

## Corrigendum-1

### Important Dates and Information

Last Date And Time For Receipt Of Bids	16/06/2014 by 15:00 Hrs
Date & Time Of Opening Of Part-I ,Part-II, Part-III of the Bids	16/06/2014 at 16:00 Hrs onwards
Date & Time Technical Demo & Presentation	20/06/2014 at 11:00 Hrs (separate slots will be communicated to the eligible bidders)
Date & Time Of Opening Of Financial Bids and Declaration of results	24/06/2014 at 11:00 Hrs

### EMD / Bid Security amount:

All BIDDER's shall furnish, as part of its Bid, an Earnest Money amounting to **Rs.25,00,000 (Rs. Twenty Five Lakhs Only)**. Bids without this bid security will be rejected.

### MAF from OEM

To be submitted in OEM letter head in original / copy. If submitted in copy SHSB at the later stage can ask for the original which needs to be submitted within 2 days when asked.

### Back-Up Server:

S. No.	Features	Specifications	Compliance (Yes/No)
1.	Form factor	Blade	
2.	Processor	Two numbers X86 based Processor. Processor Core per CPU should be Minimum Six. The Frequency should be minimum 2.2 GHz. Processor should be latest series/generation for the server model being quoted	
3.	Memory	256 GB ECC DDR3-SDRAM DIMMs expandable to 512 GB	
4.	Controllers	Integrated SAS Raid Controller with support for Raid 0/1/10	
5.	Hard Disk Drives	Two 600 GB 6G 10K RPM 2.5" SAS Hard Disk Drive hot swappable system disk with mirroring using integrated RAID 0,1 on internal disks	
6.	Clustering	Should be configured in a OS clustering Mode for High Availability	
7.	Ethernet Adapter	Minimum dual Port 1 Gig Ethernet Adapter	
8.	SAN Connectivity	Redundant 8 Gbps Fibre Channel HBA Port	
9.	I/O Expansions	Minimum two PCI 3.0 slots	
10.	System Management and Diagnostics	System management via remote management port. Virtual KVM and Remote CDROM drive mapping functionality should be included.	
11.	Software	Server Management software with the device drivers	
12.	OS Compatibility	Microsoft Windows Server latest version Standard and datacenter Edition (64 bit) Red Hat Enterprise Linux latest version (64 bit) SUSE LINUX Enterprise Server latest version (32 bit and 64 bit)	
13.	Warranty	3 years comprehensive OEM warranty	

### Distribution Switch (1/10g based for All 13 locations)

#### Technical Specifications for (24 Port POE+) switch

Feature	Details
Switching Capacity	shall support 176 GBPS or more total switching capacity or more with non-blocking architecture per switch.



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Forwarding Rate	Minimum 130 Mpps or more per switch
Architecture	shall have minimum 1GB RAM and 1GB flash from day one for efficient performance
	shall have internal redundant power supply
	Shall support adding dedicated stacking ports with minimum 40 GBps Stacking Bandwidth.
	Should be able to stack minimum 8 switches together
	Should be cross stackable with their other 1RU Model Switches
	24 ports of 1G Base T and 4 dedicated SFP ports from day one. The 4 SFP ports should be upgradable to 4 SFP+ in future.
Interface support	Interface optic Support : 10/100/1000 base T , 1000 base X (SX, LX, ZX, BX) , 10G (SR, LR, ZR)
IP v6 Support	Shall support hardware and software configuration support for IPv6 at L2 switching and L3 routing from day 1
Layer 2	Shall support 1000 active VLANs (IEEE 802.1Q) from day one.
	IEEE 802.3ad Link Aggregation, with support for minimum 128 aggregation groups
	Should support minimum 32K MAC system wide
	shall support command for turning on and off MAC address , Learning, Flooding and ageing on a per port and Vlan basis.
	shall support Port based VLAN, MAC based VLAN and Private vlan
	shall support minimum 64 active STP instances
	shall support SNMP and syslog Notification for MAC addition, deletion and movement across ports
shall support Multicast traceroute , Layer2 Ping and Layer 2 Traceroute for connectivity and Fault Management	
QOS	shall support Eight hardware queues per port.
	Shall support minimum 4 multisession mirroring from day one
	shall support Diffserv –RFC 2474, RFC 2475 RFC 2597 and RFC 2598
	shall support port mirroring with 1:1, 1:N capabilities. Shall have support for Remote mirroring capability & acl based selective traffic mirroring
	shall support IEEE 802.1P, IEEE 802.1Qat, IEEE 802.1Qav, IEEE 802.1BA, Diffserv
	shall support rate limiting with Configurable bandwidth granularity in steps of 8 Kbps minimum
	shall support Strict Priority Queuing & WRR
shall support Link Layer Discovery Protocol (802.1ab) & LLDP-MED to allow auto recognition of third party network devices.	
Layer 3	shall have static routes, L3 GRE Tunneling, ECMP, PBRv4, PBRv6, RIP, RIPng from day 1 and upgrade path to support BGP4, BGPv6/BGP+, VRRP, VRRPv3, full OSPF (Open Shortest Path First) v2,v3, and PIM-SM n future
	shall support Policy based Routing and Traffic Redirection
	shall support configuration support for Static Unicast routes, Telnet, SSHv2, Multicast listener Discovery v1,v2,Ping and Traceroute over IPv6
	shall have support for DHCP Option 82 , DHCP server and BootP/Dhcp relay .
SECURITY & SDN	shall support 4K Hardware based ACLS
	shall support mechanism to guard against BPDU attacks for edge ports or equivalent
	Network login with IEEE 802.1x user authentication and web browser based walled garden Network login for non 802.1x clients

	Unidirectional Link Detection (UDLD] or equivalent for detecting and disabling unidirectional links on fiber-optic interfaces caused by incorrect fiber-optic wiring or port faults
	Local authentication database and RADIUS Authentication for 802.1x, TACACS+ Authentication
	shall support binding of mac address to port, MAC security – Lockdown & Limit
	shall be scalable to support Minimum 4K ACL wire-speed L2/L3/L4 ACLs in Hardware
	shall support SSH-2, SCP-2 , SFTP with encryption/ authentication
	The switch should support Software Defined Networking (SDN) OpenFlow in hardware from day one
	The switch should support Software Defined Networking (SDN) Openstack plugin for Grizzly/Havana/Icehouse release
	shall support DHCP snooping and blocking of static IP usage in DHCP environment
	shall support packet flow export standards IPFIX/Netflow in Hardware from Day one for Network visibility and security audits.
Management	Web based Graphical User Interface with ssl support
	Support features / protocol to measure Frame Delay and Latency between devices to pinpoint slow traffic paths
	shall have Serial RS232 port and dedicated Out Of band Management Ethernet Port
	shall support more than one firmware image and more than one configuration file as backup on the switch locally.
	automatic provisioning of VoIP parameters like QOS / VLAN / IP Phone gateways on connecting of VoIP phones to switch port.
	shall support scheduled archiving / uploading of configuration and system log to a Central server
	shall support ability to monitor CPU process and utilization percentage.
Operating Specifications	Operating Temperature Range: 0° C to 45° C
	Operating Humidity: 10% to 93% relative humidity, non-condensing
Power	90-240 VAC
Standards and Certifications	OEM shall be ISO 9001:2000 certified
	ETSI EN 300 386:2001
	NEBS GR-63
	The switch & Operating System should have ISO/IEC 15408 Common Criteria EAL3+ certification from day one

<b>Specification for 1 KVA UPS System</b>			
S.NO	Description	Specification	<b>Compliance (Yes /No)</b>
1	<b>Technology</b>	True On Line UPS with double conversion technology Rectifier and inverter should be based on IGBT	
2	<b>Power Rating</b>	1000 VA / 800 W	
3	<b>Input</b>		
	Voltage Range	160 VAC – 300 VAC @ 100% Load, 110 VAC – 300 VAC @ 50% Load	

	Frequency	40 Hz ~ 70 Hz	
	Power Factor	≥ 0.95	
4	<b>Output</b>		
	Voltage Range	220/230/240 VAC ± 3%	
	Voltage Distortion	≤ 3% (Linear Load)	
		≤ 6% (non Linear Load)	
	Frequency	47.5 ~ 52.5 Hz	
	Power Factor	0.8	
	Crest Factor	3:01	
	Transient Response	Less or equal to 3% for 100% nonlinear load (Battery mode)	
5	<b>Battery</b>		
	Type	Sealed Maintenance Free, Valve Regulated Lead Acid	
	Number of Battery cells	One set of 3 Batteries of 12V	
	Rated Voltage	36 VDC	
	Backup Time	30 min VAH 936	
6	<b>Protection Environmental and Other</b>	Inbuilt protection for surge suppression and EMI/RFI filter provided	
	Audible Noise	Less than 45dB at 1 meter	
	Operating temp & Humidity	20 – 90%RH @ 0 – 40°C (non condensing)	
	LCD Display	UPS Status, Load level, Battery level, Input / Output voltage, Discharge Timer & Fault conditions	
	SMART RS 232	Supports Windows, Novell, Linux and FreeBSD	
	SNMP	Power Management from SNMP manager and web browser option should be present	
	Power Outlet	Should have programmable power management outlet for independent control of load segment.	
	ECO Mode	Should be capable of operating in ECO mode for energy saving.	
7	<b>Credentials</b>	Manufacturer Should be ISO 9001:2000 certified	
		Manufacturer Should be ISO 14001 certified	
8	Nominal Voltage	240 Volts	
9	Two Mode Protection	(L-N/N-G)	
10	Max. Load rating	15 Amp	
11	Surge Current Capacity	10kA	
12	Response Time	<0.5nS	
13	Monitoring	Green LED	
14	The unit shall have Surge Current Capacity of min. 10kA		
15	The unit shall have a Maximum Continuous Operating Voltage (MCOV) rating of min 320Volts.		
16	It should have Two Modes of protection (L-N & N-G) & <0.5 ns Response time.		
17	TVSS should have LED indications for physical monitoring		



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18	UPS shall be provided with externally connected SPD as per IEEE Standard 1100-2005	
19	Shall be External unit to UPS with Power & Failure LED Monitoring of SPD	
20	SPD's installed internal to the UPS do not comply for this requirement. They must be supplemented with External SPD.	
21	Shall be externally connected with flexibility of External replacement.	
22	The SPD shall be fully replaceable without UPS shut down OR disassembly of the UPS.	
23	External SPD replacement shall be achieved within 3 minutes time.	

## Project Management:

Existing Clause	New Clause
The successful IA will undertake to completely manage and maintain the said equipment/infrastructure installed and commissioned at sites for a minimum period of three years after the clearance of Final Acceptance. During the said period of undertaking, the successful IA will be responsible for the smooth working of the total system installed at the locations under this project and to ensure minimum 99% uptime. This task of management of project will be termed as 'Project Management' in the rest of the document.	The successful IA will undertake to completely manage and maintain the said equipment/infrastructure installed and commissioned at sites for a minimum period of three years after the clearance of Final Acceptance. During the said period of undertaking, the successful IA will be responsible for the smooth working of the total system installed at the locations under this project and to ensure minimum <b>95% uptime</b> . This task of management of project will be termed as 'Project Management' in the rest of the document.

## Firewall:

The appliance should be ICSA-Firewall / FIPS 140-2 certified. The appliance should support IPv6 features.

## Central Switch at SHSB (2 Nos.)

Existing Clause	New Clause
IEEE 802.1p, 802.1Qat, 802.1Qav	EEE 802.1p, 802.1Q"

## Edge Switches-POE based

Existing Clause	New Clause
Security: Support for kerberos	Security: "Support for kerberos or 802.1x"
Standards & Certifications: OEM shall be ISO 9001:2000 certified ETSI EN 300 386:2001 NEBS GR-63	Standards & Certifications: OEM shall be ISO 9001:2000 certified ETSI EN 300

## EMS/NMS Application:

Existing Clause	New Clause
Application Performance Management/ End User Experience Management: Ability to keep 90 days of performance data entirely within the solution at 5 minute summaries	Application Performance Management/ End User Experience Management: Stands deleted
End-to-End Web Performance: Captures end user visit data including ISP, Browser,	End-to-End Web Performance: Stands Deleted
Performance Behaviour Learning & Anomaly Detection: Ability to keep 90 days of performance data entirely within the solution at 5 minute summaries	Performance Behaviour Learning & Anomaly Detection: Stands deleted.
Network Automation: The solution should be able to support configuration management across the network infrastructure, including routers, switches, firewalls, load balancers, wireless access points, and other network devices.	Network Automation: The solution should be able to support configuration management across the network infrastructure, majorly routers and switches
Network Automation: Should support Standard Authentication Methods, Role Based Access Control (RBAC),	Network Automation: Should support Standard Authentication Methods, Role Based Access



Realms and Groups, Sensitive Data Masking, Telnet SSH proxy.	Control (RBAC) and Telnet SSH proxy.
Network Automation: The solution should be able to audit and enforce configuration standards, such as those around security, performance, and routing which would help in proactively assessing the impact of change and also quickly recover from problematic changes	Network Automation: The solution should be able to audit and enforce configuration standards which would help in proactively assessing the impact of change and also quickly recover from problematic changes

## Mobility:

Existing Clause	New Clause
Eclipse tooling platforms	Eclipse tooling platforms or equivalent

## Functional Requirement Specification:

Existing Clause	New Clause
<p><b>Longitudinal Clinical repository</b>  <b>Interfaces:</b> The CDR must be exposed through open standards based ( Java/J2EE) application-programming interfaces. Local (hospital, CHC/PHC) applications should be able to interact with the central repository to submit and extract required information leveraging the document index.</p>	<p><b>Longitudinal Clinical repository</b>  <b>Interfaces:</b> The CDR must be exposed through open standards based ( Java/J2EE/equivalent) application-programming interfaces. Local (hospital, CHC/PHC) applications should be able to interact with the central repository to submit and extract required information leveraging the document index.</p>

## Manpower:

### Man-Power at SHSB:

- 1 Database Expert, 1 Network Expert, 1 Solution Architect/ Application Expert, 1 Project Manager and 1 Project Director.
- 1 Database Expert, 1 Network Expert, 1 Solution Architect/ Application Expert needs to support for 24x7.
- 1 Help Desk operator- 24x7 support.

### Man-Power at 13 locations:

- 1 Project Manager, 1 IT & Network Support, 1 Training & Handholding Support.
- 1 IT & Network Support needs to support for 24x7

### Data Entry operators:

- IGIMS & Medical Colleges & Hospitals: 10 Data Entry operators each.
- District Hospitals: 5 Data Entry Operator each.
- Minimum Qualification for the Data Entry operators is 12<sup>th</sup> / Graduate with Knowledge in Clinical Data and Computers.

### Band-Width

- Minimum Band-width reqd. at SHSB 100 MBPS.
- Minimum Band-width reqd. at 13 locations 10 MBPS.

## Annexure- 14: Financial Bid Format Financial Format

### Summary of Cost Tables

S.No	Items	Total Price (INR) inclusive of all Taxes	Total Price (In words)
1.	Hardware Cost		
2.	Application Cost		
3.	Training Cost		
4.	Site Preparation Cost		
5.	Operation cost for 3 (three) years including FMS after Go-Live		
6.	Any other		
	<b>Grand Total (INR)</b>		

(Bidders can add up any item if they think it is feasible for the proper functioning of the HMS system)

### Break up of Hardware at SHSB:

Sl	Description	A/U	Qty	Rate	Tax any	if	Total
1	Blade Chassis	No	1				
2	Blades	No	6				
a	Application Server (Live)	No	1				
b	Application Server (Testing)	No	1				
c	AD/LDAP Server	No	1				
d	Database Server	No	1				
e	NMS Server	No	1				
f	Back-up Server	No	1				
3	Link Load Balancer	No	1				
4	Application Load Balancer	No	1				
5	Web Security & Proxy Appliance	No	1				
a	Log & Management Server	No	1				
b	Web Security & Proxy Application	No	1000				
6	Data Security Appliance	No	1				
a	Log & Management Server	No	1				
b	DLP Application	No	1000				
7	Firewall	No	1				



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8	Core Router	No	1			
9	Central Switch	No	2			
10	SAN Storage	No	1			
11	SAN Switch	No	1			
12	Tape Library	No	1			
13	NMS Application	No	1			
14	42U RACK	No	2			
15	60 KVA Diesel Genset	No	1			
16	UPS (20 KVA )	No	1			
17	Cabling & Accessories	Lot	LS			
18	MCU	No	1			
19	High End Conference Room End Point	No	1			
20	Any other					

**This list is the minimum requirement which is reqd. for the envisaged HMS. Bidders are free to add up any new item or increase the quantity for any line item based on their system solution.**

### Break up of Hardware at 13 locations:

Sl.No	Description	A/U	Qty	Rate	Tax Any if	Total
1	Router	Nos.	13			
2	Central Switch L3 (Rack Mountable)	Nos	13			
3	Layer 2 Edge Switches (24-Port) PoE	Nos	52			
4	Laptops	Nos	1*			
5	Desktops	Nos	1*			
6	Multi-Function Printer	Nos	52			
7	CAT 6 (305 m roll)	BOX	175			
8	Jack Panel	No.	13			
9	IO with face plate & Gang box	1 Set	522			
10	Patch panel loaded - 24 Port	No.	13			
11	Patch panel loaded - 12 Port	No.	13			





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12	Patch Cords 3 feet	No.	522			
13	Patch Cords 7 feet	No.	522			
14	Fiber Optics cable indoor Multi Mode (MM) Cable 6 Core	Mts.	13000			
15	Fiber Optics cable Single Mode (SM) Cable 6 Core	Mts.	13000			
16	Armored Fiber Optics cable Single Mode (SM) Cable 6 Core	Mts.	13000			
17	19" LIU 12 Fiber 1U Rack Mounted fully loaded	No.	52			
18	19" LIU 24 Fiber Rack Mounted fully loaded	No.	52			
19	Fiber Patch Cord MM 50/125 –SC-SC/SC-LC/LC-LC(Duplex) 3 Mtrs.	No.	52			
20	Fiber Patch Cord MM – 50/125 SC-SC/SC-LC/LC-LC(Duplex) 1 Mtrs.	No.	52			
21	Supply and fixing of PVC ducts/ conduits	Mtrs.	13000			
22	High End Conference Room End Point	Nos.	13			
23	1000 VA online-UPS with 15 mins battery back-up	Nos	1*			
24	Any other					

**\*will be procured later as per need of the individual hospitals as per specifications and rate quoted.**

**This list is the minimum requirement which is reqd. for the envisaged HMS. Bidders are free to add up any new item or increase the quantity for any line item based on their system solution.**

**Summary of Operational Expenditure for 3 years from the date of Go-Live for all 13 locations together: OPEX**

Sl.No.	Description	Rate(Rupees)
1.	Operations Cost of Manpower towards Salaries, Transportation etc	
2.	Site rental if any	
3.	Band-Width charges	
4.	Total (INR)	

### Training Cost

Sl.No.	Description	Rate(Rupees)
1.	Training of Doctors and other relevant staffs at IGIMS & 6 Medical colleges	
2.	Training of Doctors and other relevant staffs at 6 district	



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	Hospitals	
3.	Hands on Training at 13 locations for 3 years	
4.	Total (INR)	

## Site Preparation Cost

S. No	Description	A/U	Qty	Rate	Tax Any	if	Total
1	Laying of UTP cabling including termination at both ends	Mtrs.	52500				
2	Fiber termination & splicing with pigtail	No.	208				
3	Installation and Commissioning of racks, Core and workgroup switches, jack panels	No.	13				
4	Installation and Commissioning of I/O boxes	No.	522				
5	Power point wiring for end-points(Desktops, laptops, printers, etc..)	Mtrs.	522				
6	Supply, fixing and termination of 5A switch socket with enclosure	No.	522				
7	Earthing pits	Nos	13				
8	Supply and laying of AL Armoured cable 3.5Cx35mm from DG set to Electrical panel or DB	Mtrs.	1300				
9	Any other Site Preparation Cost at IGIMS and 6 Medical College	Lumpsum					
10	Any other Site Preparation Cost at 6 District Hospital	Lumpsum					
11	Total(INR)						

**Site Preparation doesn't involve any major civil & mechanical works in any of the site.**

Note:

1. Contract value is the sum total of capital expenditure and operational expenditure quoted by bidder
2. All unit rates indicated in the schedules shall be inclusive of (not limited to supply), installation, duties, transport, packing and transit insurance charges etc. Taxes should be indicated under the relevant column in the schedules.
3. Department reserves it right to alter the scope (increase quantity / remove certain items).
4. The basic cost is all-inclusive of setting up costs of HMS Project like salary & allowances, recruitment & training, staff insurance & others, telephone, Mobile, internet etc., housekeeping, AMC of hardware & software, up gradation of software, equipment, postage & courier, printing and stationary and all other miscellaneous expenses inclusive of all taxes, duties, fees etc.
5. All other tasks pertinent to the contract even though may not have been mentioned in the bid document are assumed to have been included in the work
6. Deduction of taxes at source will be made as per applicable laws from the payments to be made to the vendor.

**Place : Bidder's signature**

**Date and seal**

All others clauses remain same as per the RFP.