অসম লোকসেৱা আয়োগ
ASSAM PUBLIC SERVICE COMMISSION
Jawaharnagar, Khanapara, Guwahati-781 022

No. 24PSC/Comp-11/2018-2019 Dated Guwahati 12th June 2018

NOTICE INVITING RE-TENDER FOR SUPPLY, INSTALLATION & COMMISSIONING OF LOCAL AREA NETWORKING (LAN) IN APSC BUILDING

Sealed tenders affixing Court Fee Stamp of Rs. 8.25 (Rupee eight and twenty five paise) only are invited from the registered and well experienced manufacturer/company/organization/firm/entity and/or authorized dealer/sales partner for installation & commissioning of Local Area Network (LAN) and supply of related hardware in the office of the Assam Public Service Commission. The intending bidders must submit in details their experiences in this line with various organizations. Quotations complete in all respect should reach the undersigned on or before **13/07/2018** by **03:00 PM** and will be opened on the same day.

It is to be noted that all further updates or amendments if any regarding the tender dates, specifications and terms and conditions shall be notified and uploaded on the Commission's website. Therefore, interested bidders need to visit the website on a regular basis for such updates.

Details of tender may be downloaded from the Commission's official website **www.apsc.nic.in**

Sd/-
Secretary
Assam Public Service Commission
Jawaharnagar, Khanapara, Guwahati-22

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DETAILS NOTICE INVITING RE-TENDER FOR SUPPLY, INSTALLATION & COMMISSIONING OF LOCAL AREA NETWORKING (LAN) IN APSC BUILDING

INVITATION FOR QUOTATIONS

This invitation of Quotations is for Supply and installation/laying of active and passive components/equipment for local area networking of Assam Public Service Commission (APSC) and commissioning with the objective of interconnecting all the desktop personal computers/Servers/Other IT Infrastructure to harness the benefit of latest developments of Information Technology.

Tenderers are advised to study the Tender Document carefully. Submission of Tender shall be deemed to have been done after careful study and examination of the Tender Document with full understanding of its implications.

The Tenderer must be a registered manufacturer/company/organization/firm/entity and/or authorised dealer/sales partner. The tenderers shall submit the copy of Registration/License or Shop & Establishment Certificate as applicable, along with the tender, failing which the tenders are liable for rejection.

The Committee reserves the right of accepting and/or rejecting any/all Quotations without assigning any reasons thereof.

This authority is not under any binding to accept the lowest price quoted by the firms.

INSTRUCTIONS TO TENDERERS

1. Procedure for Submission of tender

Sealed tenders affixing Court Fee Stamp of Rs. 8.25 (Rupee eight and twenty five paise only) are invited from the registered and reputed vendors for supply, installation & commissioning of Local Area Networking (LAN) in Assam Public Service Commission (APSC).Vendor should be capable of supplying, Installation & Commissioning of the LAN under this tender. Quotations complete in all respect should reach the undersigned on or before **13/07/2018** by **03:00 PM** and will be opened on the same day.

2. Documents Comprising the Quotations

The Quotations prepared by the Tenderer shall comprise of the following components:

a. Bid Particulars
b. Detailed technical Proposal
c. Vendor Profile
d. Necessary documentary evidence for fulfilling the conditions of Pre-qualification as listed below.

3. Conditions for Pre-Qualification of Tenderers

The Tenderer should clearly indicate, giving explicit documentary evidence

3.1) **Domain Experience:** The Tenderer should be in the business of supply, installation & commissioning of LANs for at least three years. The Tenderer should have proven experience of successfully completing at least **three** projects.

3.2) **Technical Support Facility:** The Tenderer should have technical support office in the Guwahati region. Details & proof of service facilities for Technical Support on services, maintenance and availability of hardware components and manpower to be attached.

3.3) The Tenderer should be authorized partner/distributor or have Authorization from concerned Original Equipment Manufacturers (OEMs) for supply and support for all active and passive components quoted (Copy of certificate confirming that the bidder is an OEM/channel partner/Authorized Dealer to be attached).

3.4) The Tenderer should be registered with GST (Goods & Services Tax) Commission and should submit a copy of GST Registration Number.

3.5) The Tenderer must have expertise and experience in LAN troubleshooting and must have executed AMC of at least one Government organizations (Government Departments, Commissions and PSUs etc).

3.6) The Tenderer should submit the complete list of the engineers on the rolls of the firm with qualifications & experience as well as list of engineers whom they will be able to provide to this office in case they are selected in the tender.

3.7) The address of the Tenderer with Email ID, Contact No. and Fax Nos. in Guwahati should be furnished.

3.8) The Tenderer should submit trade license based in Assam.

3.9) IT return for the Assessment year 2015-2016, 2016-2017 & 2017-2018 to be submitted.

3.10) Security Deposit of Rs. 75,000/- to be pledged in favour of Secretary, APSC, Khanapara-22 in the form of Bank Guarantee (BG)/TDR.

Only the Tenderer meeting the above terms & conditions should submit their quotations in sealed cover.

GENERAL CONDITIONS OF CONTRACT

1. Standards of Performance

The Contractor shall perform the Services and carry out it's obligations under the Contract with due diligence, efficiency and economy, in accordance with generally accepted techniques and practices used in the industry and with professional engineering and consulting standards recognized by international professional bodies and shall observe sound management, engineering practices. It shall employ prudent technical and engineering practices. It shall employ advanced technology and safe and effective equipment, machinery, material and methods. The Contractor shall always act, in respect of any matter relating to this Contract, as faithful advisors to the Client and shall, at all times, support and safeguard the Client's legitimate interests in any dealings with Third Parties.

2. Warranty

The Tenderer warrants that the Goods supplied under this Contract are new, unused, of the most recent or current models and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

3. Documentation

The Tenderer shall supply the following documents after completion of the project:

- Complete set of Technical/Operation and Maintenance Manual
- An inventory of items delivered.

- Rack wise inventory
- Node & connectivity details
- Switch installation Report
- UTP/OFC Wiring diagram

4. Training

The Tenderer shall provide necessary training to the persons authorized by the client for using/maintaining the Networking facility.

5. Terms of Payment

Payments will be made after completion of the entire job only duly certified to have been completed and authenticated by the Programmer of this office. Bills in qudra-duplicate should be submitted to the Secretary Assam Public Service Commission. No advance payment will be made.

TECHNICAL SPECIFICATION

1. Intent of Specification

This tender document pertains to implementation of local area networking.
The proposed Local area network of APSC offices shall have around 65 nodes which may be expanded as per requirements.

2. Scope of Work

2.1 The scope of work in this tender covers networking of desktop computers/IT Peripherals located at 3 blocks of Assam Public Service Commission, Jawaharnagar, Khanapara, Guwahati-22

2.2. The internetworking of blocks is proposed to be done by the Fibre Optic cable between the 3 blocks.

2.3. The scope covers design/development of a suitable architecture/layout of the proposed networking system, preparation of bill of materials, pre-despatch inspection/testing, packing and forwarding, transportation, insurance and carrying out further activities at sites viz. unloading, storage, (space to be provided by the owner) further handling, erection, testing and commissioning including successful completion of acceptance tests and any other services specified.

2.4 Scope of Work shall also include:

A. Powering on equipment after ensuring correctness of terminations interfaces and power supply and making the system ready for testing and commissioning.

B. Testing of LAN Cables after laying, terminations and ferruling at both the ends. All testing tools and instruments shall be brought by the bidder and taken back after the testing.

C. Configuration of the equipment as per the requirements of APSC including Network segmentation, VLAN and Network Monitoring.

D. Field testing and commissioning of system.

E. Site acceptance tests to establish satisfactory performance of the equipment's as per specs.

F. Assistance for familiarization and operation of the installed system & services for 6 months after acceptance of system.

G. Training to Owner’s personnel.

3. General Technical Requirements

Equipment furnished shall be complete in every respect with all mountings, fittings, fixtures and standard accessories normally provided with such equipment's and/or needed for erection, completion and safe operation of the equipment's as required by applicable codes though they may not have been specifically detailed in the technical specification, unless included in the list of exclusions. All similar standard components/parts of similar standard equipment's provided, shall be inter-changeable with one another.

All equipment, accessories and cables supplied under this contract shall be in accordance with the latest applicable recommendations, regulations and standards of:

- CCITT/ITU
- ANSI
- IEC
- IEEE
- IETF
- EIA/TIA 568 Standards
- International Electro-technical Commission (IEC)
- cable (OFC and Cat 6) and cable accessories (OFC and Cat6) UL Listed, ETL Certified.

For parameters not covered under the above codes, internationally acceptable standards shall be accepted.

All interconnecting cables required to connect the communication equipment shall be furnished. All cables shall be fully assembled connector pre-terminated and factory tested as part of overall system checkout. Cables shall be neatly & properly tied up and dressed using appropriate cable hangers and Velcro bands. All the cables, connectors, sockets, panel's etc. shall be labelled for identification purpose.

The Tenderer shall also be responsible for deputing qualified personnel for installation, testing, commissioning and other services under his scope of work as per this specification. All required tools and tackles for completing the scope of work as per the specification is also the responsibility of the party.

The exact sitting of equipment's and cable routing shall be determined by the contractor in consultation with APSC computer section. The contractor shall prepare his proposed cable routing diagram.

The Tenderer shall furnish one complete sets of system and equipment instruction manuals and detailed installation operating and maintenance documentation along with the softcopy for the same. Manuals shall describe system operation, shall include detailed system and components description and shall cover the installation, operation, care and maintenance of all system components including diagnostics.

The Tenderer shall furnish complete, well-fabricated and reliably operating and secure systems as described in this document. Design and selection of equipment and software shall be consistent with the requirements of long term trouble free operation with highest degree of reliability and maintainability. All equipment shall be constructed to operate safely without undue heating, vibration, wear, corrosion, electromagnetic interference or similar problems and all software shall be proven, tested and reliable.

4. Bill of material included is given below:

The Tenderer has to mention the **Make and model** of items quoted.

S.L. No	Item Description	Qty.	UoM
1	Cat6 UTP Cable 305M	14	Roll.
2	Single Port Cat6 UTP I/O with face plate & SMB	65	Nos.
3	24-Port 10/100/1000 Mbps with 4 SFP uplink ports, Smart/Managed Switch	3	Nos.
4	24-Port 10/100/1000 Mbps with at least two 1000Base-T and two SFP uplinks, Smart/Managed Switch	4	Nos.
5	CAT6 24 Port patch panel-Loaded	7	Nos.
6	9u Rack with standard accessories	1	Nos.
7	6u Rack with standard accessories	6	Nos.
8	6 core outdoor armoured fiber optic cable single mode	500	Mtrs.
9	1000BaseT to 1000BaseLx (10Km) Single mode Media converter	4	Nos.
10	Single Mode SC-SC Fiber Optic Duplex Patch cord 3Mtr length	8	Nos.
11	Fiber Terminal Box	4	Nos.
12	Rj 45 Connector(100)	2	Box
13	Cat6 Patch cords 1 mtr. (Branded)	70	Nos.
14	1 KVA offline UPS	7	Nos.
15	1" PVC pipe	1600	Mtrs.
16	1.5" PVC pipe	300	Mtrs.
17	6AMP switch & 3 pin socket	7	Nos.
18	3 core 2.5 mm multistand wire	4	Rolls
19	0.75mm multistand wire for earthing	1	Roll

5. Details of Installation charges

Further, the quotations should also contain various installation charges under the following headings:
a) Job description b) Quantity c) Unit of Measure d) Rate e) Amount
The rates will be exclusive of all taxes and should be separately shown, wherever applicable.

6. Specifications of Components

Item Sl. No 1- Cat6 UTP Cable
Category 6 Unshielded Twisted Pair 4 pair 100W cable shall be compliant with ANSI/TIA/EIA-568-C.2-1 Additional Transmission Performance Specifications for 4-pair 100W Category 6 Cabling. Cat6 cable should be tested up to 600MHz.
Category 6 UTP cables shall extend between the work area location and its associated telecommunications closet and consist of 4 pair, 23 AWG, UTP.
The 4 pair Unshielded Twisted Pair cable shall be UL Listed, ETL Certified.
All Category 6 cables shall meet or exceed the following characteristics:
Construction: 4 twisted pairs separated by internal X shaped, 4 channel, polymer spine /full

separator. Half shall not be accepted.
23 AWG Conductor Solid bare Copper(4 pair)
Conductor Diameter 0.56±0.005mm (23 AWG)
Insulation :High Density Polyethylene
Jacket PVC
Outer Diameter 6.1 mm nominal
Temperature Range -20° to +70°C
OEM should have valid ISO 9001 & ISO 14001 for design & development for wired & wireless networking products.
All the passive components should be from same make
Item Sl. No 2 - Cat6 UTP Information Outlet
Single Port
Write on labels in transparent plastic window – supplied with plate
Screw hole covers – to be supplied with plate
Face Plate with shutter
Should be able to support variety of jacks – UTP, STP, Fiber, Coax etc.
Category 6, TIA568 C.2-1 – 250MHz
All information outlets for 100 W, 22-26 AWG copper cable shall:
Use insulation displacement connectors (IDC)
Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limits.
Be constructed of high impact, flame-retardant thermoplastic with color and icon options for better visual identification.
Shutter is on face plate
Insertion force: 20N max (IEC 60603-7-4)
IDC : Housing PC + glass fiber , UL 94 V-2, 568A/B configuration
Information outlet (RJ45 jack) should be covered under ETL Verification program for compliance with TIA568B.2-1,
Operation Temp: -10 C to 60 C
Jack Specification:
Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent
Operating Life: Minimum 750 insertion cycles
Contact Material: Copper alloy
Contact Plating: 50 µinches gold on plug contact area
Plastic Housing: Polycarbonate + glass fiber UL94V-2 rated
Operating Life: Minimum 200 Re-terminations
IDC Contact Plating: Phosphor bronze with tin plated
OEM should have valid ISO 9001 & ISO 14001 for design & development for wired & wireless networking products.
All the passive components should be from same make
Item Sl. No 3-24-Port 10/100/1000 Mbps with 4 SFP uplink ports, Smart/Managed Switch
Size - 19-inch standard rack-mount width

• 1U height
Number of Ports: 24-port 10/100/1000 Mbit/s, 4 SFP ports Uplink interface
Standards and functions of ports: IEEE 802.3 10BASE-T Ethernet (copper twisted-pair) IEEE 802.3u 100BASE-TX Fast Ethernet (copper twisted-pair) IEEE 802.3ab 1000BASE-T Gigabit Ethernet (copper twisted-pair) Auto-ANSI / IEEE 802.3 IEEE 802.3x Flow Control
Network Cables: UTP category. 6, 5, 5e (max. 100 m) EIA/TIA-568 100 ohm STP (max. 100 m)
Full/half duplex: Full/half duplex speed for 10/100 Mbit/s Full duplex for Gigabit speed
Interfaces transmission medium: Interfaces with support MDI/MDI-X
Switching Capacity: Minimum 56 Gbps
Through put Packet Forwarding Rate – more than 40Mpps
Transmission Method: Store-and-forward
Layer 2 functions: MAC Address Table IGMP Snooping Loopback Detection 802.3ad Link Aggregation Spanning Tree Protocol Flow Control Port Mirroring Multicast Filtering Configurable MDI/MDIX
VLAN: 802.1Q VLAN Group Management VLAN Asymmetric VLAN
QoS (Quality of Service): 802.1p Quality of Service 4 queues per port Queue Handling -Strict -Weighted Round Robin (WRR) Bandwidth Control -Port-based (ingress/egress, min granularity 10/100/1000 is 16 Kbps) QoS based on: -802.1p priority queues -DSCP -MAC address -EtherType -IP address -Protocol type -ToS -IP preference -IPv6 Traffic Class

-TCP/UDP port
Management: Web-based GUI Simplified CLI Telnet Server TFTP Client Configurable MDI/MDIX SNMP SNMP Trap Backup/upgrade firmware BootP/DHCP Client System Log SNTP ICMP v6 IPv4/v6 Dual Stack DHCP Auto Configuration
Access Control Lists (ACL): Profiles Access Rules ACL on the basis of - MAC-addresses - IPv4-address (ICMP/IGMP/TCP/UDP) - VLAN ID Actions ACL - Allow - Prohibit
Security: Port Security Protection against broadcast/multicast/unicast storm Static MAC-address Function DHCP Server Screening Preventing ARP Spoofing Attacks SSL - Support v1/v2/v3 - Support IPv4/IPv6 Traffic Segmentation Intelligent binding - Detection of connected devices and their binding - Inspection of ARP-packets - Inspection of IP-packets - Support for DHCP Snooping
Diagnostic Lights: Power(per device) Link/Activity/Speed (per port 10/100/1000 Mbit/s) Link/Activity/Speed (Per Port SFP)
Certifications: FCC Class A/CE Class A/ICES-003/VCCI Class A/C-Tick/BSMI
Item Sl. No 4 - 24-Port 10/100/1000 Mbps with at least two 1000Base-T and two SFP uplinks, Smart/Managed Switch
19-inch standard rack-mount width • 1U height
24-Port 10/100/1000 Mbps with at least two 1000Base-T and two SFP port for Uplink
Other specifications are similar to **Item Sl. No 3**

Item Sl. No 5 - Cat6 UTP Patch Panel
Should be made of powder coated steel, in 24 port configurations.
Allow for a minimum of 200 re-terminations without signal degradation below standards compliance limit.
Have port identification numbers on the front of the panel.
Should have self adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons.
IDC: Suitable for 22-26 AWG stranded and solid wire compatible with both 110 & Krone punch down tools
Each port / jack on the panel should be individually removable on field from the panel.
Improved cable management with optional cable management bar
The Cat-6 transmission performance is in compliance with the ANSI/TIA/EIA 568C.2 standard
Jack Connector Specification:
Plastic Housing: ABS , UL94V-0 rated
Operating Life: Minimum 750 insertion cycles
Contact Material: Copper Alloy
Contact Plating: 50μ" Gold plated on plug contact area
Contact Force: 20N max (IEC 60603-7-4)
Plug Retention Force: 15 lb.
IDC Connector Specification:
Plastic Housing: Polycarbonate, UL94V-0 rated or equivalent
IDC cap : ABS, UL 94V -0
Contact Material: Copper Alloy
IDC Contact Plating: Phosphor bronze with tin plated
Insertion Force: 20N max (IEC 60603-7-4)
Wire Accommodation: 22-26 AWG solid
OEM should have valid ISO 9001 & ISO 14001 for design & development for wired & wireless networking products.
All the passive components should be from same make
Item Sl. No 8 - Fiber Optic Cable
6 Core Single Mode Outdoor Armored Fiber Optic Cable
Protected by Glass-yarn in between corrugated steel tape & loose tube
Sequencial meter marking
Standards: ISO 11801, IEC60793-1, IEC60794-1.2, ITU-T REC G.652D, Telecordia GR-20 Core
The fiber type is a Matched Cladding Single Mode
Fiber dual coated with acryl ate coating.
The fiber is optimized for operation at 1310 nm and at 1550 nm.
Nominal Mode Field Diameter: 9.2 μm
Mode field diameter tolerance: ±4%
Cladding Diameter: 125 μm
Cladding diameter tolerance: ±1 μm
Mode field Concentricity error: < 1 μm
Cladding non-circularity: < 2 %

Germanium doped core with no phosphorus i.e. reduced tendency for hydrogen degradation.
UV-curable dual layer acryl ate coating, which ensures excellent micro bending and abrasion resistance.
Attenuation (of cable with fibers):
At 1310 nm: <= 0.36 dB/km
In the range 1285-1330 nm :<= 0.40dB/km
At 1550 nm : <= 0.22 dB/km
OEM should have valid ISO 9001 & ISO 14001 for design & development for wired & wireless networking products.
All the passive components should be from same make
Item Sl. No 13 - Cat6 UTP Patch Cord- 1Mtr
Category 6 UTP Patch Cord --1Mtr & 2Mtr
The Patch Cord shall, at a minimum comply with proposed ANSI/TIA/EIA-568-C.2-1 Commercial Building Cabling Standards Transmission Performance Specifications for 4 pair 100W Category 6 Cabling.
Equipped with modular 8-position modular plugs on both ends, wired straight through with standards compliant wiring.
Should have 50 micro inches of gold plating over nickel contacts.
Should be covered by ETL verification program for compliance with TIA 568C.2-1.
Conductor size: 24 AWG stranded bare copper
Max O.D.: 5.6mm (.22")
Jacket: PVC UL-94V-O
Temperature range: -10oC to +80oC
Operating life: Minimum 750 insertion cycles
Contact blade: Phosphor bronze
Contact plating: 50µ" Gold
Plug dimensions & tolerances compliant with FCC Part 68.500 and IEC 60603-7
Approvals: UL 444 for copper conductor
Dielectric withstanding voltage:500 V AC
Insulation resistance : 35 M Ohm (Max)
Operating temperature: -10oC to 80oC
OEM should have valid ISO 9001 & ISO 14001 for design & development for wired & wireless networking products.
All the passive components should be from same make

Sd/-
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Vendor Profile **Annexure-A**

1	Name of the Firm/Company	
1.1	Registration Number	
1.2	GST Registration No.	
1.3	PAN	
2	Year Established	
3	Address of Office	
4	Phone No.	
5	Fax No.	
6	E-mail Address	
7	Website	
8	Names of Govt. Deptt/Public Sector/Pvt. Sector/International clients to whom the tenderer has provided similar services to	
8.1		
8.2		
8.3		
8.4		
8.5		
9	No. of full time Tech. personnel currently on roll	
10	No. of years of Proven experience of providing similar Services	
11	Annual turnover Audited Annual turnover of the company in Rs. During last two years	
11.1	Turnover 2016-2017 FY	
11.2	Turnover 2017-2018 FY	
12	Various Ceritifications (ISO Certificaton/Six Sigma/ Nasscom/DOT Registered)	

Dated this day of 2018

Signature of Tenderer

Name & Designation
Company Seal

Check list

Please check whether following have been enclosed.

Trade license	Yes/No ☐
Registration Certificate	Yes/No ☐
Evidence for experience	Yes/No ☐
Evidence of Turn over	Yes/No ☐
Technical Support facility details	Yes/No ☐
GST Registration certificate	Yes/No ☐
Authorization certificates from OEM	Yes/No ☐
Vendor Profile (Annexure A)	Yes/No ☐
List Tech. personnel currently on roll	Yes/No ☐