T-4 Router)	Performance Shall provide IP services like GRE tunneling or Equivalent IEEE standard , ACLs, IPSEC , VPNs , Firewall , NAT .	GRE Tunneling, IPSEC (Site-to-Site) and Remote Access, NAT, Firewall and IPS features using internal or external devices.
		Performance ISDN BRI (Can be Internal or External)	ISDN BRI (Can be Internal or External). It has to be ensured that the ISDN Activity should be activated automatically in case of primary link failure and should automatically revert back to original state as soon as primary link comes up without any manual intervention.
		Multicast routing protocols support : IGMPv1,v2 (RFC 2236), PIM-SM (RFC2362) and PIM-DM, DVMRP, M-BGP MPLS VPN and Traffic Engineering support	Multicast routing protocols support : IGMPv1/v2(RFC 2236)/v3, PIM-SM (RFC2362) / DVMRP / M-BGP MPLS VPN and Traffic Engineering support by end of 2008

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75		QOS Features Signalling: RSVP	QOS Features RSVP Signalling for the MPLS traffic control by end of 2008
		Debug , Alarms and Diagnostics :	Deleted
		Display of physical layer line status signals like DCD, DSR, DTR, RTS, CTS on all serial interfaces	
		Debug , Alarms and Diagnostics :	Debug , Alarms and Diagnostics :
		MPLS OAM	MPLS OAM support by end of 2008
		Should be able be integrated with other NMS applications like HP, CA, IBM etc.	Should be able be integrated with other NMS applications.
	Multi-media support: Shall support Voice capabilities Voice pass-through Shall support H.323, SIP, MGCP (Can be done using External devise as mentioned earlier) Shall support Voice call processing in the event of WAN link failure to SHQ housing Central call processing Engine Shall support bandwidth optimization features like Voice Activity Detection, Silence Suppression, Echo cancellation Should not consume more than 14-15Kbps of bandwidth (including overheads) for a single voice over IP call	Shall provide following Multi-media support: (Can be Internal or External) Shall support Voice capabilities Voice pass-through Shall support H.323, SIP, MGCP (Can be done using External device) Shall support Voice call processing in the event of WAN link failure to SHQ housing Central call processing Engine. (Using internal or external devices). Shall support bandwidth optimization features like Voice Activity Detection, Silence Suppression, Echo cancellation Should not consume more than 14-15Kbps of bandwidth (including overheads) for a single voice over IP call	
	Security Features: GRE Tunneling or equivalent IPSEC (Site-to-Site) and Remote Access or equivalent NAT or equivalent Firewall and IPS feature	Security Features: GRE Tunneling IPSEC (Site-to-Site) and Remote Access NAT or equivalent Firewall and IPS features These features can be provided using internal OR external device.	
77	Sr No 5 Switch at T-1	The firewall throughput performance should be at least 5Gbps and scalable to 7Gbps.	The firewall throughput performance should be minimum 4 Gbps with option for scalability.
		Dynamic Trunking Protocol (DTP) or equivalent VLAN Trunking Protocol or equivalent	Deleted
		Switch Port requirement: i) 10/100/1000 Mbps port. 48 Nos. ii) 10/100 Mbps Ethernet port. 48 Nos.	Switch Port requirement: i) 10/100/1000 Mbps port: 48 Nos. ii) 10/100 Mbps Ethernet port: 48 Nos. iii) Standard Fiber / uplink port: 04 Nos.
		PIM Sparse Mode/ Dense Mode, Bi-directional PIM	PIM Sparse Mode/ Dense Mode/ Bi-directional PIM
80	Sr No 6,7	30 Gbps minimum forwarding bandwidth at Layer 2 and Layer 3 switching.	Minimum 30 Gbps forwarding bandwidth at Layer 2 switching.

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	and 8 switches at T-2 to T-4	Stack Auto-configuration and minimum 30 Gbps stack interconnect throughput.	Deleted
		Support for 10,000 MAC addresses, 500 unicast routes, 10 IGMP groups and multicast routes.	Support for 10,000 MAC addresses
		PoE on all ports	PoE on all ports via internal/external support
		Stacked Units should behave as single spanning-tree node. Link aggregation across the stack.	Deleted
		IP Routing - RIP, RIPv2, OSPF, Policy based Routing PIM Sparse / dense mode Ipv6 routing support in hardware.	Deleted
		The integrated GUI interface should allow the management of up to 8 interconnected switches through a single IP address, without the limitation of being physically located in the same wiring closet.	The integrated GUI interface should allow the management of up to 8 interconnected switches through a single IP address.
		48 port 10/100/1000 BaseT switch	The switch will have following ports: 10/100/1000 baseT ports – 48 Nos including following : 1. 1000 BaseT uplink ports– 2 Nos 2. Standard Fiber / uplink Ports – 2 Nos
82	Sr No 13, 14, 15 & 16:- PC T-1, T-2, T-3 and T-4	Memory PC-5300 (DDR2 . 667 MHz)	Memory 1 GB, PC-5300 (DDR2 . 667 MHz) RAM
		Operating System Pre Loaded Windows Vista Professional or Linux	Operating System Pre Loaded Windows Vista business (X86) (latest version at the time of installation) or Linux (latest version at the time of installation)
83	Sr No. 17 (NMS at T-1)	Carrier-grade scalability, which should scale with SWAN's Network.	The NMS must have scalability directly proportional to the scale of the SWAN's Network for the purpose of managing large SWAN environments. This may be achieved through segmentation of the network and distribution of management load.
		Additional Point	The central NMS application is required to seamlessly integrate with the NMS tools of various equipments used in MPSWAN and perform the operations as described in the Network Monitoring & Management requirements. Any additional element managers/tools/applications required to perform the described operations should be quoted as a part of the NMS.
87		Tool for SLA Management should be available with the NMS. SLA management must include monitoring & reporting. Report w.r.t up time /down time should be available for the specified period.	Tool for SLA Management should be available with the NMS. SLA management must include monitoring & reporting. Report w.r.t up time /down time should be available for the specified period POP wise.
		Additional Point	Required servers for the NMS software should be supplied as per specifications given for item No. 18 i.e. Servers (At T-1) along with required OS for the NMS software.

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88	Sr No 18, Servers at T-	Memory – PC2-5300 (DDR2, 667 MHz), Advanced ECC, Mirrored memory 2 GB expandable up to 32 GB	Memory – PC2-5300 (DDR2, 667 MHz), Advanced ECC, 4 GB expandable up to 32 GB
		RAID controller 3 GB SAS controller with 256 MB Cache with battery backup	RAID controller 3 Gb SAS controller with 256 MB Cache with battery backup
		Expansion Slots 6 Nos active PCI slots, (4 Nos Active PCI express x8 & 2 Nos Active PCI x2 64 bit, 266 MHz)	Expansion Slots 6 Nos active PCI slots, (Combination of PCI, PCI-e and PCI-x)
		Back up – DAT drive 40 GB with backup software for scheduled managed backup and disaster recovery till last backup	Back up – DDS5 DAT drive Minimum 36 GB with backup software for scheduled managed backup and disaster recovery till last backup
89		The operating system should provide capability for Internet Proxy Services	Deleted
		The operating system should be capable of managing public key infrastructure (PKI). Client authentication through Secure Sockets Layer (SSL) and Transport Layer Security (TLS) and secure connectivity using Internet Protocol Security (IPSec). The operating system should have functionality for encrypting, check summing, and 'signing' data and control messages. Operating system should include support for file system ACLs (Access Control Lists), PIE, Exec Shield allowing proper access control to all files and devices.	The operating system should be capable of managing public key infrastructure (PKI). Authentication by the operating system should be based on Open Standards. Operating system should also include support for file system ACLs (Access Control Lists) to effectively access control to all files and devices. OS should also have enhanced inbuilt security feature to tackle individual and mass attacks.
		Additional Point	The Operating System should have built in utilities to perform system administration tasks for the services such as messaging, AAA etc. from a single point. The Operating System should have capabilities to install & run all the leading Databases & Applications.
89		Directory services Additional Point	The directory Services should have policies to provide restriction/ management of users/computers The directory Services should provide support for X.500 naming standards.
90		Replication to auto-tune based in network bandwidth available	Replication in the directory should be designed to maximize directory consistency and minimize the impact to network traffic. Directory Service replication should either be optimized out of the box or should have provision for optimization if it is not already done.
		Support for partial and fractional replication	Deleted
		Support on the fly modifications to access controls, knowledge references and tracing configurations.	Deleted
		Support Online backup, restore, import, export, and re-indexing.	Should support Online backup and restore, for fail safe and recovery purposes.
		Comprehensive support for LDAPv3 including extensions virtual list views, persistent search, server-side sorting, password policy and to Get Effective Rights operation.	Comprehensive support for LDAPv3
		Support rules based access control and rights inheritance.	Should support role based access control for managing authorization.
		Support SASL Auth, TLS/SSL, X.509 Certs and PKCS11 devices.	Support SASL Auth, TLS/SSL, X.509 Certs .
Unlimited Entries possible at no extra cost	Directory services should support million entries and million objects with no extra costs.		

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		OCSP Manager, to run on multiple systems (such as a cluster configuration) to support delegated registration authorities and increased scalability	Deleted
		Encrypts communication between all components using SSL client authentication with optional hardware acceleration for increased performance	Online issue of certificates should be done through secure communications.
91		Provides a customizable Enterprise Security Client that provides a user interface for desktop key management tasks and facilitates.	Deleted
		Use of Global Platform protocols for communication between a Registration Manager and individual user tokens.	Deleted
		Allows clients and servers to communicate via Online Certificate Status Protocol (OCSP) for revocation checking	
		Includes a built-in OCSP responder that is tightly integrated with the entire Certificate System architecture.	
		Supports certificate requests using standards such as PKCS #11, CMRF (with proof of possession), and CMC.	Supports certificate requests using standards such as CMRF (with proof of possession), and CMC.
92		Specifications of messaging solution:	Deleted
		3 - Should support multiple operating systems	
		13 Support for dynamic groups for mailing lists. 14 Should have Fsupport for integrated authentication mechanism across operating system, messaging services.	13 Support for updation of address book with address of recent contact. 14 Should support standard authentication like LDAP.
93		18 Should support Kerberos authentication between a front-end and back-end server. To help ensure that credentials are secure, Messaging Server should use Kerberos delegation when sending user credentials between a front-end server, running services such as Web Access or Mobile Access, and a back-end server such as the mailbox store.	18 Should support Kerberos or SSL based authentication.
		Specifications of messaging solution:	
		Additional Point	Messaging Solution Should Provide Integration with Unified Messaging Solution Proposed or Should provide Unified Messaging Capabilities. The Messaging Solution should provide support for Mail Client & Web Client and be able to provide access from Mail Client & Web Client at no additional cost Should have Mobile Device Support for all mobile OS. Mail Anywhere capability to allow user access his email securely from internet without using VPN reducing the load on the WAN. Hindi language support out-of-box over Web and mail Client. Messaging Solution Should Provide & Support Hardware Clustering & Network Load Balancing for Future Scalability. Should support instant messaging/chat
95	Sr No.19 (RAS at T-1)	Should have at least two interface module slots free for accommodating future expansion and growth without replacing the router.	Should have at least two interface module slots free for accommodating future expansion and growth without replacing the unit.
		Display of physical layer line status signals like DCD, DSR, DTR, RTS, CTS on all serial interfaces	Deleted
		At least 2 PRI ports.	At least 4 PRI ports upgradeable upto 8 PRI ports and 02 nos. fast Ethernet ports (10/100 mbps).

Page No	Clause/S. No.	Original Statement/Specifications As per tender Document	Statement/Specification vetted by DIT/GoI
97	Sr No. 20 (IPS at T-1)	Technical Specifications for IPS at State HQ (T1) (In-line, Sensor + manager etc) Additional Point	Technical Specifications for Unified Security Management at T-1(IPS) IPS should operate on IN-LINE mode Work in wire-speed
99	Sr No. 22 (VoIP Xchange at T-1)	The IP Telephony system at the State HQ should be fully redundant solution with NO single point of failures & should be capable of providing 1:1(server to server) redundancy to all IP phones in the State WAN setup. This would ensure reduction in downtime for the end devices/phones. The bidder should provide a detailed description of the call flow of their system. Browse to another Cisco Unity Administrator on a networked Cisco Unity server	Deleted Deleted
107	MCU (At T-1)	Standards: Audio: G.723.1, G.711, G.728, G.722, G.722.1 and AAC-LD 64k PBX Features: Multi-point conferencing Call Transfer, Call Pickup, Call Forward Dial Plans: Dial by alias, Area Code, Gateway Dialing Call Details Records Shall support min. 5 simultaneous conference sessions with min. 20 end points participation in each conference session. Minimum 100 ports. Networking: Bandwidth Control: 64 Kbps to 4 Mbps per endpoint Additional Point:	Standards: Audio: G.711, G.728, G.722, G.722.1 and AAC-LD 64k Deleted Shall support min. 5 simultaneous conference sessions with min. 20 end points participation in each conference session. Minimum 100 ports. Networking: Bandwidth Control: 64 Kbps to 2 Mbps per endpoint. Should provide desktop based video conferencing solution (including software at client terminals) for 500 terminals.
108	Sr No 26 UPS T-1	Capacity 20KVA Parallel redundant capability with load sharing Output Frequency: 50Hz ± 0.1% Output Overall AC to AC efficiency: >80% Inverter Efficiency: >90% Battery Type: Sealed maintenance free Battery Capacity: Minimum 45000 VAH	Capacity 2 X 20KVA in Parallel redundant mode with load sharing Output Frequency: 50Hz ± 0.1% (Free running mode) and 50Hz ± 4% (In Sync mode) Output Overall AC to AC efficiency: >85% Inverter Efficiency: >92% Battery Type: VRLA Sealed maintenance free Battery Capacity: Minimum 26000 VAH per Bank
110	Sr No 27 and 28 UPS T-2 and T-3	Specifications for 5 KVA On-Line UPS for Tier 2 & 3 Input Voltage Range:230v + 15 -20 % Single Phase Output Frequency:50 Hz ± 6% synchronized to mains Output Power Rating:5000 VA/4000 Watts Efficiency Overall: Batter than 80% Efficiency Inverter: Batter than 90%	Specifications for 5 KVA On-Line IGBT based UPS for Tier 2 & 3 Input Voltage Range: 160 V to 280 V AC single Phase at full load Output Frequency:50 Hz ± 4% synchronized to mains Output Power Rating:5000 VA/3500 Watts Efficiency Overall: Better than 85% Efficiency Inverter: Better than 92%

Page No	Clause/S. No.	Original Statement/Specifications As per tender Document	Statement/Specification vetted by DIT/GoI
		<p>Protections: Full Isolation Between Input & Output.</p> <p>Backup Time: 4 Hours on Full Resistive Load Of 4000 Watts</p> <p>Type Of Batteries: Sealed, maintenance free</p> <p>Capacity Of Batteries :Minimum 20900 VAH</p>	<p>Protections: Full galvanic isolation between input and output using internal or external isolation transformer either at input or output.</p> <p>Backup Time: 2 Hours on Full Resistive Load of 3500 Watts</p> <p>Type Of Batteries: VRLA Sealed maintenance free</p> <p>Capacity Of Batteries :Minimum 11750 VAH</p>
111	Sr No 29 UPS T-4	<p>Specifications for 3 KVA On-Line UPS for Tier 4</p> <p>Input Voltage Range: 230v + 15 -20 % Single Phase</p> <p>Output Power Rating: 3000 VA/2400 Watts</p> <p>Efficiency Overall: Batter than 75%</p> <p>Efficiency Invertor: Batter than 85%</p> <p>Protections: Full Isolation Between Input & Output.</p> <p>Backup Time: 4 Hours on Full Resistive Load Of 2400 Watts</p> <p>Type Of Batteries: Sealed, maintenance free</p> <p>Capacity Of Batteries :Minimum 13300 VAH</p>	<p>Specifications for 3 KVA On-Line IGBT based UPS for Tier 4</p> <p>Input Voltage Range:160 V to 280 V at full load</p> <p>Output Power Rating: 3000 VA/2100 Watts</p> <p>Efficiency Overall: Better than 85%</p> <p>Efficiency Invertor: Batter than 92%</p> <p>Protections: Full galvanic isolation between input and output using internal or external isolation transformer either at input or output.</p> <p>Backup Time: 4 Hours on Full Resistive Load of 2100 Watts</p> <p>Type Of Batteries: VRLA Sealed maintenance free</p> <p>Capacity Of Batteries :Minimum 12300 VAH</p>
115	Sr No 35 & 36	<p>42 u Racks 600mm * 800mm</p> <p>Racks Size: 42u</p> <p>Width * Depth: 600mm * 800mm</p> <p>Powder quoted steel Body with front door of glass.</p> <p>Completely covered & have security locks</p> <p>All covers can be removed & operable from all sides</p> <p>Uninhibited access to all mounting points inside the racks</p> <p>Proper ventilated with four fans.</p> <p>Power cable management</p> <p>Two Power strips having 10 5A/15A sockets each</p> <p>Adjustable shelf & accessories to accommodate equipment's</p> <p>Fitted with Copper strip for earthing the equipments.</p> <p>One IP Power strip with min 5 sockets</p> <p>42 u Racks 600mm * 1000mm</p> <p>Racks Size: 42u</p> <p>Width * Depth: 600mm * 1000mm</p> <p>Powder quoted steel Body with front door of glass.</p> <p>Completely covered & have security locks</p> <p>All covers can be removed & operatable from all sides</p> <p>Uninhibited access to all mounting points inside the racks</p> <p>Proper ventilated with four fans</p> <p>Power cable management</p> <p>Two Power strips having 10 5A/15A sockets each</p> <p>Adjustable shelf & accessories to accommodate equipment's</p> <p>Fitted with Copper strip for earthing the equipments.</p> <p>One IP Power strip with min 5 sockets</p>	<p>42 u Racks 600mm * 1000mm</p> <p>Racks Size: 42u</p> <p>Width * Depth: 600mm * 1000mm</p> <p>Powder quoted steel Body with front door of glass.</p> <p>Completely covered & have security locks</p> <p>All covers can be removed & operatable from all sides</p> <p>Uninhibited access to all mounting points inside the racks</p> <p>Proper ventilated with four fans</p> <p>Power cable management</p> <p>Two Power strips having 10 5A/15A sockets each</p> <p>Adjustable shelf & accessories to accommodate equipment's</p> <p>Fitted with Copper strip for earthing the equipments.</p> <p>One IP Power strip with min 5 sockets</p> <p>(Only one type of rack is to be used at all locations)</p>

Page No	Clause/S. No.	Original Statement/Specifications As per tender Document	Statement/Specification vetted by DIT/GoI
		21 u Racks 600mm * 800mm Racks Size: 21u Width * Depth: 600mm * 800mm Powder coated steel Body with front door of glass. Completely covered & have security locks Uninhibited access to all mounting points inside the racks Proper ventilated with minimum two fans All covers can be removed & operatable from all sides Power cable management Two Power strips having Five 5A/15A sockets each Adjustable shelf & accessories to accommodate equipment's Fitted with Copper strip for earthing the equipments. One IP Power strip with min 5 sockets	
117	Sr No 39	The key requirement for Wireless Base station is to provide P-to-MP connectivity for remote villages and user departments' offices within 25 Kms radius using 2.4Ghz unlicensed band. Support for min. 100 remote sites per radio at Base Station.	The key requirement for Wireless Base station is to provide P-to-MP connectivity for remote villages and user departments' offices within 25 Kms radius using unlicensed band. Support for min. 100 remote sites per radio at Base Station.
126	Sr No 47	Additional Point Performance: <ul style="list-style-type: none"> • Shall support interfaces like <ul style="list-style-type: none"> o E1/channelized E1 o ISDN BRI, PRI o Shall support DSL connectivity using ADSL, G.SHDSL for BHQ connectivity using Dead copper from Service Provider's • Shall support load balancing across multiple unequal WAN links to the same destination network. • At least 100 Kpps forwarding performance 	Interface Requirements E1/Channelized E1: 02 Nos., 10/100 Ethernet ports: 02 Nos. and BRI port: 01 no. Performance: <ul style="list-style-type: none"> • Shall support interfaces like <ul style="list-style-type: none"> o E1/channelized E1 o ISDN BRI o Shall support DSL connectivity using ADSL, G.SHDSL for BHQ connectivity using Dead copper from Service Provider's • Shall support load balancing across multiple unequal WAN links to the same destination network. • At least 70 Kpps forwarding performance
156	Chapter 13	Payment Terms Additional Point	In case of POPs which become operational after issue of provisional Acceptance Certificate, the QGR rates shall be payable as under: - Capital cost shall be equally divided over the balance period. - O&M cost shall be payable only for the balance period of operation.
157		GUIDANCE FOR QUOTING: Quantities mentioned are tentative and may vary, however payment will be made as per actual quantities used. (Installation and Commissioning certificate from designated officer to be enclosed).	Quantities mentioned are tentative and may vary depending upon the final solution designed to meet the SLA, however payment will be made as per actual quantities used. (Installation and Commissioning certificate from designated officer and respective OEM or their authorized agencies to be enclosed)

CLARIFICATIONS TO RFP NO MPSEDC/MPSWAN/2007-08/01

Page No	Clause/S.No.	Original Statement/Specifications/Queries As per tender Document	Comments/Clarifications
15	5.3.6	<p>Facilities for conveyance/ transportation of staff and equipments, communication facilities (mobile phones etc) shall also be provided by the SI.</p> <p>Query: Pls intimate what kind of transport would be needed and how many people would be using it at a time. At what occasions would it be required to be used and what would be the approximate km usage in a day. How much time would this vehicle required to be with the Tier 1, 2 and 3 POPs.</p>	Transport facility should be available for the use of SI staff Only.
15	5.3.6	<p>Facilities for conveyance/ transportation of staff and equipments, communication facilities (mobile phones etc) shall also be provided by the SI.</p> <p>Query: Is the mobile required to be with all 115 people or only select people would be using it.</p>	Flexibility lies with SI, it is expected that SI will provide mobile phones to staff who he feels should have such facility to maintain required uptime as per SLA
16	5.4	<p>During commissioning and after commissioning of MPSWAN, successful Bidder shall provide training free of cost to the personnel identified for the state. The numbers of personnel required to be trained are 100.</p> <p>Query:Pls clarify the duration of training and the number of people in a batch</p>	As per requirement.
20	6.4	<p>The Network Installation & Integration and Project Management services should not be sub-contracted and should be executed only by the employees of the Bidder Company who are on its payrolls.</p> <p>Query; Request you to permit sub-contracting in works like passive cabling, civil/electric work, site preparation and maintenance of UPS, DG & ACs etc.</p>	Permitted
36	7.4.3	<p>Site Preparation: As per the approved implementation plan, MPSEDC shall arrange the necessary minimum constructed rooms/ space permanent construction for locating MPSWAN POPs and co-located & remote offices for operation of the SWAN.</p> <p>Query: Is the site preparation to be carried out for only 340 PoPs or site preparation has to be done to co-located sites and remote offices. If yes provide us number of such locations.</p>	We have provided estimates of individual items which any civil engineer can easily understand.
37	7.4.4	<p>The SI shall also make arrangements for insurance of all the MPSWAN components.</p> <p>Query: Does the insurance have to be provided for entire period of contract i.e. five years?</p>	Yes, including period of installation & commissioning.
38	7.4.8	Approvals and Clearances:	Yes, cost shall be borne by the government. However, bidder shall be required to prepare documents necessary for approvals and also liaise with the respective

		Query: The MPSEDC shall provide all necessary papers for getting these approvals from various authorities and Costs associated with approvals shall be paid by GoMP/MPSEDC. Pls confirm?	agencies for clearances and approvals
38	7.4.8	For use of Radio/ Microwave/ Wireless links in Intra city/ Intercity, the Bidder for the range of frequencies that the equipment is going to use, as required, shall obtain an approval from Wireless Planning Commission (WPC) wing and Standing Advisory Committee for Frequency Allocation (SACFA) as required. Query: It is submitted that SACFA approval would be required which would require liasioning with necessary authorities and submission of some charges, link wise. Pls clarify as to who would bear these charges	MPSEDC
41	7.5.2	The successful bidder shall be responsible for the security audit of the network to be carried out by a certified agency agreed by MPSEDC, other than the successful bidder or any affiliated/JV company of SI. Query: The cost of carrying out the security audit would be borne by whom?	State government / MPSEDC would appoint a Third Party Audit (TPA) agency as per the provision of DIT approval and the cost of all the work within the scope of TPA agency including security audit would be met from the project fund sanctioned by Government of India. However, Network Operator has to provide all required support for such activity.
55	8.12.1	Call server for call centre with 10 PSTN connections Query: Does it means that GOMP is planning to setup 10 seater call center at SNMC. Please clarify	The SI has to establish a help desk as per requirement. The PSTN lines are for helpdesk
68	S. No. 1:- Specifications & Requirements for Router T-1	c) Router Interfaces Requirement i) Channelized STM-1 interface – 2 nos ii) STM-1 / Channelized STM – 1 interface – 02 nos Query: The requirement is not very clear. Does the MPSEDC is looking for 4xSTM-1 or 2xSTM-1. Please clarify.	STM-1 interface required is four nos out of which Two should be Channelized STM-1. The other two can be Channelized STM-1or clear STM-1
74	S. No. 4 & 34:- Router T-4 and Internet Router at T1 Specifications:	Router Interface Requirements for T4 – 292 PoPs i) 10/100/1000 Mbps Ethernet ports – 2nos ii) Channelized E1 – 2 nos. iii) E1/Channelized E1 (G703/V.35) – 02 Nos. Query: The Interface requirement is not very clear. Is the MPSEDC is looking for 2xCH E1 and 2xE-1 with G703/V.35 Ports or they need the router with 4xCH E-1 Ports. Please clarify	E1 interface required is four nos out of which Two should be Channelized E1. The other two can be Channelized E1 or clear E1
86	Helpdesk Management	Query: Please provide the total number of analyst required to access the helpdesk system. This is required for creating the BOM and Pricing for the Helpdesk Solution.	Maximum Numbers are 10 for entire contract period, SI to decide number of persons to be deputed at given point of time based on requirement. Helpdesk manpower required are over and above manpower required for O&M activity.
117	S. No. 39:-	Support for min. 100 remote sites per radio at Base Station.	NO, It should support 100 remote sites per radio at base station

		Query: As such kindly confirm whether 15 remote sites per radio at base station are acceptable.	
117	S. No. 39:	Query: In the financial format it says 25, 25 and 15. Does it mean overall horizontal offices for each tier or individually at each POP.	Per POP
117	S. No. 39:	Query: What would be the process of implementation of Horizontal connectivity? Will the third party ask the operator to implement it on as and when required basis	MPSEDC will be advising SI for commissioning of horizontal connectivity based on requirement from individual departments.
154	Chapter 12	SWANs Interoperability Query: URL filtering and Gateway level anti-virus filtering is required as part of S.No.20:- IPS, page no 97 or need a separate solution for these functions, please clarify?	Separate solution is not required.
157	Chapter 13	Query: The clause is not clear. Does margin means profit margins. If margin is not included in price, where is it required to be included	Prices for Part 1A.1, Part 1B.1 and Part 1C.1 only should not include margins. This is required to calculate NPV of any given equipment. Profit margin can be clubbed with prices for Part 1A.2, Part 1B.2 and Part 1C.2.
162	FINANCIAL BID PART 2	Query: Qty of the Wireless components not Clear plz specify the same.	Quantities are as per BOQ
162	FINANCIAL BID PART 2	Query: Qty and the specs of the passive components namely Fiber/UTP cable, Patch cords, Patch Panel not being mentioned. Plz define the scope and qty of the same.	The quantity of data cabling is given in Part D of financial Bid. Other Passive component's cost wherever necessary, should be merged with main equipment cost and specifications should be as per ITU standards for such activities. The cost of all major/minor, active or passive components necessary to make the SWAN operational shall be borne by the bidder.