INDIAN INSTITUTE OF TECHNOLOGY PATNA

(Store & Purchase Section)

Corrigendum-IV

Date: 14.11.2022

Subject: Expression of Interest (EoI) for **"Study, Implementation, Testing and Commissioning of Data and Telephone Network for Upcoming Sites at IIT Patna"**.

EOI Reference No.: **IITP/S&P/EPR/1/CC-88/2022-23, Dated: 20.09.2022.**

Tender ID: **2022_IITP_713576_1.**

Table 1: Modifications summary

Sl. NO.	Page No.	Section	Original Clause	Modification Clause	Justification
1	6	4	Sl no 1. Valid ISO and CMMI certification - ISO/IEC 20000-1 international standard for IT service management, ISO 9001:2000, ISO 9001:27000 and CMMI level 3. The relevant certification document with validity must be presented. Sl No. 4. The Bidder must have experience in executing at least two similar projects (Value, number of nodes and equipment) within the last 03 (Three) years. The bidder must produce the supporting documents Works order/purchase order and completion/performance certificates.	Sl No 1. Valid ISO and CMMI certification - ISO/IEC 20000-1 international standard for IT service management, ISO 9001:2000, ISO 27000 and CMMI level 3. The relevant certification document with validity must be presented. Sl No 4. The Bidder must have experience in executing at least two similar projects (Value, number of nodes and equipment) within the last 05 (Five) years. The bidder must produce the supporting documents Works order/purchase order and completion/performance certificates.	Sl. No 1 is correction. Sl. No 4 considering 2 year covid pandemic induced lockdown.
2	8	5	Modification in Broad Scope Of Work	New boys hostel has been added to the upcoming building. Details given in Table 2 below.	The Boys Hostel is live now.

3	11	7	Sl No 3. The devices in the network should have full IPv6 functionality. Sl No 6. The architecture should support separate, dedicated data, control, and management planes. Sl No 7. The architecture should support In-service software upgrade which will allow seamless upgrades with no traffic loss or performance impact.	Sl. No 3. The devices in the network should have full IPv6 functionality with SDN capability. Sl. No 6. The architecture should support separate, dedicated data, control/management planes. Sl. No 7. The architecture should support In-service software upgrade at the distribution layer which will allow seamless upgrades with no traffic loss or performance impact.	General Modifications in architecture for improving the overall solution and including features for future functionality.
4	11	7.1	Modification in List of estimated items- Active Network Equipment	Details given in Table 3 below.	General modifications based on technical inputs received during pre-bid query.
4	12	7.2	Modification in NMS/EMS support: The active components must be discoverable and manageable from existing NMS/EMS (Cisco Prime Infrastructure 3.1.0 and Cisco Data Center Network Manager for LAN (DCNM-LAN) or a campus hosted centralized H/W or S/W based NMS/EMS must be provided at no extra cost with following features: ● Real-time monitoring of network status, traffic patterns, client connectivity, access point and wireless controller status, and alarms. ● Object management ● State management ● Notification management ● Performance management ● Fault management ● Device configuration management, management of release, upgradations, patches etc. ● Rapid and comprehensive switch, endpoint, and Layer 2 device connectivity discovery ● Security alarms, including rogue access points, DoS and probe attacks ● Any other value-added services.	The active components must be discoverable and manageable from existing NMS/EMS (Cisco Prime Infrastructure 3.1.0 and Cisco Data Center Network Manager for LAN (DCNM-LAN) or a campus hosted centralized H/W or S/W based NMS/EMS must be provided with following features: ● Real-time monitoring of network status, traffic patterns, client connectivity, access point and wireless controller status, and alarms. ● Object management ● State management ● Notification management ● Performance management ● Fault management ● Device configuration management, management of release, upgradations, patches etc. ● Rapid and comprehensive switch, endpoint, and Layer 2 device connectivity discovery ● Security alarms, including rogue access points, DoS and probe attacks ● Any other value-added services. The commercial implication of additional licenses/subscription etc should be indicated.	General modifications based on technical inputs received during pre-bid query.
5	13	7.4	General Technical Specifications for Passive Cabling and Accessories:	OEM should have RCDD certified manpower in India for providing design & training support.	For improving the quality of passive networking design.

Table 2: Modified site wise data table:

Sl No	UPCOMING BUILDING	ZONE	Tentative IO port requirements	Estimated number of IO ports existing
1	Girls Hostel new*	HOSTEL	~~427~~ Nodes required for Wifi AP and Telephone)	234
2	Married Scholar Hostel	HOSTEL	128	128
3	WORKSHOP- CIVIL	ACADEMIC	15	10
4	WORKSHOP- MECHANICAL	ACADEMIC	15	10
5	WORKSHOP- CHEMICAL	ACADEMIC	15	10
6	D-type qtr- D5, D6, D7	RESIDENTIAL	156	144
7	Guest House	RESIDENTIAL	286	89
8	C-Type QTR-C3, C4	RESIDENTIAL	180	168
9	A-Type QTR-A1	RESIDENTIAL	168	162
10	B-Type QTR-B5	RESIDENTIAL	150	144
11	New Boys Hostel*	HOSTEL	~~1109~~ (Nodes required for Wifi AP and Telephone)	367
			2649	1466
	Expected number of IO ports that needs to be deployed along with passive cabling and cabling accessories for surface cabling			742

*Number of data nodes mentioned for hostel, however a complete wifi solution has to be provided.

**The existing ports/nodes must be properly tested with penta-scanning. For non-working ports found during testing, corresponding surface cabling needs to be done.

Table 3: Modified List of estimated items- Active Network Equipment

Link capacities:

        Between Core and Distribution layer: 40G

        Between Distribution and Access layer: 10G

        Between Access Layer and Data ports: 1G

        Between Access layer and Wifi Access Points: 1G from day 1, scalable to Multigig.

Sl. No.	Item	Quantity (approx.)
1.	Distribution Switch - Min. 12/24 X 1/10 data ports - 2 X 40G uplink - L2/L3 - managed - stackable-Rack-mountable 1U	
2.	24-port Access switch (Non-PoE) stackable, with sufficient number of stack cable	
3.	48-port Access switch (Non-POE) stackable, with sufficient number of stack cable	
4.	24-port Access switch POE/POE+ stackable, (with sufficient number of stack cable)	
5.	48-port Access switch POE/POE+ stackable, (with sufficient number of stack cable)	

6.	Basic IP Phone with all accessories and licenses required for call manager	
7.	Wifi access points - Wif6 capable, 4X4 MU MIMO at 5Ghz and Min. 2X2 MIMO at 2.5 Ghz, indoor with optional external antenna. Should be capable of working in both on-premise controller based or controller less deployments. Controller deployment from day 1. For controllerless deployments, it must have inbuilt controller capabilities to handle at least 50 APs. For cloud based controller/wifi management, the CSP must be in the MEITY approved list and OEM declaration needed that all data resides in datacenters in India. Backward compatibility with Wifi5.	
8.	Single mode SFP/SFP+/SFP28 Module of requisite capacity for distribution switch uplinks for connecting with core switch. SFP must be from the same OEM as switch or OEM certified.	
9.	Single mode SFP/SFP+/SFP28 Module of required capacity for distribution switch downlinks and access switch uplinks. It must be from the same OEM as switch or OEM certified.	

Other terms and conditions remain unchanged.