

**MINISTRY OF HEALTH & FAMILY WELFARE,  
GOVERNMENT OF INDIA**

**Tender**

**For**

**Establishment of Local Area Network (LAN) and Queue/Token  
Management System for Temporary OPD at AIIMS, Raibareli (UP)**

**Volume-IV  
Bill of Quantities**

**February 2014**



**HSCC (INDIA) LTD  
(CONSULTANTS & ENGINEERS FOR MEGA HOSPITALS & LABORATORIES)  
E-6(A), sector-1, NOIDA(U.P) 201301 (India)**

Phone: 0120-2542436-40

Fax: 0120-2542447

**Tender No. HSCC/IT/Temp-OPD/Raibareli/2014**

Bill of Quantity (BOQ) for establishment of Local Area Network (LAN) and Queue/Token Management System (QMS) for temporary OPD at AIIMS, Raebareli

Work to be executed as per Scope of work, Technical Specification, tender's terms and conditions etc. for establishment of LAN and QMS

Sr. no.	Item Description	Unit	Total Quantity	Rate in Rs. in figure	Rate in Rs. in words	Amount in Rs.
1	2	3	4	5	6	7
<b>Active Devices</b>						
1.0	<b>Access Switch (Make - HP/Cisco/Juniper/Brocade)</b>					
1.1	Supply, installation, testing and commissioning of <b>48 Port Access Switch with 2 Slots</b> as per the technical specification mentioned as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	No	1			
1.2	Supply, installation, testing and commissioning of <b>24 Port Access Switch with 2 Slots</b> as per the technical specification mentioned as per the requirement & complete in all respect and as directed to the satisfaction of engineer.	No	1			
2.0	<b>Wireless Solution (HP/Cisco/Juniper/Brocade/Ruckus)</b>					
2.1	Supply, installation, testing and commissioning of <b>Wireless Access Point with Power over Ethernet Adapter (10/100/1000 Mbps), Wall mounting device, Universal horizontal ceiling etc.</b> and one years subscription as per the technical specification and as per requirement & complete in all respect and as directed to the satisfaction of engineer	No	2			
<b>Passive Devices</b>						
3.0	<b>UTP Components (Make - Molex/Systimax/R&amp;M/AMP/Panduit)</b>					
3.1	Supply, laying, testing and commissioning of <b>Cat 6A, PowerCat Plus, UTP Cable, 4 pair, 500 mtrs, Blue (23 AWG, Reel in a Box packing)</b> as per the requirement and as directed to the satisfaction of engineer	No	8			

3.2	Supply, installation, testing and commissioning of <b>Cat 6A Patch cords -4 feet</b> as per the requirement and as directed to the satisfaction of engineer	No	50			
3.3	Supply, installation, testing and commissioning of <b>Cat 6A Patch cords -7 feet</b> as per the requirement and as directed to the satisfaction of engineer	No	50			
3.4	Supply, installation, testing and commissioning of <b>Cat 6A UTP I/O with strain relief and Bend limiting Boot</b> as per the requirement and as directed to the satisfaction of engineer	No	100			
3.5	Supply, installation, testing and commissioning of <b>2- port shuttered Face plate with surface mount Box</b> as per the requirement and as directed to the satisfaction of engineer	No	50			
4.0	<b>Equipment Racks and other accessories</b>					
4.1	Supply, installation, testing and Commissioning of <b>Wall Mounting Rack (Size 12U) with Front Glass Door with Lock Rack Accessories: Fans, 19" Stationary Shelf (1 No.), 5 Point AC Distribution Box 5/15 Amps(1 Nos.), Mounting Hardware - Pack of 10(2 nos.)</b> etc. as per the requirement and as directed to the satisfaction of engineer	No	2			
4.2	Supply, installation, testing and Commissioning of <b>24 Ports unloaded Patch Panel with all standard accessories</b> that include Cable Manager, Power Bar with sockets etc. as per the requirement and as directed to the satisfaction of engineer	No	3			
4.3	Supply, laying, testing and commissioning of <b>PVC Batten/Pipes</b> as per actual 1" as per the requirement and as directed to the satisfaction of engineer	Meter	1500			
4.4	Supply, installation, testing and commissioning of <b>latest Server Hardware</b> as per the technical specification mentioned (Make - HP/Dell/IBM) as per the requirement & complete in all respect and as directed to the satisfaction of engineer	No	1			

4.5	Supply, installation, testing and commissioning of <b>latest Server Operating System</b> - Microsoft Windows 2012 Server or higher with media etc. as standard for the above Server as per the requirement & complete in all respect and as directed to the satisfaction of engineer	No	1			
5.0	<b>UPS SYSTEM (make-APC/Emerson/Merlinzerin/Eaton Powerware)</b>					
	<b>UPS of 20 KVA</b>					
i	Supply of 20 KVA True Online double conversion and fully Microprocessor Controlled UPS system with IGBT based Rectifier with input pf 0.98 and minimum 95 % overall efficiency and THDI less than 5% on non linear loads including accessories and suitable Power Management software in UPS including IGBT/PWM technology based inverter, automatic bi - directional static switch, manual bypass switch, galvanic isolation transformer with UPS by pass has to be terminated before the isolation transformer in the UPS out-put path, input phase reversal protection, provision for separate input for rectifier and for bypass. UPS should be with three phase input & three phase out put complete as required.					
ii	Rack mounted external battery bank of 12 volt SMF batteries for a total of 30 mins backup for ups on full resistive load.					
iii	Installation & commisioning of above mentioned UPS with battery and accessories.					
	Supply, installation , testing and commissioning of 20 KVA UPS as mentioned above.					
	<b>UPS Panel</b>					

	Supply, installation, testing and commissioning of following M.V. cubicle type totally enclosed, wall mounted type, powder coated, dust, damp and vermin proof, indoor type Distribution Board/Panel complete with busbars, M.V. danger notice plate, interconnections with suitable capacity aluminium leads/solid aluminium strips/rods, connection of incoming and outgoing cables with thimbles, and having following incoming and outgoing switchgears complete as per technical specification and as required.
a)	<b>INCOMER:</b>
	100 Amps, 415 volts, FP 35 KA Moulded Case Circuit Breaker with thermal magnetic release having variable current settings .
	R,Y&B phase indicating lamp (LED type) with 6A control SP MCB.
	ON,OFF TRIP indication for MCCB with 6A control SP MCB.
	1 No. 0 to 500 V Digital voltmeter with selector switch.
	Digital ammeter with selector switch with one set of suitable C.Ts.
b)	<b>BUSBARS:</b>
	100 Amp TPN Aluminium busbars
c)	<b>OUTGOING:</b>
i)	2 no. 63 Amps , 415 volts, 9 KA ,Four Pole, Miniature Circuit Breaker, with ON/ OFF indication.
ii)	4 no. 32 Amps , 240 volts, 9 KA ,Double Pole, Miniature Circuit Breaker, with ON/ OFF indication.
iii)	4 no. 40 Amps , 240 volts, 9 KA ,Double Pole, Miniature Circuit Breaker, with ON/ OFF indication.

	Agency also to be made all the necessary arrangements (Cabling and other accessories) for the following: (a) Providing UPS supply to all the computers, printers, network switches, servers and other IT equipments etc. & complete in all respect. (b) Necessary arrangement for proper earthing of UPS. <b>UPS with Panel as mentioned above</b>	Set	1			
6.0	<b>Queue Management System (QMS)</b>					
6.1	Supply, installation, testing and commissioning of <b>Queue Management System Kiosk - Wall Mount/Table Mount with Touch Screen as per the technical specification</b> with all necessary accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	No	2			
6.2	Supply, installation, hanging, testing and commissioning of <b>Counter Display With Hanging</b> with all the accessories etc., as per the technical specification, complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	No	6			
6.3	Supply, installation, hanging, testing and commissioning of <b>40" LCD TV</b> for display (Make - Sony/Samsung/Panasonic/Toshiba) for OPD with all the accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	No	4			
6.4	Supply, installation, testing and commissioning of <b>Counter Operator Software</b> with all the accessories etc., complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	No	6			
6.5	Supply, installation, testing and commissioning of <b>set of equipment</b> (VGA Adapter, Distributor One Input+2 Output) for connectivity between LCD/LED TV, QMS Kiosk and Display Unit etc. complete in all respect and as per the requirement and satisfaction of the engineer	Set	1			

6.6	Supply, laying, testing and commissioning of <b>VGA Cable</b> (standard make) and other cable with all accessories etc. complete in all respect and as per the requirement and satisfaction of the engineer	<b>Meter</b>	<b>200</b>			
6.7	Supply, laying, testing and commissioning of <b>PVC Conduit/Batten</b> (standard make) as per the requirement and complete in all respect and as per the requirement and satisfaction of the engineer	<b>Meter</b>	<b>300</b>			
6.8	Supply, installation, testing and commissioning of <b>Token Announcement system with Amplifier, speakers(minimum 4 speakers or more)</b> (standard make) & <b>all the accessories etc.</b> complete in all respect as per the requirement and satisfaction of the engineer	<b>Set</b>	<b>1</b>			
6.9	Supply, installation of <b>Paper Roll</b> (Stationary) for Token Dispenser Unit in Roll for initial use (3-4 months) as per requirement and as directed to the satisfaction of the engineer	<b>No</b>	<b>500</b>			
	<b>Queue Mangement System for Consultant's Room</b>					
6.10	Supply, installation, hanging, testing and commissioning of <b>Display Unit</b> for outside Consultant's room with all the accessories, cabling etc., as per the technical specification, complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	<b>No</b>	<b>15</b>			
6.11	Supply, installation, testing and commissioning of <b>Calling Pad /Device Unit</b> for individual <b>Consultant's room</b> with all the accessories, cabling etc., as per the technical specification, complete in all respect and as per the requirement and as directed to the satisfaction of the engineer	<b>No</b>	<b>15</b>			
	<b>Application Software for Patient Registration</b>					

7.0	Supply, Customization, Installation, Testing, Training and Maintenance of <b>Application Software for Patient Registration including all the associated software and Database licenses etc. for the completeness of the system</b> and as per the technical requirement and as per the requirement of the OPD & complete in all respect and as directed to the satisfaction of engineer	No	Lumpsum			
	<b>Total Amount</b>					