

HIGH COURT OF JAMMU AND KASHMIR
(OFFICE OF THE CENTRAL PROJECT COORDINATER e-COURTS)

SHORT TERM TENDER NOTICE

No: TENDER-JKHC/ 4/2017

Dated: 21.06.2017

CORRIGENDUM

In the NIT No.:- TENDER-JKHC/ 4/2017 Dated: 21.06.2017 the following corrigendum is issued:

Object and Scope

Chief features of the project are substituted by the following:

There should be proper segregation of equipment in each floor of High court.

- Two centralized core Fibre switches should be placed at NIC Centre where from all the administration and distribution would be done through OFC to L2 switches in each floor of the High Court.
- The Network racks should be of good built and quality and should have proper ceramic brakes to avoid accidental damage and should have also locking facility.
- The Ethernet cabling should be either CAT 6E or CAT 6A.
- The IP allocation schema of the High Court is to be changed from Static to Dynamic.
- In order to change the IP allocation schema, the DHCP server is to be implemented on respective core switches.
- If VLANS are to be created then inter-VLAN routing between each floor of the High Court is to be implemented
- It should be noted that the High Court uses NIC IP distribution schema only.
- If necessary, sub-netting should be done in a way that could extend to several hundred IP's.
- Quality of Service is to be implemented on the respective core switches in which a part of Bandwidth is to be kept preserved for Video Conferencing sessions.
- VLAN's are to be created for different sections of High Court which would have different set of policies.
- Measurement of UTP and Fibre through automatic measuring tools.

Note: Specifications of different components required are provided in Annexure-A to this document.

General Terms and Conditions

Point No. 8 is reframed as under:

The bidder must furnish single OEM for active and single OEM for passive components of networking. OEM should have support centre in J&K for immediate support.

Annexure-A:

Annexure-A (Specifications) shall be read as under:

Core Switch Layer 3 - 24 Ports

Sr. NO.	Specification	Comply	Remarks
		(Yes/No)	
	General Hardware and Interface requirements		
1	Switch should have minimum 24 nos. SFP+ ports		
2	Switch must have dedicated stacking ports with minimum 240 Gbps of stacking bandwidth and required cables/accessories		
3	The switch should be modular and flexible enough for deploying 1G Ethernet & 10G Ethernet, 1 G fibre and 10 Gigabit Fibre.		
4	Switch must have 1:1 redundant internal power supply.		
5	Power supply modules, fan modules and transceivers modules should be hot swappable.		
6	Switch must have minimum 520 Gbps of switching fabric and 350 MBps of forwarding rate.		
7	Switch must have minimum 20K MAC Addresses, 4K IPv4 and IPv6 multicast groups.		
8	VLAN support : minimum 2K VLAN should have inbuilt management & MSTP support for Multiple Spanning tree instances		
9	Switch shall support static routing, OSPFv2, OSPFv3 and BGPv4, RIPV2.		
10	Switch must have at least 2GB RAM and 2GB Flash.		
11	Should support IEEE Standards of Ethernet: IEEE 802.1D, 802.1s, 802.1w, 802.1x, 802.3ad, 802.3x, 802.1p, 802.1Q, 802.3, 802.3u, 802.3ab, 802.3z.		
12	Switch should support SSHv2, SNMPv2c, SNMPv3, NTPv3 and NTPv4, MPLS.		
13	Switch should support AAA using RADIUS and TACACS+.		
14	Switch should support port security, DHCP snooping, Dynamic ARP inspection, IP Source guard, BPDU Guard, Spanning tree root guard and IPv6 First Hop Security.		

15	Switch shall have Unidirectional Link Detection Protocol (UDLD), Aggressive UDLD, Link Aggregation Control Protocol (LACP), Port Aggregation Protocol (PAgP) and Dynamic Trunking Protocol (DTP).		
16	Switch should be Software Defined Networking Ready with Open flow or similar protocol support		
17	Switch is recommended to be certified for EAL 2/NDPP or above under Common Criteria Certification.		
18	Should support Web-based GUI, CLI, Telnet, FTP, TFTP, LLDP-MED, SNMP v3, RMON v1/v2, multiple image, password recovery, Sntp, MTU for IPv6.		
19	Should Support Packet Buffer Memory of 9 MB		
20	Support Port-based Q-in-Q		
21	Support following mode Strict, Weighted Round Robin (WRR), Strict + WRR, Round Robin (RR), Weighted Deficit Round Robin (WDRR)		
22	Port / Link Aggregation upto 80 Gbps, Port Mirroring, Load Balancing, Both Unicast and Multicast Routing, DHCP Support, inter VLAN routing enabled. Two core switches to connect at 40 Gbps through port aggregation		
23	Can enable IMPB, 802.1X, WAC on the same port Should Support following authentication criteria: - Any: must pass one of MAC, 802.1X or WAC - Dot1x_IMP: must pass 802.1X & IMPB - IMPB_WAC: must pass IMPB & WAC		

Layer -2 Switch (48-Port and 10G uplink switch)

S. No	Minimum Required Specifications	Complied (Yes/no)	Remarks
1	Switch should have minimum 48 No's of 10/100/1000 Base-Tx ports (Duplex, Full, Half) and 2x 10GE SFP+ Uplink port.		
2	Switch should have minimum 65Mpps packet forwarding rate		
3	Should have minimum switching capacity of 86 Gbps.		
4	The switch must have dedicated stacking port separate from uplink ports with at least 64 Gbps of stacking bandwidth and supporting 8 or more stack members. Must include required cables and accessories necessary for stacking.		
5	It shall support IEEE 802.1s Multiple Spanning Tree Protocol and provide legacy support for IEEE 802.1d STP and IEEE 802.1w RSTP or		

	equivalent technology and static routes.		
6	Port Security to secure the access to a port based on the MAC address of a user's device. The aging feature to remove the MAC address from the switch after a specific time to allow another device to connect to the same port.		
7	Switch should support Port-based and 802.1Q tag-based VLANs, MAC-based VLAN, Guest VLAN, Private VLAN Edge, also known as protected ports, with multiple uplinks		
8	All ports should have features of auto-negotiate, flow control (802.3x), port based network access control (802.1x), port security, MAC filtering etc.		
9	Automatically configures port based on device type connected on the port for plug-and-play.		
10	The switch should support IPv6 Guard, IPv6 RA-Guard, IPv6 DHCP-Guard, Source-Guard features		
11	Should support Layer 2 and Layer 3 trace route.		
12	Flash should have 128MB Flash and 256MB DRAM.		
13	Switch should be IPv6 Ready		
14	Switch should support Port Mirroring to Enable traffic on a port to be simultaneously sent to a network analyser for monitoring		
15	Jumbo Frame support up to up to 9 kilobyte frame size to improve the performance of large data transfers		
16	Switch should support Port Mirroring to Enable traffic on a port to be simultaneously sent to a network analyser for monitoring		
17	Should support SNMP v1, v2c and v3, IEEE Compliant: IEEE802.3az standard support, Debug command, CLI Port (RJ45), STNP, LLDP, LLDP-MED, RMON, DHCP Auto Configuration, Dual images Support, Support IPv4/v6 Dual Stack, IPv6 Neighbour Discovery Support.		
18	Switch should support Port Mirroring to Enable traffic on a port to be simultaneously sent to a network analyser for monitoring		

Since the High Court no more requires Distribution Managed L3 Switches, their specifications may be deemed to be cancelled.

Technical Specification: - 10G SFP+ Transceiver for Single Mode Fiber

Sr. No	Desired Specification/Qualitative Requirement
1	Transceiver should be Enhanced Small Form-Pluggable (SFP+) form factor and compatible with quoted switches.

2	Transceiver should be Hot pluggable and support 10G speed on Single Mode.
3	Should be RoHS Compliant.
4	Should be Multi-Source Agreement (MSA) specification compliant.
5	Transceiver should be compliant with IEEE802.3ae standards.
6	Transceiver distance capacity should be 10Km.
7	Transceiver interface should be Duplex LC connector.
8	Transceiver should support Single-mode 9/125 um fibre
9	Operating Temperature: 0 to 50 °C

SM Fiber Cable

S/N	Desired Specification/Qualitative Requirement
1	The fibre type is a Matched Cladding Single Mode
2	Fibre dual coated with acrylate coating.
3	The fibre is optimized for operation at 1310 nm and at 1550 nm.
4	Should fulfil the requirements of: IEC 793-2: 1992, EN 188101 and ITU-T Recommendation G.652
5	Testing methods are in accordance with the following standards: ITU-T G.652.D, IEC 793-1 and Telecordia : GR-20 Core,ISO : 11801
6	Maximum induced permanent loss after 1000 h at 1 bar H2 at 70 °C and out gassing for 72 h at 70°C (valid both at 1310 nm and at 1550 nm): 0.2 dB/km

FIBER PATCH PANELS – RACK MOUNT

S/N	Desired Specification/Qualitative Requirement
1	Have sufficient slots accommodate Simplex/duplex SC/LC/FC adapters individually.
2	Aluminium base material for light mounting
3	Should have Splice Tray & Cable Spool provision inside
4	Accessory kit consists of cable ties, mounting ear screw earthing and spiral wrap tube.
5	Can Include 48 LC,24SC,24 ST and 24 FC Terminations
6	Removable Rear & Front cover for better access to interior of LIU
7	Snap-in Locker Design for easy to change adapter panels.
8	Removable Rubber grommet to allow for pre-terminated fibre trunk installation, protect cable and minimize dust build up
9	Should have cable ties, mounting ear screws and spiral wrap tube

ADAPTORS

S/N	Desired Specification/Qualitative Requirement
1	All SC/LC/FC adaptors should be Simplex and duplex type. Adapters should have compact design & high precision, which perform well under various circumstances & maintain good plug retention strength.

3	0.20db for Zirconia Sleeve
4	SC / FC Adapter 2.0N ~ 5.9N , LC Adapter-1.0N ~ 2.5N

Optical Fibre Connectors

S/N	Desired Specification/Qualitative Requirement
1	Provide a field installable single mode connector to terminate fibre optic cables from cable-to-cable, cable-to-equipment and equipment-to-equipment.
2	The connector must: Be field installable
3	Utilize a PC polishing on the tip to provide high yield during installation.
4	Meet EIA and IEC standards for repeatability.
5	<0.3 db
6	1000 Times
7	> 50 db
8	-40 deg C. to +85 deg.c
9	IEC 61754-20
10	SC/LC/FC

Optical Fibre Equipment Cords (minimum 3 meter)

S/N	Desired Specification/Qualitative Requirement
1	All optical fibre patch leads shall comprise of Single mode 9/125µm fibre with SC/LC/FC, fibre connectors terminated at each end. The optical fibre patch leads shall comply with the following specifications:
2	Optical Fibre – Corning Single Mode
3	Connector: Zirconia ceramic ferrule
4	Pre-radiuses and pre-polished ferrule
5	Simplex / Duplex
6	Color-coded Yellow for SM
7	Insertion Loss - <0.2 db
8	Cable: 9/125, SM
9	Repeatability - < 0.2 db
10	Durability – 1000 mating cycle
11	Working Temp : -40 deg C.to + 85 deg. C
12	Standard : G652D, G 657A & G 657B
13	Length : 1,2,3,5 & on request

Rack 24U

S/N	Desired Specification/Qualitative Requirement
1	24U Enclosure Frame-STEEL, Caster Wheels Set of 4 (2 with ceramic Brakes & 2 without Brakes), Floor Standing.

2	Minimum depth should be 600mm.
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Rack 42U

S/N	Desired Specification/Qualitative Requirement
1	42U Enclosure Frame-800X1000-STEEL, Caster Wheels Set of 4 (2 with ceramic Brakes & 2 without Brakes)
2	Adjustable Levellers set of 4
3	Glass Door-800-42U, Metal Door-800-42U-Vented, Side Panels-1000-42U-Vented
4	Mounting Hardware-(Pack of 20), FIU with 4 FAN 360CFM
5	Vertical Power Distribution Unit with 12 x 5/15 sockets Round Pin, 230 Volts AC, 32 Amp with Plug
6	Vertical Cable Manager-42U-Loop, Horz. Cable Manager-1U-Loop
7	Conforms to DIN 41494 OR equivalent ISO Standards
8	Adjustable 19" equipment mounting verticals provide the better mounting flexibility maximizing the usable mounting space
9	Depth adjustable mounting slots
10	Top and bottom Panel with ventilation and cable entry facility
11	Provision to mount the cooling fans on the top panel
12	Powder coated finish with pretreatment process meeting all industry standards
13	Grounding and Bonding Options can be provided
14	100% assured compatibility with all equipment conforming to DIN 41494. General industrial standard for equipment
15	Conforms to DIN 41494 or equivalent standard
16	Welded Frame, Lockable Toughened Glass Door, Metal Vented Door Steel,
17	DIN Standard 10mm Sq. Slots / Direct M6 Tap, 19" Mounting angles made of formed steel Powder Coated
18	Welded to Frame, Vented and Field Cable entry exit cut outs
19	Static Load 500 KG

Rack wall mount 12U stands cancelled.

Specifications for Passive Items Cable & others **Category 6A/E UTP, 4 Pair**

S/N	Desired Specification/Qualitative Requirement
1	Category 6 A Unshielded Twisted Pair 4 pair shall be compliant with ANSI/TIA/EIA-568-C.2 Supports Gigabit Ethernet (10GbaseT) standard. Operates at bandwidth of 500MHz.Exceeds all requirements

S/N	Desired Specification/Qualitative Requirement
2	Construction: 4 twisted pairs separated by internal X shaped, 4 channel, polymer spine / full separator. Half shall not be accepted.
3	The 4 pair Unshielded Twisted Pair cable shall be ETL Certified and UL@ Listed.
4	Conductor Solid Bare Copper and Jacket FR PVC and UL approved CM rated cable and Outer jacket sheath of the cable shall be LSZH.
5	Insulation High Density Polyethylene
6	Dielectric Strength of cable should be 1.0KV dc
7	Attenuation (< 17 db), Pair – to – pair and PS NEXT, ELFEXT and PSELFEXT, Return Loss, ACR and PS ACR.
8	Bending Radius should be < 25.4mm at -20°C ± 1°C and Pulling Force: 11.5 Kg
9	Construction: 4 twisted pairs separated by internal X shaped, 4 channel, polymer spine / full separator. Half shall not be accepted.
10	Cable should support operating Temperature from -20° to +70°C
11	Cable should come with printed sequential Length Counter on each meter
12	Cable support Conductor Resistance < 9.38 Ω /100m
13	Mutual Capacitance of cable should be < 5.6nF/100m
14	Max Resistance Unbalance of cable should be 5% Max
15	Capacitance Unbalance of cable should max 330pF/100m
16	Cable support Delay Skew: < 25nS, Operating Voltage: 72V and NVP: 68.2%
17	Category 6A UTP cables shall Enhanced performance cable for transmission of high speed data, digital and analogue voice and video signals on LANs. Supports Gigabit Ethernet (10GbaseT) standard. Operates at bandwidth of 500MHz.

FACE PLATE

S/N	Desired Specification/Qualitative Requirement
1	Single & DUAL square plate (86*86mm) , Quad in Rectangular shape (146*86mm) (ABS, UL94-HB)
2	Write on labels in transparent plastic window – supplied with plate PC (UL94V-2)
3	Screw hole covers – to be supplied with plate M3.5 x L25mm
4	It should have clear label for application identification and inbuilt shutters for protection against dust (ABS, UL94-HB)
5	Should be able to support variety of jacks – UTP5e, UTP6, UTP6A and STP

INFORMATION OUTLET

S/N	Desired Specification/Qualitative Requirement
1	INFORMATION OUTLET should support Category 6A, ANSI/EIA/TIA568 C.2 and 568A/B configuration
2	All information outlets for 100 Ω, 22-26 AWG copper cable shall: Use insulation displacement connectors (IDC)
3	Allow for a minimum of 200 re-terminations without signal degradation below

S/N	Desired Specification/Qualitative Requirement
	standards compliance limits.
4	Be constructed of high impact, flame-retardant thermoplastic with color and icon options for better visual identification.
5	IDC Contact Plating: Phosphor bronze with tin plated and Housing PC + glass fiber (UL 94 V-2)
6	Insertion force: 20N max (IEC 60603-7-4)
7	Contact Plating: 50 μinches gold on plug contact area
8	Information outlet (RJ45 jack) should be covered under ETL Verification program for compliance with TIA568.C.2
9	Operation Temp: -10 C to 60 C
10	Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent
11	Operating Life: Minimum 750 insertion cycles
12	Contact Material: Copper alloy

24 PORT JACK PANEL

S/N	Desired Specification/Qualitative Requirement
1	The Cat-6A transmission performance in compliance with ANSI/TIA-568-C.2, ISO/IEC 11801 Ed.2 and EN 50173-1 specification.
2	Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit.
3	Have port identification numbers on the front of the panel.
4	Should have self-adhesive, clear label holders and white labels with the panel Panel should be of 1U height with 24 port pre-loaded IO.
5	IDC: Suitable for 22-26 AWG stranded and solid wire compatible with both 110 & Krone punch down tools
6	Each port / jack on the panel should be individually removable on field from the panel.
7	IDC cap : ABS, UL 94V -2 and Phosphor bronze with tin plated and Made of powder coated steel
8	Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent
9	Jack Bracket set ABS , UL94V-0 rated
10	Operating Life: Minimum 750 insertion cycles
11	Contact Material: Copper Alloy
12	Contact Plating: 50μ" Gold plated on plug contact area
13	Contact Force: 20N max (IEC 60603-7-4)
14	Plug Retention Force: 15 lb.

MOUNTING CORDS

S/N	Desired Specification/Qualitative Requirement
1	Equipped with modular 8-position modular plugs on both ends, wired straight through with standards compliant wiring.
2	The Patch cords shall, at a minimum comply with proposed ANSI/TIA/EIA-568-C.2 Commercial Building Cabling Standards Transmission Performance Specifications for 4 pair 100Ω Category 6A Cabling.
3	Should have 50 micro inches of gold plating over nickel contacts.
4	Should be covered by ETL verification program for compliance with TIA 568.C.2
5	Conductor size: 24 AWG stranded bare copper
6	Cable flame property should follow VW-1 and FT-1 Standard
7	Jacket: PVC UL-94V-O
8	Temperature range: -10oC to +80oC
9	Operating life: Minimum 750 insertion cycles
10	Contact blade: Phosphor bronze
11	Contact plating: 50μ" Gold
12	Plug dimensions & tolerances compliant with FCC Part 68.500 and IEC 60603-7
13	Approvals: UL 444 for copper conductor
14	Dielectric with standing voltage:500 V AC
15	Insulation resistance : 35 M Ohm (Max)

Date : 06.07.2017
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(e-Courts)
High Court of Jammu and Kashmir