

6.2.2.62 GTP of Network PoE Switch

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Brand		To be mentioned by the bidder	
2	Model		To be mentioned by the bidder	
3	Brand Origin		To be mentioned by the bidder	
4	Country of Manufacturer/Origin		To be mentioned by the bidder	
5	Interface		10/100/1000 Base-T RJ45 ports: Should be min. 24 1000BASE-X Fiber SFP Ports: Should be min. 4	
6	PoE		Switch should have min. 190 Watt PoE power budget	
7	Upload & Backup		Must have USB port for config file upload/backup & firmware updates	
8	Packet buffer		Should be min. 1.5MB	
9	Processor		Should have min. 800MHz ARM processor	
10	Memory		Should have min. 512MB RAM	
11	Flash		Should have min. 64MB FLASH	
12	MAC Address Table		Should support 16K MAC Address	
13	Bandwidth		Should be min. 56 Gbps	
14	Packet forwarding rate		Should be min. 41.67 Mpps	
15	Jumbo frame support (bytes)		Must support 10K packet size	
16	Mean Time Between Failures (MTBF)		Should be min. 1,750,000 hours	
16	Protocols		Should have PoE controls/Port for remote power management with operation scheduling, Auto DOS (denial of service) prevention, IGMP Snooping and Querier for multicast optimization, Rate limiting and priority queuing for better bandwidth allocation, Port mirroring for network monitoring, SNMP and RMON remote monitoring, Configure in app and email alerts and notifications	
17	Cloud Management		Proposed device should be fully cloud-managed - Instantly activate cloud management from the web GUI - Cloud based network administration - Monitoring - Firmware management	
18	Network Management		Network Management System should allow proposed product to be deployed and managed through this single interface, Should provide Dual firmware images for reliability and uptime of network	
19	Certification		Offered product must have CB, RCM, KC, BSMI, ICES Class A, VCCI, BSMI, UKCA Certifications. Evidence should be submitted along with the proposal.	
20	Documentation		- Bidder should provide relevant documents as reference of their compliance of the specific feature. - Bidder must clearly mention the OEM model number. - Bidder must submit manufacturer authorization letter direct from OEM along with bid document.	

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
			- Bidder must submit Country of Manufacturer certificate along with proposal	
21	Installation		- Bidder should responsible for installation, Testing and commissioning.	
	Warranty		Bidder should provide three (03) years replacement warranty. If proposed model end of life (EOL), update model need to provide as replacement.	
22			Warranty activation should be ready from both website and Moblie Apps. Bidder should provide the activation link and Apps Name during the proposal submission.	

[The Tenderer should complete all the columns as required]

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6.2.2.63 GTP of CAT6 UTP Cable

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Brand		Commscope/Panduit/Prose or equivalent	
2	Model		To be mentioned by the bidder	
3	Brand Origin		To be mentioned by the bidder	
4	Country of Manufacturer/Origin		To be mentioned by the bidder	
5	Conformity		All passive products (Copper and Rack) must be from same manufacturer in order to ensure the end to end proper integration.	
6	Y Construction		Should be 4x2xAWG23	
7	Y Conductor		Should be AWG 23 solid copper	
8	Y Insulation		Should be HDPE	
9	Y Insulation Diameter		Should be 1.02±0.05mm	
10	Y Core		Should be 4 twist pairs	
11	Color Code		Should be White&Blue/Blue, White&Orange/Orange, White&Green/Green, White&Brown/Brown	
12	Y Filling		Should be "+" style	
13	Jacket Material		Should be LSZH	
14	Overall Diameter		Should be 6.2±0.4mm	
15	DC resistance		Should be ≤9.38Ω/100m	
16	Unbalanced resistance		Should be ≤5%	
16	Unbalance capacitance		Should be ≤330pF/100m	
17	Capacitance		Should be ≤5.6nF/100m	
18	Dielectric strength		Should be DC 1KV (3s No Fail)	
19	Insulation resistance		Should be ≥5000MΩ.Km	
20	Impedance (1-250MHz)		Should be 100±15 Ω	
21	Impedance (250-500MHz)		Should be 100±25 Ω	
22	Delay Skew (1-250MHz)		Should be ≤45ns/100m	
23	Delay Skew (250-500MHz)		Should be ≤45ns/100m	
24	Propagation Delay		Should be 536.3ns/100m@250MHz Should be 535.6ns/100m@500MHz	
25	Documentation		- Bidder should provide relevant documents as reference of their compliance of the specific feature. - Bidder must clearly mention the OEM model number. - Bidder must submit manufacturer authorization letter direct from OEM along with bid document.	
26	Installation		- Bidder should responsible for installation, Testing and commissioning.	

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6.2.2.64 GTP of RJ45 Connector

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Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Brand		Commscope/Panduit/Prose or equivalent	
2	Model		To be mentioned by the bidder	
3	Brand Origin		To be mentioned by the bidder	
4	Country of Manufacturer/Origin		To be mentioned by the bidder	
5	Standard		Should be TIA-568.2-D, ISO 11801	
6	FCC and ANSI compliance		Should Meet ANSI/TIA-1096-A (formerly FCC part 68).	
7	IEC compliance		Should be IEC-60603-7	
8	PoE compliance		Should Support PoE, PoE+ and proposed type 3 and 4 PoE++ applications for up to 100W.	
9	Plug Housing		Should be UL94V-0 rated clear polycarbonate.	
10	Contacts		Should be Gold plated phosphor bronze.	
11	Cable jacket diameter range		Should be 5.7mm-6.4mm	
12	Conductor insulation diameter range		Should be 0.91mm-1.1mm	
13	Documentation		- Bidder should provide relevant documents as reference of their compliance of the specific feature.	
			- Bidder must clearly mention the OEM model number.	
			- Bidder must submit manufacturer authorization letter direct from OEM along with bid document.	
14	Installation		- Bidder should responsible for installation, Testing and commissioning.	
			- Installation work should be completed through OEM certified engineer. Evidence should be submitted along with proposal.	

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6.2.2.65 GTP of Management PC

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Brand		To be mentioned by the tenderer	
2	Model		To be mentioned by the tenderer	
3	Country of origin		To be mentioned by the bidder	
4	Country of Manufacturer		To be mentioned by the bidder	
5	Processor		Min 14th Generation Intel Core i7 or higher	
6	Clock speed		Min. 5.40 GHz Turbo Frequency or higher	
7	Graphic Card		Should be Intel UHD Graphics 770 or higher	
8	RAM		Min. 16GB DDR5	
9	Hard Disk Drive		Min. 512GB SSD	
10	Keyboard		Should Provide Standard USB keyboard	
11	Mouse		Should Provide Standard USB optical mouse	
12	Chipset		Intel B660 Chipset or higher	
13	Ports		Min. 3 x USB 3.2 Gen 1 Type-A, 4 x USB 2.0, 1 x USB 3.2 Gen 1 Type-C, 1 x HDMI, 1 x DP, 1 x RJ45, Wi-Fi 6, Bluetooth, 1 x Combo Audio Por , 1 x Audio Out	
14	Documentation		- Bidder should provide relevant documents as reference of their compliance of the specific feature.	
			- Bidder must clearly mention the OEM model number.	
			- Bidder must submit manufacturer authorization letter direct from OEM/Distributor along with bid document.	
15	Warranty		Bidder should provide three (03) years full warranty	

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6.2.2.66 GTP of Precision AC

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Precision AC		Supply, installation, testing and commissioning of Precision Air Conditioning System for server room in 2 working and 1 standby mode.	
2	Brand		Vertiv or equivalent	
3	Model		To be mentioned by the bidder	
4	Origin of the Brand		To be mentioned by the bidder	
5	Country of Manufacture and Shipment		To be mentioned by the bidder	
6	Cooling Capacity		31kW minimum, Approx 8.5TR	
7	Sensible Heat Ratio		SHR: 0.97	
8	Unit Type		Air Cooled Down flow Type	
9	Air Distribution		Down flow with top return air	
10	Compressor Type		Scroll Compressor	
11	Number of Compressors		(Nos) 1	
12	Number of refrigerant circuit		Single	
13	Type o Refrigerant		R410a	
14	Temperature Control		(°C) Required temp ± 1	
15	Humidity Control		(%) Required humidity ± 5	
16	Unit Control		Microprocessor based Control	
17	Heater		Built in	
18	Humidification		Built in	
19	Dehumidification		Built in	
20	Indoor Dimension (HXWxD)		(mm) 930 x 995 x 1975	
21	Air flow rate		10100 m³/h	
22	Electrical supply		(V/Ph/Hz) 380-420/3/50	
23	Sound Pressure level		(dB (A)) < 47	
24	Temperature Control		Automatic	
25	Humidity Control		Automatic	
26	Dehumidification Control		Built in	
27	Filtration Control		Built in	
28	Expansion valves		Electronic Expansion valves	
29	Evaporator		DX Cooling Coil with hydrophilic coating	
30	Fan		The unit is fitted with direct-driven, high efficiency, single inlet, backward curved, centrifugal 'plug' type innovating EC fan(s). The fan(s) have an impeller with curved blades corrosion resistant made of fiberglass plastic	
31	Cabinet		Galvanized steel sheet	
32			The rear and the fans section panels are double-skinned, with 20mm (frontal fan section panel with 40mm) Class 'O' (A1 EU) fireproof insulation sandwiched between the skins to reduce noise emission and heat loss.	
33			Externally painted with Black 7021 color epoxy-polyester powder paint	
34	Air filtration		The standard filtration grade is F5 (CEN EN779 – respectively corresponding to EU5 according to Eurovent EU4/5) or G4	
35			The unit is fitted with a filter differential pressure switch, connected to the microprocessor controller to provide 'Filter	

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Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
			Clogged' warning indication.	
36	Controls		* The standard controls shall be of microprocessor based programmable PID logic controller, that monitors, displays and operates the precision cooling units, so that the environment is held within desired specifications.	
37			* Various modes of operation (cooling, heating, humidifying and de-humidifying).	
38			* Graphical displays of set temperature & humidity and achieved temperature & humidity	
39			* Date, time and unit identification display.	
40			* Visual system alarm indication (along with mutable audio alarm as well)	
41			* 48 hrs temperature and humidity graph display menu	
42			* Programmable services interval indication display	
43	Team mode operation		Unit is facilitate for Team mode operation to ensure maintaining active-standby system.	
44	Alarms		254 nos different alarms available in the controller.	
45			Alarm automatically removed when it goes to normal.	
46	Remote Monitoring Facility		Each PAC unit must be fitted with dedicated SNMP card by dedicated IP.	
47	Accessories for lowside work		Indoor Base, Outdoor Base, Oxygen, Acetylene gas for welding, Nitrogen for leak test, Refrigerant, PVC Pipe, GI Pipe, Fittings (Copper, PVC & GI) etc	
48	Installation, testing and Commissioning		Installation, testing and Commissioning by OEM Certified Engineer	

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6.2.2.67 GTP of Confort Air Condition

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Air Conditioner for Power Room, NOC & SOC Room		Supply, Installation, Testing and Commissioning Split Type Floor Standing/Wall/Ceiling mount Air Conditioning System for Power Room, NOC & SOC . Manufactured by Gree. Single Phase/Three Phase power input. Refrigerant type R410a/R32. Super Slim Design. Anti-Rust Cabinet. Easy-cleaned Panel. LCD/LED Display. Self-diagnosis & Auto-protection. Valve Protection cover. Power Room ACs need to be integrated with fire alarm system to shutoff the ACs automatically at the event of fire alarm activation.	
2	Power Room (1W+1S)		60000 BTU, 5 Ton Ceiling/Floor Mount type	
3	NOC Room (1W+1S)		36000 BTU, 3 Ton Ceiling Mount type	
4	SOC Room (1W+1S)		24000 BTU, 2 Ton Wall Mount type	
5	AC Control Panel		Auto timer with changeover should be installed to operate two comfort aircon in 8 hourly mode 24/7. Local assembled.	
6	Accessories		Copper pipe, Pipe insulation, Outdoor base, Power Cable, Electrical Socket, Circuit breaker, etc. as required basis. Indoor to outdoor pipe considered maximum 30 feet.	
7	Installation		Installation, testing and Commissioning	
8	Air Conditioner for Power Room, NOC & SOC Room		Supply, Installation, Testing and Commissioning Split Type Floor Standing/Wall/Ceiling mount Air Conditioning System for Power Room, NOC & SOC . Manufactured by Gree. Single Phase/Three Phase power input. Refrigerant type R410a/R32. Super Slim Design. Anti-Rust Cabinet. Easy-cleaned Panel. LCD/LED Display. Self-diagnosis & Auto-protection. Valve Protection cover. Power Room ACs need to be integrated with fire alarm system to shutoff the ACs automatically at the event of fire alarm activation.	
9	Power Room (1W+1S)		60000 BTU, 5 Ton Ceiling/Floor Mount type	
10	NOC Room (1W+1S)		36000 BTU, 3 Ton Ceiling Mount type	
11	SOC Room (1W+1S)		24000 BTU, 2 Ton Wall Mount type	
12	AC Control Panel		Auto timer with changeover should be installed to operate two comfort aircon in 8 hourly mode 24/7. Local assembled.	
13	Accessories		Copper pipe, Pipe insulation, Outdoor base, Power Cable, Electrical Socket, Circuit breaker, etc. as required basis. Indoor to outdoor pipe considered maximum 30 feet.	
14	Installation		Installation, testing and Commissioning	

[The Tenderer should complete all the columns as required]

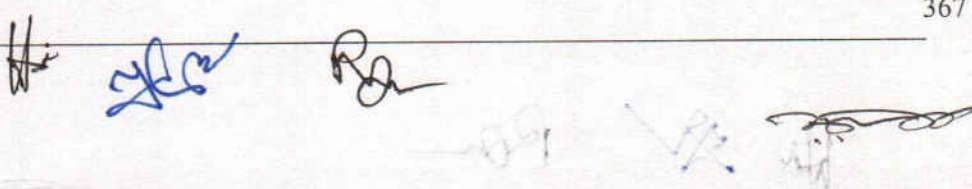
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6.2.2.68 GTP of Dehumidifier

(To be filled up and signed by the Manufacturer & Tenderer, otherwise the offer will not be acceptable)

Sl. No.	Name of Item	Unit	Required specifications	Full Technical Specification & Standard (to be mentioned)
1	Dehumidifier Power Room		Supply, installation, testing and commissioning of Dehumidifier, minimum 18-20 liter /24 Hour, input 1 Φ / 220VAC / 50Hz. Working Environment 5 ^o -35 ^o C. Bucket Volume minimum 4 Liter. Touch operation. Status Display. Automatic humidity control. Full water tank warning signal. Auto frost control. Air - purifying filter. Full water tank warning signal. Continuous drainage. Power rotary compressor. Easier mobility with convenient Wheels. Supply and installation including Power Supply, Drain line, etc as required. Brand: White Westinghouse/Gree/Midea or internationally reputed make.	

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