(A Govt. of West Bengal Undertaking) Plot – 5, Block – BP, Sector – V, Salt Lake, Kolkata – 700091

SUPPLY, INSTALLATION, TESTING, COMMISSIONING (SITC) OF PHYSICAL INFRASTRUCTURE OF A HIGH PERFORMANCE DATACENTER WITH ONE YEAR WARRANTY + FOUR YEARS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (CAMC)

AT

POLICE TRAINING SCHOOL (PTS), KOLKATA POLICE

No. WTL/KP/DC/23-24/012 Date: 14.06.2023

Tendering Authority

WEBEL TECHNOLOGY LIMITED

(A Govt. of West Bengal Undertaking) Plot-5, Block – BP, Sector – V, Salt Lake City, Kolkata – 700091 www.wtl.co.in

WTL/KP/DC/23-24/012 dated 14/06/2023

(A Govt. of West Bengal Undertaking) Plot – 5, Block – BP, Sector – V, Salt Lake, Kolkata – 700091

NOTICE INVITING e-TENDER

Online Tender documents are invited for implementation of "Supply, installation, testing, commissioning (SITC) of physical infrastructure of a high performance datacenter with one year warranty + four years comprehensive annual maintenance contract (CAMC)"

Bids are invited from reputed System Integrators having sufficient experience and credentials for successful completion of "Similar Nature" of work in a Central or State Government Department/PSU/Autonomous Body. WTL has been chosen as the execution authority for the same.

1.	Tender No. & Date	WTL/KP/DC/23-24/012 dated 14.06.2023
2.	Tender Version	1.0
3.	Description of project	Supply, installation, testing, commissioning (SITC) of physical infrastructure of a high performance datacenter with one year warranty + four years comprehensive annual maintenance contract (CAMC) for Kolkata Police
4.	Tender Fee	₹ 6000.00 (Rupees Six thousand only). The amount to be transferred online through e-tender portal.
5.	Earnest Money Deposit	₹ 900,000.00 (Rupees Nine Lac only). The amount to be transferred online through e-tender portal.
6.	Download start date	14.06.2023
7.	Pre-Bid Meeting date & time	 22.06.2023 at 12.00 Hrs. (On-Line Meeting) Pre-Bid meeting will be organizing online platform only. Only queries reaching WTL by 21.06.2023 at 15.00 Hrs. will be taken for decision. Interest bidders are requested to send mail to purchase@wtl.co.in for participation of online pre-bid meeting. Based on request WTL will share meeting id / links for meeting. If there is any change in date and time, then will inform. Queries will be sent to Purchase Department (purchase@wtl.co.in)
8.	Bid Submission Start date & time	04.07.2023 at 14.00.hrs
9.	Last date & time of EMD & Tender Fee submission	Before Uploading of Tender
10.	Last date & time of Bid Submission	11.07.2023 at 13.00.hrs.
11.	Date & time of Technical Bid opening	13.07.2023 at 13.00.hrs.
12.	WTL Address	WEBEL TECHNOLOGY LIMITED (A Govt. of West Bengal Undertaking) Plot - 5, Block – BP, Sector – V, Salt Lake City, Kolkata – 700091.
13.	Contact Number	033-23673403-06

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<u>SECTION – A</u>

BACKGROUND & OBJECTIVE OF THE PROJECT

Kolkata Police is having its main datacenter located at Kolkata Police Headquarters, Lalbazar, Kolkata. The Nirbhaya project included the design, supply, installation, testing, commissioning, training and maintenance to set up a robust, resilient, secure, scalable, manageable network and distributed clustered storage infrastructure which shall be able to cater to about 9000+ surveillance cameras in near future and integrating existing system in this proposed system with advanced analytics and emergency response systems. As part of the Nirbhaya project, as robust, resilient, secure and scalable datacenter infrastructure is proposed to be setup at Police Training School (PTS) of Kolkata Police.

The proposed Nirbhaya datacenter shall be designed as per Tier-2 guidelines and datacenter best practices ensuring a minimum facility availability of 99.5 % annually.

System Integrator (SI) has to supply, install, commission and integrate the datacenter infrastructure as per detailed scope of work and minimum specifications as elaborated in this tender. The System Integrator has to study the tender and submit proposals for the total requirement as asked for. Detailed Bill of Quantity (BOQ) in line with the tender requirements has to be provided by the System Integrator. A tentative 'Tentative Bill of Quantity' has been included. Proposals without detailed bill of quantities may be rejected without assigning any reason. The successful System Integrator shall have the entire responsibility to complete the datacenter infrastructure and integrate the same for proper functioning. As part of the integration, the existing infrastructure OEM's of Rack, UPS, PAC and DG has to coordinate and support the datacenter System Integrator in every respect. System Integrator has to done the detailed site survey before submitting the final proposal. All necessary Civil Engineering, Mechanical Engineering, Electrical Engineering and other IT lay out drawings has to be submitted along with the bid documents. Without proper engineering drawings bid will be rejected.

1.	Name of Project	"Supply, installation, testing, commissioning (SITC) of physical infrastructure of a high performance datacenter with one year warranty + four years comprehensive annual maintenance contract (CAMC)"
2.	Project User	Kolkata Police
3.	Execution Partner	Webel Technology Limited
4.	Location	Police Training School, AJC Bose Road, Kolkata
5.	Objective of the Project	Create a robust and scalable datacenter physical infrastructure to house the IT hardware procured under the Nirbhaya project of Kolkata Police.
6.	Scope of the Project	Selected System Integrator will supply, install & commission the datacenter physical infrastructure and provide five years warranty support for the equipment's / systems delivered under this project.
7.	Warranty/CAMC	Five Years (One Year warranty + Four years CAMC after completion of one year warranty period) from date of Go- Live of the project.
8.	Project Completion Period	Four Months from the date of issuance of the Purchase Order.

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<u>SECTION – B</u>

SCOPE OF WORK & BILL OF MATERIAL

a) The scope of work covers the supply, installation, testing & commissioning of a high availability datacenter infrastructure at PTS, Kolkata Police, as detailed in the specifications, complete with all accessories required for efficient and trouble free operations.

b) The detail specifications of the datacenter infrastructure shall adhere to TIA 942 guidelines and shall be composed of multiple active power and cooling distribution paths, but only one path active.

c) The datacenter infrastructure design should include all necessary civil and interior works, a fault tolerant electrical distribution system, automatic switching between utility and secondary power, redundant or backup power supplies, environmental controls (e.g., precision air conditioning, cold aisle containment, fire suppression, smoke detection, water leak detection, humidity sensor, Termite treatment etc.), door access control system, racks and local area networking.

d) The Nirbhaya datacenter will cover approx. area of 1800 sqft on ground floor.

e) The datacenter will be located at Police Training School, Kolkata.

f) The design should be able to accommodate the existing infrastructure components from the Nirbhaya phase 1 project as listed below.

i) Server Racks with dual PDU – 42U – 800 x 1200 mm- 06 Nos

ii) Precision AC (down flow type) – 6.5 Tr - 03 Nos

- iii) UPS (with battery backup) 40 KVA 01 Set
- iv) Diesel Generator with AMF Panel 82.5 KVA 01 No

(NOTE : There is no auxiliary UPS under the Nirbhaya Project phase 1. System Integrator should take care to either provision the same if required or design the infrastructure accordingly)

g) The Server room (1130 sqft approx.) to be partitioned to create two rooms accommodating 38 Nos of 42U racks, assuming the rack dimension as 42U (H) x 600 (W) x 1200 (D) mm. / 42U (H) x 800 (W) x 1200 (D) mm Currently there would be 12 racks which may scale up to 14 racks in Server Room-1. Racks to be arranged in rows with each rack row containing at least one network rack. All racks should have dual PDU. The design and placement of the racks inside the Server Room should ensure enough free space for human and equipment movement.

h) Server room should have a raised access floor, as per specifications, with a minimum finished floor level of 600 mm. False ceiling to be considered for Server, UPS, Battery, Telecom and Monitoring Rooms. False ceiling should be at least 2400 mm from the raised FFL. All entry and exterior doors of the facility should be fire rated metal doors with view panes, as per specifications. Doors should be minimum 1200 mm wide and minimum 2100 mm in height.

i) The racks to be cooled using down flow type precision AC's of adequate capacity. The floor plenum to be used as the duct for the cold to move upto the racks through air flow grills located at suitable places in front of the racks. The hot air shall return to the PAC's along the false ceiling creating a natural air convection as per perimeter cooling design.

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j) For greater cooling efficiency, cold aisle containment may be deployed.

k) The precision cooling units to be placed at suitable locations and should be integrated to operate in N+1 mode. The operation of each PAC should be rotated sequentially in every 12/24 Hrs.

l) The System Integrator should submit detailed heat load calculations to cater to the current set of racks and all future racks. Average IT load of 5 KVA may be considered for Server/Storage Racks and 2 KVA for Network Racks. Solutions with improper heat load calculations may be rejected without assigning any reason.

m) Utility power from the building mains / transformer has to be drawn upto the datacentre electrical panel. Adequate utility power, as may be required currently or in the future, shall be provided by Kolkata Police on requisition and design. Secondary power from the DG set should also be terminated in the datacenter electrical panel. The electrical design should be able to switch to a higher utility source (transformer) and secondary power (DG) in future by adding new electrical panels and without discarding the existing electrical panel as to be supplied now.

n) All racks in the datacenter should run on UPS power only. All fire and security systems, workstations and emergency lights will also have to be powered through UPS. UPS power to the racks shall be fed through adequate sized cables running in dual paths below the raised floor. The electrical distribution design should ensure that UPS power is not interrupted in the event of failure of one UPS or fault in one UPS power path. UPS and batteries to be placed in separate airconditioned rooms and away from the IT racks.

o) The entire datacenter facility should have addressable fire detection and alarm system and adequate fire suppression system, as per specifications. The system should be able to generate flashing alarm beacons in case of any possible fire incidents in any part of the datacenter facility.

p) Novec 1230 based fire suppression system, which is highly recommended for datacenter facilities as per NFPA guidelines, to be considered for contained areas and server farm racks, as per specifications and design. Areas protected under Novec 1230 should be flooded with the clean agent in case of any authentic fire incident and to put out the fire within a maximum of 15 seconds from authorization. FM 200 or HFC 227eea or any other green house gases will not be accepted.

q) All entries to the datacenter facility to be authorized only through electronic access control system to be implemented, as per specifications. Server farm main entry to be authorized only through biometric access control to ensure security of the datacenter facility. All users of the facility to be enrolled under the access control system and access cards issued. Proper logs / registers to be maintained at the site of all such users of the datacenter facility. Few cards shall be reserved for visitors. A functional visitor management system has to be incorporated with appropriate training.

r) Water leak detection system has to be implemented for the Server farm area, as per specifications, to detect any water leakages from the PAC units.

s) Ultrasound based rodent repellent system has to be implemented for the entire datacentre facility, as per specifications. Termite treatment also may consider in SoW.

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t) IP based CCTV surveillance, as per specifications, to be implemented for the entire datacentre facility for 24×7 monitoring. To operate in day & night conditions the cameras should be provided with adequate IR capability. CCTV storage should be minimum 1 month. VMS should have facility of mobile app.

u) A state-of-art building management system (BMS) shall be implemented which shall integrate and monitor the input power sources of the datacentre, DG, UPS, PAC, fire detection & alarm, access control and water leak detection systems and display through a single dashboard. Necessary workstations, controllers, displays, sensors and software's to be included with a minimum of 250 point integration.

v) The UPS, battery, telecom and monitoring rooms to be air-conditioned using wall mount industrial room air-conditioners, as per specifications.

w) A highly available and redundant network cabling to be considered and implemented using OM4 fibre backbone and fibre optic cassettes which is most suitable for large surveillance applications. All network cables inside the Server farm shall run over the top of racks. All network cables shall run through wire mesh cable trays suspended below the false ceiling. The system integrator has to submit a detailed network cabling diagram as part of the solution failing which the bid may be rejected without assigning any reason.

x) The scope of work would include supply, installation, testing and commissioning of all the systems as listed under the Schedule of Requirements including Warranty/CAMC of Five Years (One Year warranty + Four years CAMC after completion of one year warranty period) from date of Go-Live of the project.

y) Water and electricity for construction works as well as running the datacenter infrastructure to be provided by Kolkata Police.

z) System Integrator has to arrange for all transportation of materials up to the proposed facility building including un-loading, un-packing and mounting.

za) A detailed bill of material and general layout as well as engineering drawings for all Civil, Mechanical and Electrical showing the placement of equipment to be submitted along with the proposal.

Bidder's has to done the detailed site survey before submitting the final proposal. All necessary Civil Engineering, Mechanical Engineering, Electrical Engineering and other IT lay out drawings has to be submitted along with the bid documents. Without proper engineering drawings bid will be rejected.

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Datacenter Peak Load

Sn	Component	Qty	Assumed Peak Load / Unit (KVA)	Tolerance (%)	Assumed Peak Load (kW)	UOM
1	Server Racks	28	5.00	3.00%	115.36	kW
2	Storage Racks	4	6.00	3.00%	19.78	kW
3	Network Racks	6	2.00	2.00%	9.79	kW
4	BMS / Security systems	1	0.80	0.00%	0.64	kW
5	PAC (12 Tr) – Active – Phase-2	3	44.00	0.00%	105.60	kW
6	PAC (6.5 Tr) – Active – Phase-1	3	22.00	0.00%	52.80	kW
7	CAC (2.0 Tr)- Active – Phase-1	3	2.80	0.00%	6.72	kW
8	Lighting	1	1.20	0.00%	0.96	kW
9	PC Workstations	3	0.30	0.00%	0.72	kW
10	Load on spare power sockets	8	0.25	0.00%	1.60	kW
	TOTAL				313.97	kW
	CURRENT - IN 3Ø				546.64	Amps
	TOTAL CURRENT - IN 3Ø (Rounded)				600.00	Amps
					392.00	KVA
	Peak Minimum Transformer Rating				400.00	KVA

Exclusions in the scope of work but co-ordination with existing vendor has to be done for I&C job.

- a) Supply, Installation, Commissioning of Transformer for the datacentre facility.
- b) Supply, Installation, Commissioning, Testing, Integration and Maintenance of Nirbhaya Project phase 1 Racks.
- c) Supply, Installation, Commissioning, Testing, Integration and Maintenance of Nirbhaya Project phase 1 40 KVA UPS and associated battery banks.
- d) Supply, Installation, Commissioning, Testing, Integration and Maintenance of Nirbhaya Project phase 1 Precision AC's (6.5 Tr) including all low side works.
- e) Supply, Installation, Commissioning, Testing, Integration and Maintenance of Nirbhaya Project Diesel Generator (82.5 KVA), AMF Panel and all associated low side works and approvals. Further excluded are the fuel storage or refilling costs.
- f) Supply, Installation, Commissioning, Testing and Integration of Public Address System.
- g) Supply, Installation, Commissioning, Testing and Integration of Auxiliary UPS.
- h) Roof treatment is excluded. Shall be done by the client and finished before installation of equipment's on the roof top, e.g. Outdoor units of AC units.
- i) Supply of continuous water line for the Precision AC units. To be provided by the client.
- j) Warranty beyond 60-months of supplied equipment's as per the scope of work.
- k) Resident resources for operation of the datacentre facility. (Included as OPTIONAL)
- l) Core switch, access switch and servers for networking.
- m) DG operation fuel and electricity cost for running the datacentre facility.
- n) New DG Set of minimum 400 KVA shall have to be supplied & installed by the client before increasing the racks beyond eight (08) racks or IT load of 40 KVA.
- o) Additional UPS modules to be purchased and supplied by the client before increasing the racks beyond eight (08) racks or IT load of 40 KVA.

Design considerations / assumptions

a) Average IT load for Server Racks – 05 KVA

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- b) Average IT load for Storage Racks 06 KVA
- c) Average IT load for Network Racks 02 KVA
- d) One network rack per row (end of row)
- e) Total provision of 28 Server Racks, 04 Storage Racks and 06 Network Racks.
- f) 21 Server Racks & 03 Network Racks shall be 42U, 600 x 1200 mm.
- g) Transformer of 400 KVA to be supplied /installed and made available for datacentre.
- h) 82.5 KVA DG Set to be replaced by 01 x 400 KVA DG Set before rack expansion beyond eight (08) racks.
- i) Power cabling from DG to Electrical LT Panel is in SI scope. From transformer to LT Panel is scope of client.
- j) Network Rack 1 to each Server Rack: 12F MPO OM4 trunk + 12 CAT6A Copper ports
- k) Network Rack 2 to each Server Rack: 12F MPO OM4 trunk + 12 CAT6A Copper ports
- l) Network Rack 1 to Network Rack 2 2x12F MPO OM4 trunk + 24 CAT6A Copper
- m) Storage Rack to each Server Rack 12F MPO OM4 trunk
- n) Network Rack 1 to Telco 12F MPO OM4 Trunk
- o) Network Rack 2 to Telco 12F MPO OM4 Trunk

Requirements of Phase-2 (Not to be quoted as part of this bid)

- p) Racks, as per requirement.
- q) Cold Aisle Containment for Server Room-2, if required.
- r) Precision AC (PAC), 04 x 12 Tr for Server Room-2.
- s) 02 x 200 KVA UPS with 30 min battery back
- t) 01 x 400 KVA DG Set
- u) Fire Suppression for Server Room-2
- v) Network cabling with all accessories for Server Room-2.
- w) VESDA for Server Room-2
- x) Associated warranty / CAMC for above components.

Bill of Material

SL.	Description of Supply / Service	UoM	Qty
A	CIVIL & INTERIORS		
1	FURNITURE		
1.1	Computer Workstation Table, minimum 600 x 1000 mm, with laminated table top (25 mm thk), SS wire manager, key board tray, CPU trolley and a lockable drawer, as per design and specification.	Nos	3
1.2	Overhead storage units, as per specification.	Nos	3
1.3	Office Chairs : Medium back, revolving chairs, as per specification.	Nos	3
1.4	Stainless Steel (SS) Waste paper basket, as per specification.	Nos	3
1.5	Door Mats, as per specification.	Nos	2
2	DOORS		
2.1	Aluminium framed, powder coated single shutter glass door with door hinges, handles and accessories, size 1200 mm x 2100 mm	Nos.	1
2.2	Fire rated, dual shutter metal door with door hinges, lock, handles and accessories, size 1500 mm x 2100 mm	Nos.	2
2.3	Fire rated, single shutter metal door with door hinges, lock, handles and accessories, size 1200 mm x 2100 mm	Nos.	2
2.4	Fire rated, dual shutter metal door with door hinges, lock, handles and accessories, size 1800 mm x 2400 mm	Nos.	1
2.5	Fire rated sliding metal door with accessories, size 1500 mm x 2100 mm	Nos.	1
2.6	Installation of above	Nos	7
3	FALSE CEILING		

3.1	Plain gypsum false ceiling with approved G.I Frame work and hangers including openings for lights and air conditioning grilles to be framed with G.I. members. Area includes all horizontal, vertical and curved surfaces.	Sqft	400
3.2	Mineral Fibre exposed grid ceiling, lay-in type, board 15 mm thick and 600mm x 600 mm in true horizontal level suspended on locking grid system made of hot dip galvanized steel section powder coated as per manufacturers specification including making opening for electrical & air conditioning fitting complete as directed. The tiles are to be installed on 15 mm grid system having fire resistance REI 180 and as per specification s.	Sqft	1250
3.3	Installation of above	Sqft	1650
4	STRUCTURAL BEAMS		
4.1	Fabrication/construction of metallic structure over the Server Rooms and associated areas for supporting the false ceiling and other devices.	Lot	2
4.2	Installation of above	Lot	2
5	RAISED ACCESS / VITRIFIED FLOORING		
5.1	Raised Access flooring system with steel panel having a cementitious core, HPL pre-fixed, PVC beads with edge support rigid grid under structure system. Access floor system to be installed shall provide a maximum finished floor height of 600mm from the existing floor level. The system shall provide for suitable floor tiles, pedestals and stringers designed to withstand various static loads and rolling loads.	Sqft	1400
5.2	Installation of above	Sqft	1400
5.3	Supply of double cup panel lifter.	Nos	2
5.4	Alumunium foil faced thermal insulation.	Sqft	1200
5.5	Fixing of insulation including cost of adhesive and supports, if any.	Sqft	1200
6	WALL TREATMENT		
6.1	Acrylic emulsion paint.	Sqft	6000
6.2	Wall Putty over cement plaster.	Sqft	6000
6.3	Enamel paint over a primer coat, for all exposed metal structures.	Sqft	400
6.4	Labour charges for paint & wall putty.	Sqft	12000
7	BRICK WORK		
7.1	Brick work in cement mortar of 1 : 4 (1 cement : 4 sand) with Class-I bricks, as per requirement including blocking of windows.	Sqft	1500
7.2	Plastering with cement mortar including water proofing mix in cement of 12 mm thick in interior face of the walls and concrete columns including hacking the concrete surface brushing,G.I mesh, scaffolding, curing and surface shall be smooth trowel finish as per standard practices.	Sqft	1500
8	DISMANTLING / WALL CUTTING / WALL CHASING WORKS		
8.1	Dismantling of wall/partitions, removal of wooden flooring, removal of CAC units, door wall cutting, wall chasing for providing conceled cable paths, boring holes in walls for cable entries, sealing with fire sealants and finishing.	Lot	1
8.2	Main door height extension	Lot	1
9	MISCELLANEOUS		
9.1	Construction of ramps, as per layout and design.	Nos	1
9.2	Construction of steps, as per layout and design.	Nos	1
9.3	Antiskid tape on the ramp / steps, at 6" intervals, of approved make / color.	RFT	50
9.4	Raised floor edge finishing.	Sqft	300
9.5	Sun film for glass doors.	Sqft	20
9.6	Signage and displays and instruction display charts.	Nos	10
9.7	Construction of PAC ODU mounting platform	Nos	8

9.8	Construction of DG Foundation	Nos	1
B	ELECTRICAL DISTRIBUTION SYSTEM		
1	Main LT Panel		1
1.1	Design, manufacture, supply of LT PANEL, including Sub-Panel, cubicle type, made of 14 SWG CRCA sheet steel, totally enclosed, IP-42, floor mounted, as per specifications.	Nos	I
1.2	Transportation, Installation & Commissioning of LT Panel	Nos	1
2	UPS Output Panel- Server Room-1 & 2		
2.1	Design, manufacture, supply of UPS Output Panel, cubicle type, made of 14 SWG CRCA sheet steel, totally enclosed, IP-42, as per specifications.	Nos	2
2.1	Installation of the above	Nos	2
3	PAC DB		
3.1	Supply of Distribution Boards (For PAC of Server Room-1 & 2)	Nos	2
4	Rack DB - Server Room-1 & 2		
4.1	Supply of Distribution Boards (For Server Room-1 & 2 Racks)	Nos	4
5	CAC DB		
5.1	Supply of Distribution Boards (For CAC)	Nos	1
6	Aux. UPS DB		
6.1	Supply of Distribution Boards (For Fire & Security, Workstation)	Nos	1
7	Lighting & Raw Power DB		
7.1	Supply of Distribution Boards (For Lights & Raw Power)	Nos	2
7.2	Installation of above distribution boards	Nos	10
7.3	63 A Single Ph. Cu. Bus Bar (Fabricated)	Nos	1
7.4	Industrial Sockets for connecting to rack PDU's, as per considered. For 05 Network Racks - 10 Nos 20 Amp Sockets For 01 Telco Racks - 02 Nos 20 Amp Sockets For 29 Server Racks - 58 Nos 32 Amp Sockets For 04 Storage Rack - 08 Nos 63Amp Sockets	Nos	108
	Spare – 30 Nos (as per site requirement)		
9	CABLING		
9.1	Estimated cable sizes for various equipments of the datacenter. Cable sizing and lengths are approximate and are subject to change. Actual sizing and length shall depend on load and site conditions.		
9.2	3.5C 240 Sqmm Al. Armoured .XLPE Cable	Mtrs	200
9.3	3.5C 185 Sqmm Cu. Flex Cable	Mtrs	50
9.4	3.5C 95 Sqmm Cu. Flex Cable	Mtrs	50
9.5	3.5C, 95 Sqmm Al Armoured XLPE Cable	Mtrs	50
9.6	3.5C, 35 Sqmm Cu. Flex Cable	Mtrs	25
9.7	3.5C, 120 Sqmm Cu. Flex Cable	Mtrs	25
9.8	3.5C, 25 Sqmm Cu. Flex Cable	Mtrs	50
9.9	3.5C, 16 Sqmm Cu. Flex FRLS Cable	Mtrs	100
9.1	3C 6 Sqmm Cu. Flex FRLS Cable	Mtrs	100
9.11	3C 6 Sqmm Cu. Flex FRLS Cable (Racks)	Mtrs	160
9.12	3C 4 Sqmm Cu. Flex FRLS Cable (Racks)	Mtrs	900
9.13	1C 1.5 Sqmm Cu. Flex FRLS Cable	Mtrs	6000
9.14	4C 2.5 Sqmm Cu. Felx Cable FRLS	Mtrs	300
	Jointing the ends of the sizes as mentioned above sizes of PVC insulated and armoured cables including supply of brass cable	Lot	1
9.15	glands, cable sockets and all jointing materials:		
9.15 9.16		Lot	1

10.1 includes all necessary supporting brackets, clamps, saddles, fixing Mtrs. andware etc. Supply of MS cable trays / supports / brackets /base frame of 80 10.2 warious sizes including straightening outting, welding on existing structure, grouting, leveling etc. as required. 100 10.3 Installation of cable tray Lot 1 11 EARTHING 100 100 Supply of Class B, 40 mm dia, 3.0 metre long earth pipe set (as per IIS: 3043) with back fill compound, bus for termination, SS holts, nuts, and washers etc. including heavy duty cast iron cover and test link. 4 11.2 3043) with alternate layers of charcoal & salt, including heavy duty cast iron cover and test link. Nos. 2 11.3 25 mm x 3 mm Cl Strip Mtrs 100 11.4 60 nr x 6 mm tinned Cu. braided tape Mtrs 100 11.6 50 x 6 mm tinned cpper eath busbar with insulators and busbar housing. Nos. 2 11.7 Installation of Earthing 10 10 10 11.8 LiGHTING & POWER WIRING 10 10 10 11.4 for any in une or the false celling with drops to the distripution boards and switch boxes receased in the walls/partitions. Points to be controlled in groups of 2-3 from the lightin	10	Cable Trays		
10.2 various sizes including straightening cutting, welding on existing structure, grouting, leveling etc. as required. Kgs 10.3 Installation of cable tray Lot 1 11 EARTHING Kgs Supply of Class B, 40 mm dia, 3.0 metre long earth pipe set (as per link. Nos. Supply of 600 X 600 X 3 mm copper Plate Type Earthing (as per IS: link. Nos. Supply of 600 X 600 X 3 mm copper Plate Type Earthing (as per IS: cast iron cover and test link. Mtrs 11.2 3043) with alternate layers of charcoal & salt, including heavy duty cast iron cover and test link. 4 11.3 25 mm x 3 mm funce Cu. braided tape Mtrs 100 11.4 50 mm x 3 mm tinned Cu. braided tape Nos. 2 11.5 20 mm x 3 num tinned Cu. braided tape Nos. 2 11.7 Installation of Earthing Nos 8 12 Mits Hidde and table compout the providing wiring to the following light points using 1.5 sq.mm. (3 / 0.80 mm J Dual core, 1100 volt grade, PVC insulated copper conductor wires drawn in heavy gauge PVC conduit pipes installed on the ceiling or run over the false ceiling with drops to the distribution boards and switch boxes recessed in the 18 12.1 walle/partitions. Doints to be controlled in groups or individually by means of 6 amps, single pole, flush type moduclar switches housed in flush mounted G. Loxex eate to include for 1.5 sq.mm green PVC insulted, single core, copper earth wire drawn in the cond	10.1		Mtrs.	200
10.3 Installation of cable tray Lot 1 111 EARTHING	10.2	various sizes including straightening cutting, welding on existing	Kgs	80
11 EARTHING Image: Supply of Class B, 40 mm dia, 3.0 metre long earth pipe set (as per list, nuts, and washers etc. including heavy duty cast iron cover and test link. Nos. 11.1 Is 3043) with back fill compound, bus for termination, SS bolts, nuts, and washers etc. including heavy duty cast iron cover and test link. Nos. 4 11.2 3043) with alternate layers of charcoal & salt, including heavy duty cast iron cover and test link. Nos. 4 11.3 25 mm x 3 mm Cu Strip Mtrs 100 11.4 50mm x 6 mm GI Strip Mtrs 300 11.5 20 mm x 3 mm tinned Cu. braided tape Mtrs 150 11.6 50 c 6 mm tinned copper eath busbar with insulators and busbar housing. Nos. 2 11.7 Installation of Earthing Nos 8 12 IJGHTING & POWER WIRNG Nos 8 13 11.00 volt grade, PVC insulated copper conductor wires drawn in heavy gauge PVC conduit pipes installed on the ceiling or run over the false ceiling with drops to the distribution boards and switch boxes recessed in the walls/partitions. Points to be controlled in groups of 2-3 from the lighting switch box 9 9 12.1 Points to be controlled in groups of 2-3 from the lighting switch box 5 1 1 12.2 Poi	10.3		Lot	1
Supply of Class B, 40 mm dia, 3.0 metre long earth pipe set (as per IS: 3043) with back fill compound, bus for termination, SS bolts, nuts, and washers etc. including heavy duty cast iron cover and test link. Nos. 4 Supply of 600 X 600 X 30 mm copper Plate Type Earthing (as per IS: 3043) with alternate layers of charcoal & salt, including heavy duty cast iron cover and test link. Mrs 100 11.3 25 mm X 3 mm Cu Strip Mrs 300 11.4 50mm X 6 mm Cl Strip Mrs 300 11.5 20 mm x 3 mm tinned Cu. braided tape Mrs 300 11.6 50x 6 mm tinned copper eath busbar with insulators and busbar housing. Nos. 2 11.7 Installation of Earthing Nos 8 10 11.7 Installation of Earthing Nos 8 12 IGHTING & POWER WIRING Voiding wiring to the following light points using 1.5 sq.mm. (3 / 0.80 mm) Dual core, 1100 volt grade, PVC insulated copper conductor wires drawn in heavy gauge PVC conduit pipes installed on the ceiling or run over the false ceiling with drops to the distribution boards and switch boxes recessed in the 12.1 Point to be controlled in groups of 2-3 from the lighting switch box so ne point. Point 15 12.2 Points to be controlled in groups of 2-3 from the lighting switch box so ne point. Poi				
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11.4 50mm x 6mm GI Strip Mits 300 11.5 20 mm x 3 mm tinned Cu. braided tape Mits 160 11.6 50 x 6 mm tinned copper eath busbar with insulators and busbar housing. Nos. 2 11.6 50 x 6 mm tinned copper eath busbar with insulators and busbar housing. Nos. 2 11.7 Installation of Earthing Nos 8 12 LIGHTING & POWER WIRING Nos 8 12 LIGHTING & POWER WIRING Nos 8 12 LIGHTING & POWER WIRING Nos 8 12.1 walls/partitions. Points to be controlled in groups or individually by means of 6 amps, single pole, flush type moduclar switches housed in flush mounted G.I. boxs. Rate to include for 1.5 sq.mm green PVC insulted, single core, copper earth wire drawn in the conduit pipe for earthing the light fittings & each light will be measured as one point. Point s 15 12.2 Points to be controlled in groups of 2-3 from the lighting switch box s Point 4 15 12.3 Points to be controlled individually from the lighting switch box complete with a 6 amps, 2-pole and earth switch socket-outlet housed in a flush mounted G.I. box recessed in walls/partitions 8 12.4 complete with a 6 amps, 2-pole and earth switch socket-outlet s 16 <	11.2	3043) with alternate layers of charcoal & salt, including heavy duty	Nos.	4
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11.6 50 x 6 mm tinned copper eath busbar with insulators and busbar housing. Nos. 2 11.7 Installation of Earthing Nos 8 12 LIGHTING & POWER WIRING Nos 8 12 IGHTING & POWER WIRING Nos 8 14 IGHTING & POWER WIRING Nos 8 12 IGHTING & POWER WIRING Nos 8 14 IGHTING & POWER WIRING Nos 8 15 0.30 mm) Dual core, 1100 volt grade, PVC conduit pipes installed on the ceiling or run over the false ceiling with drops to the distribution boards and switch boxes recessed in the Nos 8 12.1 walls/partitions. Points to be controlled in groups or individually by means of 6 amps, single pole, flush type moduclar switche housed in flush mounted G.I. boxes. Rate to include for 1.5 sq.mm green PVC insulted, single core, copper earth wire drawn in the conduit pipe for earthing the light fittings & each light will be measured as one point. Point 4 12.2 Points to be controlled individually from the lighting switch box complete with a 6 amps, 2-pole and earth switch socket-outlet housed in a flush mounted G.I. box recessed in walls/partitions 8 12.4 Providing wiring to 16 amps socket-outlets, using FRLS insulated copper conductor wires drawn in heavy gauge PVC con	11.5		Mtrs	150
Instant of DWER WIRING Instant of DWER WIRING 12 LIGHTING & POWER WIRING Image: Comparison of Decision of Decisi	11.6	50 x 6 mm tinned copper eath busbar with insulators and busbar	Nos.	2
Providing wiring to the following light points using 1.5 sq.mm. (3 / 0.80 mm) Dual core, 1100 volt grade, PVC insulated copper conductor wires drawn in heavy gauge PVC conduit pipes installed on the ceiling or run over the false ceiling with drops to the distribution boards and switch boxes recessed in the walls/partitions. Points to be controlled in groups or individually by means of 6 amps, single pole, flush type moduclar switches housed in flush mounted G.I. boxes. Rate to include for 1.5 sq.mm green PVC insulted, single core, copper earth wire drawn in the conduit pipe for earthing the light fittings & each light will be measured as one point.Point s1512.2Points to be controlled in groups of 2-3 from the lighting switch box s onvenience Socket-OutletsPoint s420.0venience Socket-OutletsPoint to be complete with a 6 amps, 3-pole and earth switch socket-outlet housed in a flush mounted G.I. box recessed in walls/partitionsPoint s812.5Providing flush mounted boxes but excluding any switch or socket- outletsPoint s2212.6Providing wiring to 16 amps socket-outlets, using FRLS insulated copper conductor wires drawn in heavy gauge PVC conduit pipe & each point to be complete with 1 No. 6A + 1 No. 16A flush mounting switch socket-outlets housed in a flush mounted G.I. box1113LIGHTING FIXTURES1114Recessed mounted square LED light fixturesNos215Installation of the aboveLot11611117Installation of the above light fixturesNos2181111 <t< td=""><td>11.7</td><td>Installation of Earthing</td><td>Nos</td><td>8</td></t<>	11.7	Installation of Earthing	Nos	8
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14Temporary lighting at site with all necessary fittings and powerLot1sockets.	13.4	-	Nos	24
sockets.	13.5		Lot	1
15 Rubber Mats Lot 1	14			

16	Exhaust Fan	Nos	2
17	Shock treatment Chart	No	1
С	UPS SYSTEM (Main)		
1	100 KVA Modular type UPS with Battery circuit breaker and communication card with 5 years warranty battery rack IRIT UPS to battery cable.	Nos	2
2	Battery 200AH,34nos for 30min backup @100% load load PF 0.8 along with battery rack and cable connectors.	Nos	2
3	Installation & commissioning of the above.	Sets	2
D	PRECISION PACKAGED COOLING UNITS (PAC)		
1	Precision AC, 7 TR nominal capacity, downflow type with auto sequencing, vibration absorber, dual set point temperature, etc.	Nos	1
2	Labor charges Laying of Installation Material, installation of machine with ICOM, Nitrogen Pressure testing, Vaccumissing, Gas Charging & commissioning of Precision AC units	Nos	1
3	Loading & Unloading of PAC	Nos	1
4	Low-side works		
4.1	Refrigerant Copper Pipe -Gas Line	RMT	10
4.2	Refrigerant Copper Pipe -Liquid Line	RMT	10
4.3	Hot gas Pipe insulation	RMT	5
4.4	Liquid Pipe insulation	RMT	5
4.5	Drain Pipe line 40 mm	RMT	10
4.6	Humidifier pipe line 25 mm	RMT	10
4.7	Indoor unit stand	Nos.	1
4.8	Cable Tray 2"	RMT	10
4.9	Refrigerant R-410A	Kg	15
4.1	Control cable between Outdoor & Indoor	RMT	10
E	ROOM AIR CONDITIONING		
1	Wall Mount, Split AC, 2.0 Tr, 5 Star	Nos	5
4	Installation & commissioning of above	Nos	5
F	ADDRESABLE FIRE DETECTION & ALARM		
1	Fire alarm Control panel	No	1
2	Intelligent Addressable Multi-sensor Smoke detector	Nos	26
3	Intelligent Addressable Heat detector	Nos	2
4	Response indicator with LED.	Nos	12
5	Intelligent Addressable Relay control module	Nos	12
6	Intelligent Addressable Monitor module for VESDA	Nos	2
7	Short circuit Isolator	Nos	2
8	Intelligent Addressable Type Manual Call Point	Nos	3
9	Conventional Type Hooter with Strobe	Nos	3
10	2 core x 1.5 sq.mm Armoured FRLS cable	RMT	400
11	Installation of above	Lot	1
G	VERY EARLY SMOKE DETECTION & ALARM		
1	Single channel Aspirating Detector	Nos.	2
2	Power Supply with Battery backup Unit	Nos.	2
3	Air termination Nozzles with Capillary set	Nos	15
4	Aspiration 25mm OD CPVC Sampling Pipes with accessories	Mts.	80
5	Electronic Hooter with mounting arrangement	No	2
6	Installation of above	Lot	1
н	FIRE SUPPRESSION SYSTEM -SERVER RM-1		

1	CCOE Approved Seamless NOVEC1230 Cylinder and Valve Assembly, 80 Ltrs. capacity, OEM Factory filled with Novec 1230 Suppression Liquid , pressurised to 42 bar .	Nos	2
2	Master Completer Kit complete with Solenoid, Pneumatic actuators, Pressure Gauge, Low pressure supervisory switch, Discharge hoses, Flexible actuation hoses and connectors.	Set	1
3	Slave Completer Kit complete with pneumatic actuators, Pressure Gauge, Low pressure supervisory switch, Discharge hoses, Flexible actuation hoses, manual actuator and connectors	Set	1
4	NOVEC1230 Fire Protection Fluid, OEM Factory Filled	Kgs	160
5	Nozzles, 360 Deg / 180 Deg Throw.	Nos	2
6	Manifold to cater cylinder bank	Nos	1
7	MS Powder coated cylinder brackets / U clamps	Nos	4
8	NOVEC Piping & Manifold as required, Sch 40; ASTM A106 Gr B	Lot	2
9	Single zone Gas Release Panel with Power supply unit, battery charger & batteries	Nos	1
10	Manual Release Switch	No	1
11	Abort Switch	No	1
12	Installation of above	No	1
I	PORTABLE FIRE EXTINGUISHERS - OTHER AREA		
1	Portable FIRE EXTINGUISHERS	Nos	6
2	Installation of above	Nos	6
J	ACCESS CONTROL SYSTEM		
1	Microprocessor based Control Panel with accessories	Set	1
2	Smart card Readers	Nos.	4
3	Biometric Finger Print cum Smart Card Reader.	Nos.	1
4	Smart Cards, 13.56 MHz, Contactless Smartcards, blank faced	Nos.	30
5	Electromagnetic Locks (600 lbs) for single leaf doors with magnetic contact	Nos.	3
6	Electromagnetic Locks for Double Doors (2x600 Ibs) with magnetic contact	Nos.	2
7	Emergency Door Release (Break Glass Type).	Nos.	2
8	Access Management Software license complete with Graphic User Interlace with transactions and anti-passback features.	No	1
9	8 core, 1.0 sq.mm copper conductor cable.	Mts.	300
10	2 Core 1.5 sq. mm. copper conductor cable	Mts.	300
11	25mm PVC conduit	Mts.	100
12	Installation of above	Lot	1
К	IP CCTV SURVELLIANCE SYSTEM		
1	5MP IR Turret Camera (2.8mm Lens with aperture of F1.6 (By Default) / F2.0 (On Demand), 1/2.8" Sony - CMOS, 0Lux with IR LED ON, FOV - 107 deg, IR Range - Upto 30 meters, Video Analytics, Motion Detection, Tamper Detection, Intrusion Detection, Tripwire, H.265/ H.264/MJPEG Video Compression, Quad Stream Support, True WDR, 3D Noise Reduction, Adaptive Streaming, Smart Streaming and ROI, SNR > 70dB. Certifications: BIS, CE, FCC, RoHS, IP67	Nos.	10
2	32-channel Network Video Recorder with 02 x 10 TB storage	No	1
3	Desktop display unit, 32 inch with HD resolution and mounting accessories.	No	1
4	Cat 6A cable with conduit	Mtrs.	600
5	24 port 10/100TX PoE switch with 2 SFP combo ports	No	1
6	Patch chord and connectors	Nos	10
7	Installation of above	Lot	1
L	WATER LEAK DETECTION SYSTEM		

1	Water Leak detection Panel with LCD display.	Nos.	1
2	Water leak detection cable	Mtrs	40
3	Sounder	Nos.	2
4	2 core 1.5 sq.mm PVC Insulated copper conductor Cable	Mtr	100
5	25mm PVC Conduit	Mtr	100
6	Installation of above	Lot	1
M	RODENT REPELLENT SYSTEM		
1	Ultra sound based master control unit	Nos.	1
2	Satellite Units complete as per the specification	Nos.	12
3	Connecting Cables	RMT	200
4	Bracket Stand	No.	1
5	25mm PVC Conduit	Mtrs	50
6	Installation of above	Lot	1
N	RACK CONTAINMENT / FLOOR GRILLS	TOL	-
1	Rack Containment	Tet	1
2	Installation of above	Lot	
2 3	Floor Grills	Lot	1
-		Nos	14
0	LOCAL AREA NETWORKING Network cabling considered for 12 Racks in Server Farm-1 (02 -		
	Network Racks, 01 Storage Rack, 09- Server Rack) and 01 Telco Rack		
	Assumed Cabling scheme: • Network Rack 1 to each Server Rack: 12F MPO OM4 trunk + 12		
	CAT6A Copper ports • Network Rack 2 to each Server Rack: 12F MPO OM4 trunk + 12		
	CAT6A Copper ports • Network Rack 1 to Network Rack 2 – 2x12F MPO OM4 trunk + 24 CAT6A Copper		
	 Storage Rack to each Server Rack – 12F MPO OM4 trunk Network Rack 1 to Telco – 12F MPO OM4 Trunk 		
1	Network Rack 2 to Telco – 12F MPO OM4 Trunk		
	OM4 Fiber MPO Cabling Components		- 10
1.1	Low Loss Multimode OM4 MPO-12 Module, 2x12F MPO rear to 24F LC Aqua, Method B Enhanced, UL listed, intelligent upgradable	Nos.	40
1.2	1U sliding fiber panel, accepts (4) MPO modules providing up to 48 duplex LC ports, with rear cable management, UL listed	Nos.	21
1.3	Low Loss OM4 MPO12/UPC to MPO12/UPC, Fiber Trunk Cable Assembly, 12-Fiber, LSZH CPR Dca rated, Bend Insensitive, 10m	Nos.	9
1.4	Low Loss OM4 MPO12/UPC to MPO12/UPC, Fiber Trunk Cable Assembly, 12-Fiber, LSZH CPR Dca rated, Bend Insensitive, 12m	Nos.	21
1.5	Low Loss OM4 MPO12/UPC to MPO12/UPC, Fiber Trunk Cable Assembly, 12-Fiber, LSZH CPR Dca rated, Bend Insensitive, 15m	Nos.	6
1.6	Low Loss OM4 MPO12/UPC to MPO12/UPC, Fiber Trunk Cable Assembly, 12-Fiber, LSZH CPR Dca rated, Bend Insensitive, 25m	Nos.	4
1.7	LC/UPC to LC/UPC Duplex Uniboot patch cord, Bend Insensitive, 2 mm LSZH, aqua jacket, 3 m LC/UPC to LC/UPC Duplex Uniboot patch cord, Bend Insensitive, 2	Nos.	432
2	mm LSZH, aqua jacket, 5 m CAT6A Copper UTP Cabling Components	Nos.	14
		Perso	0
2.1	Category 6A U/UTP 23 AWG Cable, LSZH jacket with CPR Dca rating, 4 pair with cross filler, 305 m Box Category 6A U/UTP Patch Panel, 24 port, 1U, loaded, with rear	Boxes Nos.	8
2.2	cable management, intelligent ready CAT6A U/UTP Solid Cordage Modular Patch Cord, LSZH Jacket, 2		
	I CATOA U/UTP SOIIQ COIQAGE MOQUIAI PAICH COIQ, LSZH JACKEL, Z	Nos.	126

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2.4	CAT6A U/UTP Solid Cordage Modular Patch Cord, LSZH Jacket, 3 Mtr	Nos.	70
2.5	CAT6A U/UTP Solid Cordage Modular Patch Cord, LSZH Jacket, 10 Mtr	Nos.	13
2.6	CAT6A U/UTP Solid Cordage Modular Patch Cord, LSZH Jacket, 15 Mtr	Nos.	16
2.7	GigaSPEED® X10D MGS600 Series Information Outlet, yellow	Nos.	180
2.8	1 Port Faceplate Kit, BS Shuttered, White	Nos.	24
2.9	CAT6A U/UTP Solid Cordage Modular Patch Cord, LSZH Jacket, 1 Mtr	Nos.	36
3	Wire Mesh Cable Tray		
3.1	Wire Mesh Cable Tray along with all fittings & fixtures.	Mtrs	120
4	Installation Services	Lot	1
Ρ	IT RACKS		
1	Floor Standing Server Rack - 42U, 600 x 1200 mm with dual PDU	Nos	5
2	Floor Standing Network Rack - 42U, 800 x 1200 mm with dual PDU	Nos	1
3	Installation Services	Lot	6
Q	BUILDING MANAGEMENT SYSTEM (BMS)		
1	Control Workstation with Core i5 Processor, Min 16 GB RAM, 1 TB HDD, 100 / 1000 Mbps NIC for network connection, complete with OS and 21" LCD display.	No	1
2	Building Management & Control Software with integration points as per site requirement and specifications.	Set	1
3	Third Party Integration: The Protocol Integrator/ Convertor shall be Capable to Integrate Open protocol systems on BACnet /Modbus/LONWORKS/M-Bus/J-Bus Protocol Made available on IP, or on serial RS 485 / 232 interface.(Separate Integrator for each system)		
4	Integrator for PAC on MODBUS RTU PROTOCOL.	Set	1
5	Integrator for UPS on MODBUS RTU PROTOCOL.	Set	1
6	Integrator for DG on MODBUS RTU PROTOCOL.	Set	1
7	Integrator for Power Feeders on MODBUS RTU PROTOCOL.	Set	1
8	Integrator for Intelligent Fire Alarm System	Set	1
9	Integrator for Access Control System	Set	1
10	Integrator for Water Leak Detection System	Set	1
11	Networkable 32 Bit DDC Controllers, inbuilt real time clock, Battery backup. The controllers shall be capable of standalone operation with real time clock and historical database. The DDC's shall be capable of peer to peer communication without help of system interface controller or PC. The DDCs shall be with suitable IP 54 enclosure complete with all wiring and accessories.		
12	DDC for Server Room T&RH, Breakers , ELV system	Set	1
13	Temperature and RH sensor for server room	Nos.	6
14	Cabling for instrument, controls, valves to DDCs and communication cabling from DDC to central equipment complete with earthing, supports etc complete. All Cables shall be ferruled and tagged, and shall use lugs for termination at both ends.		
15	2 Core x 1 sq mm FRLS Al-Mylar Screened with drain wire, Armored Cable for control cabling	Mtrs	600
16	4 Core x 1 sq mm FRLS Al-Mylar Screened with drain wire, Armored Cable for control cabling	Mtrs	200
17	Communication cable: FRLS Armored CAT6 Cable	Mtrs	600
18	Signal Cabling (Flexible Copper conductor cable)	Mtrs	600
19	25mm PVC conduit	Mtrs	400
20	32 inch LED Display	No	1
21	Installation of above	Lot	1

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R	DESKTOP / WORKSTATIONS		
1	NOC Workstation with Core i3 Processor, 8 CB RAM, 1 TB HDD, 100 / 1000 Mbps NIC for network connection, complete with OS and 21" LCD display.	Nos	2
2	Installation of above	Nos	2
S	ADDITIONAL WARRANTY / CAMC		
1	Additional warranty / CAMC for four (04) years, post first (01) year warranty.	Yrs	4

NOTE : THE ABOVE BILL OF MATERIAL HAS TO BE CONSIDERED FOR THE PRICE BID.

WARRANTY MAINTENANCE & SLA

The selected system integrator (SI) must arrange for onsite comprehensive warranty / maintenance support for a total of five (05) years from the date of Go-Live of the project.

Following SLAs must be adhered to:

- Calls must be attended within Three (03) hours of logging of complaint / reporting.
- Call resolution within 24 hours of logging of complaint / reporting.
- Penalty shall be applicable after the expiry of 24 Hr window.

Penalty details

- > Resolution of complaint within turnaround time- no penalty.
- Resolution of complaint for beyond target turnaround time for support:
- > Rs. 1000/- per day after the allowed turnaround time
- The total amount of penalty for a quarter/six month period shall not exceed 5% of the billable amount for the period (Quarter/6 Months).
- Any fraction of the day on which the repair/replacement is completed, shall be counted as 1 day.
- The PBG (Performance Bank Guarantee) may be forfeited if the penalty amount for any Quarter/6 month period is higher than 5% of the bill amount for the period (quarter/6 months)
- > The SLA for service support in compliance to the minimum SLA required must be submitted by the L1 bidder on placement of order. WTL reserves the right to change/modify the SLAs during the finalization of the contractual agreement with the successful bidder.
- The maximum penalty shall not exceed 10% of the value of the equipment supplied under any circumstances.
- Annual uptime 99.5%.
- The selected system integrator (SI) shall record all service calls and provide necessary support. WTL shall coordinate with the system integrator personnel for

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escalation of issues to ensure speedy resolution.

• A SLA shall have to be signed between WTL and SI ensuring 24 X 7 service to maintain 99.5% annual uptime of the systems.

Delay in project completion :

In case of delay in completion of project within the time frame mentioned in the tender document, penalty may be imposed subject to consideration of competent authority of Kolkata Police / WTL as follows –

- a) Delay beyond 15 days penalty @ 2% of the total project cost (excluding GST)
- b) Delay beyond 30 days penalty @ 3% of the total project cost (excluding GST)
- c) Delay beyond 45 days penalty @ 5% of the total project cost (excluding GST)
- d) Delay beyond 60 days penalty @ 10% of the total project cost (excluding GST)

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<u>SECTION – C</u>

ELIGIBILITY CRTERIA

Sn	Qualification Criteria	Document to support	Bidder's
, Sh		qualification criteria	Response (Complied /Not Complied)
1	The bidder must be a must be a company registered under Companies Act, 1956/2013 / Proprietorship / Partnership/ Private Limited.	Certificate of Incorporation	
2	The bidder should have permanent office in Kolkata.	Self-declaration on company letterhead & trade license.	
3	Bidder should have a support / service center in Kolkata.	Self-declaration with support center number.	
4	The bidder should have an average annual turnover of at least Rs. Eight (08) Crores during last three financial years, FY 2022-21, FY 2021-20 & FY 2020-19.	Certificate from Chartered Accountant.	
5	The bidder shall have at least one order of "Similar Nature" for an amount not less than Rs. 2 Crores in last 03 (Three) financial years in Government Department / PSU / Autonomous Body/ BFSI / Large Corporates. Financial years to be considering FY 2022-21, FY 2021- 20 & FY 2020-19 "Similar Nature" would mean supply, installation, testing, commissioning of any of the datacenter infrastructure (IT and or Non-IT components).	Documentary evidence with relevant order copies should be enclosed.	
6	The bidder should be ISO 9001 & 27001 certified organization.	Valid ISO certificate.	
7	The bidder should have valid GST Registration & PAN.	Copy of GST registration certificate & PAN.	
8	The bidder should not be blacklisted or debarred from bidding by any government body.	Self-declaration on company letterhead.	
9	The bidder should have a positive net worth. FY 2022- 21, FY 2021-20 & FY 2020-19	Solvency certificate or Certificate from CA.	
10	Manufacturer's Authorization	Manufacture's / OEM authorization to be submitted for the following, as per format: • Fire Detection & Alarm • Access Control System • PAC • CAC • UPS • CCTV Surveillance • Passive Networking • BMS • VESDA • RACK OEM • PC OEM	
11	The bidder shall submit Bid Form duly signed as per the format enclosed. Deviation in format may not be accepted.	Bid form.	
12	The bidder shall submit NIT Declaration (Section – P) duly signed by the authorized signatory of the company as per format. Deviation in format may not be accepted.	NIT Declaration	

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<u>SECTION – D</u>

INSTRUCTION TO BIDDER

1. DEFINITIONS

In this document, the following terms shall have following respective meanings:

"**Agreement**" means the Agreement to be signed between the successful bidder and WTL including all attachments, appendices, all documents incorporated by reference thereto together with any subsequent modifications, the Enquiry, the bid offer, the acceptance and all related correspondences, clarifications, presentations.

"Acceptance Test Document" means a document, which defines procedures for testing the functioning of installed system. The document will be finalized with the contractor within 7 days of issuance of the Letter of Award.

"**Bidder**" means any firm offering the solution(s), service(s) and /or materials required in the RFP. The word Bidder when used in the pre-award period shall be synonymous with Bidder, and when used after award of the Contract shall mean the successful Bidder.

"Contract" is used synonymously with Agreement.

"**Contract Price**" means the price to be paid to the Contractor for providing the Solution, in accordance with the payment terms.

"**Contractor**" means the Bidder whose bid to perform the Contract has been accepted by Tender Committee and is named as such in the Letter of Award.

"Default Notice" mean the written notice of Default of the Agreement issued by one Party to the other.

"Installation" means installation of supplied Hardware & Software.

"**Fraudulent Practice**" means a misrepresentation of facts in order to influence a procurement process or the execution of a Contract and includes collusive practice among Bidders (prior to or after Bid submission) designed to establish Bid prices at artificial noncompetitive levels and to deprive WTL and eventually Departments of Gov. of W. Bengal of the benefits of free and open competition.

"GoWB" means Government of West Bengal.

"KP" means Kolkata Police

"WTL" means Webel Technology Limited

"Similar Nature" would mean supply, installation, testing, commissioning of any of the datacenter infrastructure (IT and or Non-IT components).

"Project" Supply, Installation, Testing, Commissioning (SITC) with Five Years Warranty, of Physical Infrastructure of a datacenter at Police Training School, Kolkata Police.

"**RFT**" means Running Feet.

"**RMT**" means Running Meter

"Services" means the work to be performed by the Bidder pursuant to this Contract, as described in the detailed Scope of Work.

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"**Law**" shall mean any Act, notification, bye law, rules and regulations, directive, ordinance, order or instruction having the force of law enacted or issued by the Central Government and/or the Government of West Bengal or any other Government or regulatory authority or political subdivision of government agency.

"LOI" means issuing of Letter of Intent shall constitute the intention of the WTL to place the Purchase Order with the successful bidder.

"**Requirements**" shall mean and include schedules, details, description, statement of technical data, performance characteristics, standards (Indian as well as International) as applicable and specified in the Contract.

"Service" means provision of Contracted service viz., operation, maintenance and associated services for deployed systems as per Section titled "Scope of Work".

"Termination Notice" means the written notice of termination of the Agreement issued by WTL.

"**Uptime**" means the time period when specified services are available with specified technical and service standards as mentioned in section titled WARRANTY SUPPORT" **%Uptime**" means ratio of 'up time' (in minutes) as mentioned in section titled "Warranty support".

"Service Down Time" (SDT) means the time period when specified services with specified technical and operational requirements as mentioned in section titled "WARRANTY SUPPORT"" are not available to Gov. of W. Bengal and its user departments and organizations.

2. PRE BID MEETING

Pre Bid Meeting will be held on 22.06.2023 at 12.00 Hrs. (**On-Line Meeting**). Bidder can send their queries as per format (Section – R) to Purchase Department (purchase@wtl.co.in). Only the queries received within the stipulated date prior to the Pre Bid Meeting will be answered. Interest bidders are requested to send mail to (purchase@wtl.co.in) for participation of online pre-bid meeting Based on request WTL will share meeting id / links for meeting. If there is any change in date and time then will inform.

3. BID DOCUMENT

Bidder is expected to examine all instructions, forms, terms and requirement in the bid document. The invitation to bid together with all its attachment thereto shall be considered to be read, understood and accepted by the bidder unless deviations are specifically stated in the seriatim by the bidder. Failure to furnish all information required by the bid document or a bid not substantially responsive to the bid document in every respect may result of the bid.

4. AMENDMENT OF BID DOCUMENT

At any time prior to the deadline for submission of proposals, WTL reserves the right to add/modify/delete any portion of this document by issuance of a Corrigendum, which would be published on the website and will also be made available to the all the Bidder who have been issued the tender document. The Corrigendum shall be binding on all bidders and will form part of the bid documents.

5. MODIFICATION AND WITHDRAWAL OF BIDS

The bidder cannot modify or withdraw its bid after submission.

6. LANGUAGE OF BID & CORRESPONDENCE

The proposal will be prepared by the Bidder in English language only. All the documents relating to the proposal (including brochures) supplied by the firm should also be in English, and the correspondence between the Bidder & WTL will be in English language only. The correspondence by fax/E-mail must be subsequently confirmed by a duly signed formal copy.

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7. BIDDER'S SOLUTION

The bidders are requested to study the Bill of Material supplied with this document carefully. While working out the solution the bidder has to work with the broad minimum specification provided in the tender documents, conforming to the model, make and Part number (wherever provided). While submitting the bid the bidder has to detail out all components needed to complete the system BOM. The bidder is required quote for each item as per bill of material, retaining all major components/sub system detailed and specified. As the contractor will be responsible for smooth functioning of the system, availability of spares during the tenure of the warranty period have to be take care by the contractor to maintain the guaranteed uptime.

8. EARNEST MONEY DEPOSIT (EMD) & TENDER FEE

The bidder shall furnish Online Receipt against payment of Tender Fees and Earnest Money Deposit. No MSME exemption.

9. **REFUND OF EMD**

EMD will be refunded to the unsuccessful bidders without interest by following guidelines of circular 3975-F(Y) dated 28/07/2016 on final selection of Successful Bidders.

10. FORMS AND FORMATS

The various inputs for the Techno Commercial as Financial Bids are to be submitted in the format specified. The bidder shall use the form, wherever specified, to provide relevant information. If form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the said information. For all other cases, the bidder shall design a form to hold the required information.

11. LACK OF INFORMATION TO BIDDER

The bidder shall be deemed to have carefully examined the Bid document to his entire satisfaction. Any lack of information shall not relieve the bidder of his responsibility to fulfill his obligation under the bid. If bidder has any queries relating to bid document, then he can send the queries before the Pre Bid Meeting.

12. TIME SCHEDULE FOR DELIVERY & INSTALLATION

Four (04) months from the date of receipt of PO.

13. LOCATION FOR DELIVERY & INSTALLATION

Police Training School- Kolkata Police.

14. LIABILITY

In case of a default on bidder's part or other liability, WTL shall be entitled to recover damages from the Contractor. In each such instance, regardless of the basis on which WTL is entitled to claim damages from the Contractor (including fundamental breach, negligence, misrepresentation, or other contract or tort claim), Contractor shall be liable for no more than:

- Payment referred to in the Patents and Copyrights clause.
- Liability for bodily injury (including death) or damage to real property and tangible personal property limited to that cause by the Contractor's negligence.
- As to any other actual damage arising in any situation involving non-performance by Contractor pursuant to or in any way related to the subject of this Agreement, the charge paid by WTL for the individual product or Service that is the subject of the Claim. However, the contractor shall not be liable for
- For any indirect, consequential loss or damage, lost profits, third party loss or damage to property or loss of or damage to data.
- For any direct loss or damage that exceeds the total payment for Contract Price made or expected to be made to the Contractor hereunder.

15. SUSPENSION OF WORK

WTL shall have the power at any time and from time to time by notice to the Contractor to delay or suspend the progress of the work or any part of the work due to any other adequate reasons and on

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receipt of such notice the contractor shall forthwith suspend further progress of the work until further notice from WTL. The Contractor shall recommence work immediately after receiving a notice to do so from WTL. The whole or any part of the time lost for such delay or suspension shall, if WTL in its absolute discretion thinks fit, but not otherwise, be added to the time allowed for completion.

16. TERMS OF PAYMENT

Payment terms will be on back to back basis i.e., payment will be made only on receiver of payment from relevant customer i.e., Kolkata Police. Payment terms of project shall be as depicted below:

- **40% of the total contract value** on completion of delivery of all active and passive components, as per the BOM.
- **40% of the total contract value** on completion of installation of all active and passive components, as per the BOM.
- 20% of the total contract value on Go-Live of the project.

Contract Performance Guarantee (CPG) @ 10% of the total project cost for entire warranty period of 05 years to be submitted within 10 working days after issue of work order.

17. PENALTY

In case of delay in completion of the project within the time frame mentioned in the tender document, penalty may be imposed subject to consideration of competent authority of Kolkata Police as follows.

- a) Delay beyond 15 days penalty @ 2% of the total project cost (excluding GST).
- b) Delay beyond 30 days penalty @ 3% of the total project cost (excluding GST).
- c) Delay beyond 45 days penalty @ 5% of the total project cost (excluding GST).
- d) Delay beyond 60 days penalty @ 10% of the total project cost (excluding GST).

18. GOVERNING LAWS

This contract should be governed by and interpreted by Arbitration clause in accordance with Laws in force in India. The courts at Kolkata shall have exclusive jurisdiction in all matters arising under the contract. The selected vendor shall keep himself fully informed of all current national, state and municipal law and ordinances. The selected vendor shall at their own expense, obtain all necessary permits and license and pay all fees and taxes required by law. These will be selected vendor's entire obligation regarding any claim of infringement. The selected vendor hereto agrees that it shall comply with all applicable union, state and local laws, ordinances, regulations and codes in performing its obligations hereunder, including the procurement of licenses, permits certificates and payment of taxes where required. The selected vendor shall establish and maintain all proper records (particularly, but without limitation, accounting records) required by any law, code/practice of corporate policy applicable to it from time to time including records and returns as applicable under labor legislation.

19. CORRUPT OR FRAUDULENT

The Tender Committee requires that the bidders under this Tender observe the highest standards of ethics during the procurement and execution of such contracts. For this purpose, the definition of corrupt and fraudulent practices will follow the provisions of the relevant laws in force. The Tender Committee will reject a proposal for award if it detects that the bidder has engaged in corrupt or fraudulent practices in competing for the contract in question. The Tender Committee will declare a firm ineligible, either indefinitely or for a stated period of time, if it at any time determines that the firm has engaged in corrupt and fraudulent practices in competing for, or in executing, a contract.

20. BINDING CLAUSE

All decisions taken by the Tender Committee regarding the processing of this tender and award of contract shall be final and binding on all parties concerned. The Tender Committee reserves the right:

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- To vary, modify, revise, amend or change any of the terms and conditions mentioned above and,
- To reject any or all the Tender/s without assigning any reason whatsoever thereof or to annul the bidding process and reject all bids at any time prior to award of contract, without thereby incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the grounds for such decision.

21. WORKMEN'S COMPENSATION

In every case in which by virtue of the provision of the workmen's compensation Act 1923 or any other relevant acts and rules, compensation to a workman employed by the contractor, is payable, then this should be done by the Contractor. If WTL is obliged to make any compensation under the said rules and acts, then the amount shall be recovered without prejudice, from the bills and due of the Contractor. WTL shall not be bound to contest any claim made against the Contractor in respect of workmen's compensation.

22. CONTRACTOR'S EMPLOYEES

The Contractor shall comply with the provision of all labor legislation including the requirement of the payment of Wage Act 1936 and the rules framed there under and modifications thereof in respect of men employed by him in carrying out the contract. The Contractor must ensure that he complies with PF, ESI regulation for all his deployed employees. The Contractor shall see that all authorized Sub Contractors under him similarly complied with the above requirement.

23. SAFETY MEASURES

The Contractor shall in the course of execution of the work take all necessary precaution for the protection of all persons and property. The Contractor shall take adequate measures to protect the work and present accident during the work. In the event of any accident to any person or persons or damage or injury of any description to any person or property due to failure on the part of the contractor in taking proper precautionary measures the contractor shall be responsible for and must make good the loss the damage at his own cost to the satisfaction of the department and employees of the department shall be indemnified from all claims or liabilities arising there from or any expenses incurred on account thereof.

24. EQUIPMENT

All tools & tackles necessary for the work shall have to be procured by the contractor unless otherwise specified elsewhere in these tender documents. The equipment used by the contractor for a particular work must be appropriate for the type of work. The contractor shall maintain the equipment used on the work properly so that they are in good working condition. In no case shall the contractor use defective or imperfect equipment in the work. The contractor shall arrange to replace or repair all defective equipment so that the progress of the work is not hampered. No defective equipment should be left at the site of work and the department shall not be responsible for any loss or damage to any of this equipment during the course of the execution of the work.

25. JOINT VENTURE /CONSORTIUM

The purchaser (WTL) does not recognize the Joint Venture / Consortium partner. The Contractor's responsibility is not transferable.

26. TERMINATION FOR DEFAULT

WTL may without prejudice to any other remedy or right of claim for breach of contract by giving not less than 30 days written notice of default sent to the contractor, terminate the order in whole or in part. If the contractor materially fails to render any or all the services within the time period specified in the contract or any extension thereof granted by WTL in writing and fails to remedy its failure within a period of thirty days after receipt of default notice from WTL. If the project (delivery, commissioning as well as warranty maintenance support is not carried out according to specification due to deficiency in service as per terms of the contract. In such case WTL will invoke the amount held back from the contractor as Security deposit.

27. BANKRUPTCY

WTL/KP/DC/23-24/012 dated 14/06/2023

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If the contractor becomes bankrupt or have a receiving order made against him or compound with his creditors or being a corporation commence to be wound up, not being a voluntary winding up for the purpose only or amalgamation or reconstruction, or carry on their business under a receiver for the benefit of their creditors or any of them, WTL shall be at liberty to terminate the engagement forthwith without any notice in writing to the contractor or to the liquidator or receiver or to any person in whom the contractor may become vested and without any compensation to give such liquidator or receiver or other person the option of carrying out the engagement subject to their providing a guarantee for the due and faithful performance of the engagement up to an amount to be determined by WTL.

28. FORCE MAJEURE

It is hereby defined as any cause, which is beyond the control of the Contractor or WTL as the case may be, which such party could not foresee or with a reasonable amount of diligence could not have foreseen and which substantially affect the performance of the contract, such as

- War, Hostilities or warlike operations (whether a state of war be declared or not), invasion, act of foreign enemy and civil war.
- Rebellion, revolution, insurrection, mutiny, usurpation of civil or military, government, conspiracy, riot, civil commotion and terrorist area.
- Confiscation, nationalization, mobilization, commandeering or requisition by or under the order of any government or de facto authority or ruler, or any other act or failure to act of any local state or national government authority.
- Strike, sabotage, lockout, embargo, import restriction, port congestion, lack of usual means of
 public transportation and communication, industrial dispute, shipwreck, shortage of power
 supply epidemics, quarantine and plague.
- Earthquake, landslide, volcanic activity, fire flood or inundation, tidal wave, typhoon or cyclone, hurricane, nuclear and pressure waves or other natural or physical disaster through car accident.

If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances of the event of Force Majeure within fourteen days after the occurrence of such event. The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed.

The party or parties affected by the event of Force Majeure shall use reasonable efforts to mitigate the effect of the event of Force Majeure upto its or their performance of the Contract and to fulfill its or their obligation under the Contract but without prejudice to either party's right to terminate the Contract.

No delay or nonperformance by either party to this Contract caused by the occurrence of any event of Force Majeure shall.

- Constitute a default or breach of the contract.
- Give rise to any claim from damages or additional cost or expense occurred by the delay or nonperformance. If, and to the extent, that such delay or nonperformance is caused by the occurrence of an event of Force Majeure.

29. WARRANTY & MAINTENANCE

- Contractor will have to provide comprehensive warranty on all components including software for a period of five years from the date of completion of installation & commissioning (Go-Live date).
- The Contractor is liable for repairing all or any sort of damage detected during the warranty period completed free of cost.
- During the warranty period no active component should be declared "End of Life". In case it is declared "End of Life" during this period, the vendor has to replace such equipment at their own cost. A letter of Confirmation by OEM shall be mandatory. The rate should be quoted inclusive of warranty. End of Life of each supplied components should support minimum 10 years.

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• Separate SLA will be signed with the vendor for warranty & support after supply of the equipment's.

30. PERIOD OF VALIDITY OF OFFER

For the purpose of placing the order, the proposals shall remain valid till 120 days. During the period of validity of proposals, the rates quoted shall not change. In exceptional circumstances, WTL may ask for extension of the period of validity. WTL's request and the response to such a request by various Bidders shall be in writing.

31. TAXES & DUTIES

- The prices shall be inclusive of all taxes & levies including GST and other statutory duties as applicable. Rate of taxes should be indicated separately in the Price Bid.
- Contract Price specified in Price Bid should be based on the taxes & duties and charges prevailing at the date one day prior to the last date of Bid submission.
- Statutory deduction, wherever applicable, shall be made from invoice as per government rules. Necessary certificate will be issued for such deductions.
- Bidder submitting a bid shall produce valid statutory documents / certificates with respect to GST, Income Tax, ROC, Prof. Tax, Trade License, etc. All such documents / certificates shall remain valid on the last date of tender submission.
- In case of inter-state transaction, WTL will provide "Waybill". However, statutory charges, if any will be borne by the bidder.
- GST component of the invoice of the bidder may be kept on hold in case there ia any mismatch / irregularity in GST return filling on the part of the bidder.

32. DISCREPANCIES IN BID

- Discrepancy between description in words and figures, the rate which corresponds to the words quoted by the bidder shall be taken as correct.
- Discrepancy in the amount quoted by the bidder due to calculation mistake of the unit rate then the unit rate shall be regarded as firm.
- Discrepancy in totaling or carry forward in the amount quoted by the bidder shall be corrected.

33. BID DUE DATE

The tender has to submitted not later than the due date and time specified in the Important Dates Sheet. WTL may as its discretion on giving reasonable notice by email, or any other written communication to all prospective bidders who have been issued the bid documents, extend the bid due date, in which case all rights and obligations of the WTL and the bidders, previously subject to the bid due date, shall thereafter be subject to the new bid due date as extended.

34. LATE BID

Any proposal received by WTL after the deadline for submission of proposals may not be accepted.

35. OPENING OF BID BY WTL

Bids shall be opened at WTL in presence of Tender Committee. Bidders interested to remain present during bid opening may attend the bid opening session at WTL premises at scheduled date & time.

36. CONTACTING WTL

Bidder shall not approach WTL officers beyond office hours and/or outside WTL office premises from the time of the Bid opening to the time of finalization of successful bidder. Any effort by bidder to influence WTL office in the decision on Bid evaluation, bid comparison or finalization may result in rejection of the Bidder's offer. If the bidder wishes to bring additional information to the notice of WTL, must be in writing following the procedure mentioned hereinabove.

37. WTL'S RIGHT TO REJECT ANY OR ALL BIDS

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WTL reserves the right to reject any bid and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected bidder(s) or any obligation to inform the affected bidder(s) of the grounds for such decision.

38. BID CURRENCIES

Prices shall be quoted in Indian Rupees, inclusive of all prevailing taxes, levies, duties, cess etc.

39. **PRICE**

- Price should be quoted in the BOQ format only. No deviation is acceptable.
- Price quoted should be firm, inclusive of packing, forwarding, insurance and freight charges.
 Percentage/specified amount of taxes & duties should be clearly mentioned otherwise WTL
- reserves the right to reject such vague offer.
- Price to be quoted inclusive of supply, installation & commissioning charges.

40. FORMATS AND SIGNING OF BID

The original and all copies of the proposals shall be neatly typed and shall be signed by an authorized signatory(ies) on behalf of the Bidder. The authorization shall be provided by written Power of Attorney accompanying the proposal. All pages of the proposal, except for un-amended printed literature, shall be initialed by the person or persons signing the proposal. The proposal shall contain no interlineations, erase or overwriting. In order to correct errors made by the Bidder, all corrections shall be done & initialed with date by the authorized signatory after striking out the original words/figures completely.

41. WITHDRAWAL OF BID

Bid cannot be withdrawn during the interval between their submission and expiry of Bid's validity period. Fresh Bid may be called from eligible bidders for any additional item(s) of work not mentioned herein, if so required.

42. INTERPRETATION OF DOCUMENTS

If any bidder should find discrepancies or omission in the specifications or other tender documents, or if he should be in doubt as to the true meaning of any part thereof, he shall make a written request to the tender inviting authority for correction/clarification or interpretation or can put in a separate sheet along with his technical bid document.

43. SPLITTING OF THE CONTRACT AND CURTAILMENT OF WORK

WTL reserve the right to split up and distribute the work among the successful bidders and to curtail any item of work in the schedule partly or fully.

44. PRE-DISPATCH INSTRUCTION

All materials / equipment supplied against the purchase order shall be subjected to Inspection, check and /or test by the authorized representative from WTL.

45. FINAL INSPECTION

Final inspection will be carried by the authorized representative from WTL.

46. SITE INSPECTION

Bidder can inspect (at their own cost) the sites if required, for which they have to take necessary permission from WTL in writing. WTL will take at least four days to organize such permission.

47. ERASURES OR ALTERNATIONS

The offers with overwriting and erasures may make the tender liable for rejection if each of such overwriting/erasures/manuscript ions is not only signed by the authorized signatory of the bidder. There should be no hand-written material, corrections or alterations in the offer. Technical details must be completely filled up. Correct technical information of the product being offered must be filled in. Filling up of the information using terms such as "OK", "accepted", "noted", "as given in brochure/manual" is not acceptable. The Customer may treat offers not adhering to these guidelines as unacceptable. The Customer may, at its discretion, waive any minor non-conformity or any minor

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irregularity in the offer. This shall be binding on all bidders and the Tender Committee reserves the right for such waivers.

48. COMPLIANCE WITH LAW

The contractor hereto agrees that it shall comply with all applicable union, state and local laws, ordinances, regulations and codes in performing its obligations hereunder, including the procurement of licenses, permits certificates and payment of taxes where required. The contractor shall establish and maintain all proper records (particularly, but without limitation, accounting records) required by any law, code/practice of corporate policy applicable to it from time to time including records and returns as applicable under labor legislation.

49. CLARIFICATION OF BIDS

During evaluation of the bids, the Customer/Tender Committee, at its discretion may ask the bidder for clarification of its bid. The request for the clarification and the response shall be in writing (fax/email) and no change in the substance of the bid shall seek offered or permitted.

50. QUALITY CONTROL

- The contractor is obliged to work closely with WTL, act within its authority and abide by directive issued by them on implementation activities.
- The contractor will abide by the safety measures and free WTL from all demands or responsibilities arising from accident/loss of life, the cause of which is due to their negligence. The bidder will pay all indemnities arising from such incidents and will not hold WTL responsible.
- The contractor will treat as confidential all data and information about the system, obtained in the execution of its responsibilities in strict confidence and will not reveal such information to any party without the prior written approval of WTL.
- WTL reserves the right to inspect all phases of contractor's operation to ensure conformity to the specifications. WTL shall have engineers, inspectors or other duly authorized representatives made known to the contractor, present during the progress of the work and such representatives shall have free access to the work at all times. The presence or absence of representatives of WTL does not relieve the contractor of the responsibility for quality control in all phases.
- The Court of Kolkata only will have the jurisdiction to deal with and decide any legal matters or dispute whatsoever arising out of the contract.

51. PERFORMANCE BANK GUARANTEE

Contract Performance Guarantee (CPG) @ 10% of the total project cost for the entire warranty period of 05 years to be submitted within 10 working days from issuance of the work order.

52. SERVICE LEVEL FOR WARRANTY SUPPORT (SLA)

SL	SLA Parameter	Turnaround Time for Support	Target Uptime/year
1	Availability of Electrical, UPS, Precision Cooling and Network (passive) systems	24 Hrs.	99.5%
2	Availability Fire & Security Systems and BMS	24 Hrs.	99.5%
4	Availability of Civil & Interior Infrastructure, Water Leak and Rodent Repellent System	24 Hrs.	99.5%

A SLA shall have to be signed between WTL and SI ensuring 24 X 7 service to maintain 99.5% uptime of the system in its entirety.

53. GENERAL TERMS

- a) All the documents to be submitted by the bidder along with their offer should be duly authenticated by the person signing the offer and if at any point of time during procurement process or subsequently it is detected that documents submitted are forged/tampered/manipulated in any way, the total responsibility lies with the bidder and WTL reserves the full right to take action as may be deemed fit including rejection of the offer and such case is to be kept recorded for any future dealing with them.
- b) No Technical/Commercial clarification will be entertained after opening of the tender.
- c) Quantity mentioned in the tender document is indicative only and orders shall be placed subject to actual requirement. WTL reserve the right to increase or decrease the quantity specified in the tender.
- d) WTL reserve the right to reject or accept or withdraw the tender in full or part as the case may be without assigning the reasons thereof. No dispute of any kind can be raised the right of buyer in any court of law or elsewhere.
- e) WTL reserve the right to ask for clarification in the bid documents submitted by the bidder. Documents may be taken if decided by the committee.
- f) Supporting technical brochures/catalogues indicating each feature in respect of offered model and make must be submitted along with the offer, in absence of which the offer is liable to be ignored.
- g) No dispute by the bidders in regard to Technical/Commercial points will be entertained by WTL and decision taken by the Tender Committee will be final.
- h) Discrepancy in the amount quoted by the bidder due to calculation mistake, the unit rate shall be regarded as firm and the totaling or carry in the amount quoted by the bidder shall be corrected accordingly.
- i) The price offers shall remain firm as per validity asked for and no escalation of price will be allowed.
- j) The acceptance of the tender will rest with the accepting authority who is not bound to accept the lowest or any tender and reserves the right to reject in part or in full any or all tender(s) received and to split up the work among participants without assigning any reason thereof.
- k) The customer/WTL at its discretion may extend the deadline for the submission of Bids.
- 1) The Court of Kolkata only will have the jurisdiction to deal with and decide any legal matters or dispute whatsoever arising out of the contract.
- m) The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the competent authority.

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<u>SECTION – E</u>

TECHNO COMMERCIAL EVALUATION & AWARDING OF CONTRACT

1. EVALUATION PROCEDURE

- The Eligibility Criteria (Section C) will be evaluated by Tender Committee and those qualify will be considered for further evaluation.
- The Tender Committee shall verify the Technical Specification (Technical Specification with Compliance Statement, (Section N) Deviation in specification shall not be allowed. Bidder qualified in Technical Specification shall be considered for further evaluation.
- After qualifying in Eligibility Criteria & Technical Specification, the qualified bidders will only be considered for Financial Bid evaluation.

2. FINAL EVALUATION

Financial Proposal of the bidders qualifying in the evaluation of Technical Specification will be evaluated. The bidder who has qualified in the Technical Specification evaluation and returns with lowest quote (L1) in financial bid would normally be awarded the contract subject to Post Qualification. Price to be quoted as per format given in Section – Q.

3. AWARDING OF CONTRACT

An affirmative Post Qualification determination will be prerequisite for award of the contract to the lowest quoted bidder. A negative determination will result in rejection of bidder's bid, in which event the WTL will proceed to the next lowest evaluated bidder to make a similar determination of that bidder's capability to perform satisfactorily. The successful bidder (s) will have to give security deposit in the form of Security Deposit.

- a) L1 Bidder technically compliant shall be awarded the contract, provided the overall project is within the budget. WTL reserves the right to negotiate and finalize the project contract value, prior to award of contract.
- b) For faster execution of the project, WTL may split the work order among the bidders other than L1 bidder with matching the price of L1 bidder.
- c) The successful bidder, must submit within 7 days, the project implementation plan, with details of
 - i) status of ordering of each and every component to the OEMs, who have provided authorization in the bid;
 - ii) sign the contract agreement with WTL;
 - iii) Assign the Project Manager and submit a list of resources, responsible for the implementation of the project.

If the above are not fulfilled by the bidder who is awarded the contract, WTL shall reserve the right to seek explanation, and after 30 days, in case of unsatisfactory written explanation or for lack of progress, may cancel the order and invite the next highest bidder to match the price and implement the project. WTL reserves the right to forfeit whole or part of the Security deposit in such case and may consider black listing of the bidder, under such circumstances.

d) If L1 bidder disagree to execute the job then WTL will award the job to L2 or higher matching the L1 price.

4. POST QUALIFICATION

The determination will evaluate the Bidder's financial, technical, design, Integration, customization, production, management and support capabilities and will be based on an examination of the documentary evidence of the Bidder's qualification, as well as other information WTL deems necessary and appropriate. This determination may include visits or interviews with the Bidder's client's reference in its bid, site inspection, and any other measures.

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<u>SECTION – F</u>

TECHNICAL CAPABILITY OF BIDDER

(Tender No. WTL/KP/DC/23-24/012)

S1. No.	Project Name	Start Date	End Date / Status	Brief description of project & scope of work (Implementation, operation & maintenance)	Type of project	Approx value of the project	Contact details of the Customer

Authorized Signatory (Signature In full):

Name and title of Signatory: _____

Stamp of the Company: _____

NOTE:

- A. Type of project shall indicate the implementation of datacenter physical infrastructure or any of its subcomponents (IT and or Non-IT Components).
- B. Scope of work shall indicate whether it is implementation, Operation or maintenance.
- C. Submit Customer Order Copies, as applicable.

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SECTION - G

FINANCIAL CAPABILITY OF BIDDER

(Tender No. WTL/KP/DC/23-24/012)

FINANCIAL INFORMATION

Sl. No.	Name of the Bidder	Turnover (Rs. / Crores)			
51. NO.		2019-20	2020-21	2021-22	
1					

Authorized Signatory (Signature In full):

Name and title of Signatory: _____

Stamp of the Company: _____

Note:

Submit the audited financial statement/ audited annual report of the last three financial years.

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<u>SECTION – H</u>

BIDDERS'S DETAILS

(Tender No. WTL/KP/DC/23-24/012)

1	Name of the Firm
2	Registered Office Address
	Contact Number
	Fax Number
	E-mail
3	Correspondence / Contact address
	Name & Designation of Contact person
	Address
	Contact Number
	Fax Number
	E-mail
4	Is the firm a registered company? If yes, submit
-	documentary proof
	Year and Place of the establishment of the company
6	Former name of the company, if any
7	Is the firm
1	 a Government/ Public Sector Undertaking
	 a propriety firms
	 a partnership firm (if yes, give partnership deed)
	 a limited company or limited corporation
	 a member of a group of companies, (if yes, give
	 name and address and description of other
	companies)
	 a subsidiary of a large corporation (if yes give
	the name and address of the parent
	organization). If the company is subsidiary, state
	what involvement if any, will the parent company
	have in the project.
8	Is the firm registered with Sales Tax department? If yes,
	submit valid GST Registration certificate.
9	Is the firm registered for Service Tax with Central Excise
	Department (Service Tax Cell)? If yes, submit valid
	Service Tax registration certificate.
10	Total number of employees. Attach the organizational
	chart showing the structure of the organization.
11	Are you registered with any Government/ Department/
	Public Sector Undertaking (if yes, give details)
12	How many years has your organization been in business
	under your present name? What were your fields when
	you established your organization
13	What type best describes your firm? (Purchaser reserves
	the right to verify the claims if necessary)
	 Manufacturer
	 SupplierVert
	 System Integrator
	 Consultant
	 Service Provider (Pl. specify details)
	 Software Development
	 Total Solution provider (Design, Supply,
	Integration, O&M)
	 IT Company

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14	Number of Offices in district headquarters in West
	Bengal
15	Is your organization having ISO 9001:2015 certificates?
16	List the major clients with whom your organization has
	been / is currently associated.
17	Have you in any capacity not completed any work
	awarded to you? (If so, give the name of project and
	reason for not completing the work)
18	Have you ever been denied tendering facilities by any
	Government / Department / Public sector Undertaking?
	(Give details)

Authorized Signatory (Signature In full):

Name and title of Signatory: _____

Company Rubber Stamp: _____

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<u>SECTION – I</u>

LIST OF CLIENTS OF SIMILAR ORDERS

(Tender No. WTL/KP/DC/23-24/012)

Sl. No.	Name of the Client	Address	Contact Person	Designation	Contact Numbers

Authorized Signatory (Signature In full): _____

Name and title of Signatory: _____

Company Rubber Stamp: _____

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<u>SECTION - J</u>

BID FROM

(Bidders are requested to furnish the Format given in this section, filling the entire Blank and to be submitted on Bidder's Letter Head)

To,

Webel Technology Limited Plot–5, Block–BP, Sector – V, Salt Lake City, <u>Kolkata–700091.</u>

<u>Sub: Supply, installation, testing, commissioning (SITC) of physical infrastructure of a</u> <u>high performance datacenter with one year warranty + four years comprehensive annual</u> <u>maintenance contract (CAMC) for Kolkata Police.</u>

Dear Sir,

- 1. We the undersigned bidder/(s), having read and examined in details the specifications and other documents of the subject Tender no. WTL/KP/DC/23-24/012 dated 14.06.2023, do hereby propose to execute the job as per specification as set forth in your Bid documents.
- 2. The prices of all items stated in the bid are firm during the entire period of job irrespective of date of completion and not subject to any price adjusted as per in line with the bidding documents. All prices and other terms & conditions of this proposal are valid for a period of 180 (One Hundred Eighty) days from the date of opening of bid. We further declare that prices stated in our proposal are in accordance with your bidding.
- 3. We confirm that our bid prices include all other taxes and duties and levies applicable on bought out components, materials, equipments and other items and confirm that any such taxes, duties and levies additionally payable shall be to our account.
- 4. Earnest Money Deposit/Tender Fee: We have transferred EMD & Tender Fee amount online through e-Tender portal.
- 5. We declare that items shall be executed strictly in accordance with the specifications and documents irrespective of whatever has been stated to the contrary anywhere else in our proposal. Further, we agree that additional conditions, deviations, if any, found in the proposal documents other than those stated in our deviation schedule, save that pertaining to any rebates offered shall not be given effect to.
- 6. If this proposal is accepted by you, we agree to provide services and complete the entire work, in accordance with schedule indicated in the proposal. We fully understand that the work completion schedule stipulated in the proposal is the essence of the job, if awarded.
- 7. We further agree that if our proposal is accepted, we shall provide a Performance Bank Guarantee of the value equivalent to ten percent (10%) of the Order value as stipulated in Financial Bid (BOQ).

Sait Dake, Koikata	- 100031
 We agree that WTL reserves the right to accept in or split order within successful bidders without any subject will be final and binding on Bidder. 	
Dated, this2023	
Thanking you, we remain,	
Yours faithfully	
Signature	
Name in full	
Designation	
Sig	nature & Authorized Verified by
	Signature
	Designation
	 Company Stamp
	Company Stamp

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SECTION - K

MAKE, MODEL & PART NUMBER DECLARATION

(Tender No. WTL/KP/DC/23-24/012)

SL.	DESCRIPTION	Make / Brand	Model / Part no.
1			
2			
3			
4			
5			

Authorized Signatory (Signature In full): _____

Name and title of Signatory: _____

Company Rubber Stamp: _____

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<u>SECTION - L</u>

TECHNICAL SPECIFICATION COMPLIANCE STATEMENT

(Tender No. WTL/KP/DC/23-24/012)

L.1 Civil & Interior Works

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable	Make/Model/Part No.
1	Furniture				
1.1	Computer Workstation	Computer workstation to be provided including keyboard tray, CPU trolley and a lockable drawer. Make: Godrej / Featherlite / Décorx			
		The system shall have following minimum specification: (a) Shall accommodate workstation's as per layout. (b) Concealed wire management system for Power /Data / Voice including wire holder etc. (c) Shall be fixed with minimum 02 power points, 02 data points			
		 and 01 voice point for each workstation. (d) Panel 23 MM thick and height 1200mm. (e) Work surface width 1050mm and depth 600 mm. (f) White board & pinup softboard. (g) All surfaces shall be laminated and metal frames shall be powder coated. 			
1.2	Overhead storage units	Overhead storage unit at suitable places in Operation Room. Minimum specification: (a) 600mm (W)x 308mm (D)x 785mm (H). (b) Qty - 03 (c) Shall have laminated finish.			
1.3	Office Chair	Office chair for workstation Make: Godrej/Featherlite/ Decorx/Eqivalent Required features: a. Mid back b. Pneumatic height			

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Salt Lake, I	Kolkata –	700091
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1.4	Stainless steel waste paper basket	 c. Ergonomic design d. Armrests e. Pedestal assembly with castor wheels. f. Reclining back facility g. Upright Position locking h. Swivel Mechanism for lateral movement. Stainless steel waste paper basket with following specification: a. Material shall be stainless steel. b. The shape shall be cylindrical c. Perforated body d. Minimum diameter 10" e. Minimum height 14" 		
1.5	Door mat	Supply of door mat with following specification: a. Material type: Coir b. Colour: Brown c. Minimum thickness 2.0 cm		
2	Doors			
2.1	Aluminum framed glass door	Aluminum framed glass door with powder coated aluminum frame of min 2.5mm thick section and minimum 12 mm clear toughened glass. Door to be fixed with rubber gaskets, SS handles on both sides, heavy duty door closer and locks. Door width minimum 1200 mm and height 2100 mm from the floor.		
2.2	Fire Rated Metal Doors	Fire rated metal doors single & double shutter, as per floor plan and having following minimum specification: Door profile shall be double rebate KERF frame 143mm x 58mm made out of 1.6 mm thick G.I. sheet (zinc coating not less than 120 gm/sqm). The infill material shall be resin bonded honeycomb core. Frames should be provided with back plate bracket and anchor fasteners for installation on a finished plastered masonry wall opening. Door shutter shall be minimum 46mm thick fully flush double skin door with circular / rectangular vision panel with necessary beading and screws. Door shutter shall be fixed with SS (304 Grade) ball bearing butt hinges, mortice lock, Heavy duty door closer, D type pull handle with rose (250x 19mm) and necessary screws all complete.		

		All doors and frames shall be		
		finished with polyurethane		
		alphatic grade paint of approved		
		colour.		
3	False			
	Ceiling			
3.1	Mineral	Mineral fibre false ceiling having		
	Fibre False Ceiling	following minimum tile specification:		
	Cennig	specification.		
		Tile Type : Lay-in ceiling type (
		Exposed Grid Ceiling)		
		Dimensions : 600 x 600 mm x		
		15mm		
		Edge Detail : Square - 3		
		Light Reflectance : upto 84% (ISO 7724-2, ISO -3)		
		Humidity Resistance : 95%		
		Colour : White similar to RAL		
		9003 / NCS S1002-G		
		Resistance to fire : REI 180		
		Building Material Class A2-s1,d0		
		as per EN 13501-1		
		Thermal conductivity : 0.048 - 0.09 W/(mk)		
		Recyclability : 100%		
		Sound Absorption : NRC = 0.65 as		
		per ASTM C 423		
		Sound Attenuation : CAC = 33 dB		
		as per EN 10848		
		Thickness/Weight : 4.80 Kg/m2		
		The tiles are to be installed on 15		
		mm grid system.		
		Plain gypsum false ceiling along		
		grid ceiling perimeters with		
		approved G.I frame work and hangers including openings for		
		lights to be framed with G.I.		
		members as and where		
		required, as per site conditions.		
		Detailed ceiling layout in color to		
4	Raised Access	be submitted.		
4.1	Raised Access	Access Floor panel of 35mm		
	Access Floor	thick and size 600 x 600 mm		
	Panel	shall be all steel welded		
		construction with an enclosed		
		bottom pan of hemispherical		
		recesses for increased support		
		and the top plain sheet is fuse- welded at 129 locations to form a		
		panel. The hollow panels post		
		manufacturing shall be pre-		
		treated on an automated pre		
		treatment line and further		
		coated with electrostatically		
		deposited epoxy raisin paint 60 -		
		80 micron thick on all the		

		exposed sides of the panel. Post- coating the hollow core of the panel is injected with a lightweight, fire retardant, non- combustible cementitious compound at high pressure to ensure support of not less than 98% of the top surface area of the panel. The Panel should have a Low Flange Width of 8.00 mm on all four sides	
		Beam width of the panel should be 19.50 mm Corner Radius of the panel should be R 15.00 mm & with reduced cantilever flange edge of 19.60 mm LEED/Green Certified	
4.2	Substructure / Stringer	Substructure installed to support the panel shall be suitable to achieve a minimum finished floor height of 600 mm from the existing floor level. The stringer shall be continuous box type, galvanized steel cold rolled construction for strength, lateral stability, and for enhanced rolling loads performance.	
4.3	Load bearing capacities / fire rating	Concentrated Loads : 680 Kgs (1500 lbf) with a top-surface deflection under load and a permanent set not to exceed 2.54 mm & 0.25 mm (0.10 & 0.010 inches) respectively according to CISCA A/F, Section I "Concentrated Loads" Uniformly Distributed Load (UDL) : 3100 kg/m2 Fire Rating : The Panels shall confirm to Class O & Class 1 Fire Ratings tested as per BS 476 Part 6 (Fire Propagation) & 7 (Surface spread of flame) as also ASTM	
4.4	Ramp /Steps	E84 1998 (Flammability) and ASTM E136 (Combustibility) Necessary ramp/steps in location as shown in the drawing to be provided to access the false floor. The ramp/step shall be provided with antiskid tape at 6" interval of approved colour and make.	
4.5	Panel Lifter	Double cup panel lifter - 02 Nos Panel Lifter should be from same OEM as raised floor panel.	
5	Wall Treatment		
5.1	Acrylic Emulsion paint	Wall painting with acrylic emulsion paint of approved color and brand to give an even	

		shade :Two or more coats on new work. The surface shall be thoroughly brushed free from dust, dirt, grease, mortar droppings and other foreign matter and sand papered smooth. Thereafter a smooth surface shall be prepared by applying putty, including filling up the undulation and then sand papering the same after it is dry. After the primer coat has dried, the surface shall be lightly sand papered to make it smooth for receiving the subsequent coat of paint taking care not to rub out the priming coat. All loose particles shall be dusted off after rubbing. Minimum two coats of paint shall be applied with brushes/rollers in horizontal strokes followed immediately by vertical, which together shall constitute one coat. The subsequent coats shall be applied after a time interval of at least 24 hours between		
		consecutive coats to permit of the proper drying of the preceding coat.		
6	Insulation			
6.1	Thermal Insulation	Thermal insulation. Insulation material shall be minimum 13mm thick, Closed Cell Elastomeric Nitrile Rubber with aluminium foil laminated on one side. Thermal conductivity of insulation material shall not exceed 0.035 W/(m.K) at mean temperature of 0°C as per EN		
		12667. Moisture Diffusion Resistance Factor or ' μ ' value of insulation material shall be minimum 12,000 without any external barrier as per EN 12086.		
		The insulation material shall have fire performance such that it passes Class 1 as per BS476 Part 7 for surface spread of flame and also passes Fire Propagation requirement as per BS476 Part 6 to meet the Class 'O' Fire category.		
		The insulation material shall have fire performance of V0, HB as per		

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L.2 Electrical Distribution System

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	Electrical Panel			
1.1	Main LT Panel	 Main LT panel shall consist of three (03) nos of incomers, ACB of suitable rating for carrying the load of the entire datacenter and one bus coupler of similar rating. Bus bar of LT panel shall be of suitable rating. Outgoings of the LT Panel shall be through MCCB's of suitable ratings. The main LT Panel shall be self-supporting, Indoor Type, dust, vermin/rodent proof. Any unused holes/cable entries shall be blocked by using detachable metallic sheets to prevent entry of rodent/reptiles. The structure of Panel shall be made with 2mm thick CRCA sheet and base channel as required. Heavy duty Lifting hooks (4 No's heavy duty lifting hooks) shall be provided for lifting of Panel. The door shall be in parts and shall have locking arrangement with Knob 		

	1	I
• Panel shall have a heavy duty base framework. The frame design shall be		
such that the height between bottom		
cable entry plate and the connection		
hole of brought out link of incoming,		
outgoing MCCBs shall be minimum		
450mm.		
All herdeners should be of high togeth		
• All hardwares should be of high tensile steel & Zinc passivated. Size of spring		
washers & flat washers should be as per		
relevant IS for individual bolt.		
 All the components shall be mounted 		
on separate steel plate with necessary		
stiffeners or suitable channels so that all		
the components can be checked and		
replaced from front side after opening the door.		
All items will be labelled using riveted		
engraved metallic labels.		
 All incoming and outgoing cables shall 		
enter the enclosure from bottom side.		
Bottom plate shall have individual		
detachable gland plates for all cables.		
These detachable plates shall be accessible and removable from inside.		
All cable entry plates shall have		
knockouts.		
• A 50 x 6 mm GI strip should be		
provided on the backside of the panel		
with adequate holes (13mm dia each)		
with nuts, bolts and washers for making		
earth connections for all panels and cables. Length of the GI strip shall be		
same as panel length. Zinc pated and		
passivated double earthing studs with		
nuts, bolts and washers shall be		
provided on the earthing strips.		
• Danger plates (415 VAC) shall be fixed		
on both front and rear of the LT panel		
including the bus-bar chambers.		

	 All control wiring shall be done with single core 2.5sqmm, FRLS PVC insulated, 1100v grade, stranded copper cable, conforming to relevant Indian standard. All control cable ends shall have crimped copper lugs for proper termination and ferrules for identification of wiring. All the control circuit wiring shall be connected with terminals blocks, ferrules for easy identification. All panel doors shall be earthed. No bimetallic joints shall be permitted in the links of connections. Special non-deteriorating Neoprene rubber gaskets shall be provided at panel doors. Sufficient space should be provided for proper glanding, dressing, connecting up and maintenance of all cables. Sufficient nos. of cable entry holes shall be provided in the bottom plate. All items shall be duly fixed with zinc passivated high tension hard-wares. DIN channel shall be used for components having facility to mount on DIN channel. All items of the Panel must conform to relevant IS or IEC (with latest amendments) for performance and safety. Power supply to multifunction meter shall be 230 VAC, and through dedicated circuit protected by suitably. 	
	safety. Power supply to multifunction	
Air Circuit Breakers(ACB)	Air Circuit Breaker's shall incorporate the following: • In = minimum 630 Amps • 4 Poles • Shunt Trip • Under voltage trip @ 80% of rated voltage • Breaking capacity – Icu = 50 kA • Spring charging – Electrical and manual • Closing – Electrical and manual • Tripping – As per OEM & model.	

	Molded Case Circuit	Each Electronic release MCCB should	
	Breakers (MCCB)	incorporate the following essential	
		features:	
		• Suitable for operation at 415 VAC, 50	
		Hz	
		• 4 pole	
		• 25 kA breaking capacity	
		Electronic (microprocessor) release	
		with	
		S/C, O/C & E/F (LSI-g) protection	
		Suitable for LOTO arrangement	
1.1.1	BUS-BARS AND BUS	Each bar should be as follows:	
	CHAMBER	• Type - Rigid, flat tinned copper bars	
		 Neutral bar size equal to the phase 	
		bars	
		Current Rating – Suitable	
		• Mounting – preferably edgewise for	
		better cooling. If mounted flat,	
		appropriate de-rating to be applied.	
		Support – Non-hygroscopic, mounted	
		at lengths to take care of stress	
		generated during short circuit currents	
		• Busbar Enclosure – IP 30 or better	
		The bus-bar shall be insulated with heat	
		shrinkable PVC sleeves, and shall be	
		supported at required intervals with non-	
		hygroscopic, non-deteriorating, and non	
		inflammable SMC / FRP supports having	
		adequate mechanical strength and a high	
		tracking resistance, to withstand short	
		circuit fault levels up to 50 kA for 1 sec.	
		All risers and connections from bus bar	
		shall be carried out with same material as	
		the main bus bars of current rating as per	
		rating of individual cubicle switch. To	
		suit the stringent site conditions, the bus	
		bar system shall be designed with	
		clearance between phases greater than	
		specified in the standards.	
		There shall be two UPS O/P Panels for	
		Server-1 & 2 and for respective UPS	
		systems. UPS panel shall have two MCCB	
	UPS O/P Panel	incomer's and two (02) nos of MCCB	
		outgoing's and a spare. The outgoings	
		shall be connected to two respective	
0	DIGEDIDUCTION DOV	Rack DB's of suitable configurations.	
2	DISTRIBUTION BOX		
2.1	DB	Supply, installation and commissioning	
		of suitable size DB for CAC, PAC,RAW &	
		Light, UPS AUX, RACK, Emergency	
0.0	BRinderterne Ott 14 m T	Lighting etc.	
2.2	Miniature Circuit Breakers	SP-MCB:	
	(MCB)	• Specification: IS/IEC 60898-1 (CB for	
	1	OC Protection, Pt-1, CB for AC	
		operation).	
		• C- curve	
		C- curve Rated Operational Voltage and	
		• C- curve • Rated Operational Voltage and frequency: Ue = 230/240 VAC, 50 Hz	
		 C- curve Rated Operational Voltage and frequency: Ue = 230/240 VAC, 50 Hz 10 kA breaking capacity 	
		• C- curve • Rated Operational Voltage and frequency: Ue = 230/240 VAC, 50 Hz	

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		• All blank openings should be fitted with blanking plates	
2.3		TP MCB: • Specification: IS/IEC 60898-1 (CB for OC Protection, Pt-1, CB for AC operation) • C- curve • Rated Operational Voltage and frequency: Ue = 415 VAC, 50 Hz • 10 kA breaking capacity • "Three protected poles", as per IS/IEC 60898-1 • Suitable label holder for identification • All blank openings should be fitted with blanking plates	
3	Lighting wiring		
3.1	Lighting wiring	All lighting wiring shall be done with FRLS, 1.5 sq.mm single core wire in PVC conduit. Wire shall conform to relevant BIS codes.	
4	Switches / Sockets / Regulator	s/etc	
4.1	Switches / Sockets / Regulators/etc	Shall be of modular type, of appropriate rating. For control of light points, wall outlets, AC, etc.	
5	Illumination (Lighting) system		
5.1	Illumination (Lighting) system	Data Centre area illumination level achieved using following consideration in line with NBC & TIA guidelines. Raw power lighting & Emergency Lighting shall be provided with LED fixtures to make the optimal choice between Lighting power density.	
6	Earthing System	Inglining power density.	
6.1	Earthing System	Earthing system for effective neutral point earthing and body earthing	
7	WIRING ACCESSORIES / DB /	-	
7.1	SPN DB	Each DB shall be with specification as below: • SPN Type, metallic enclosure • 240VAC, 50 Hz rated • MCB as incomer, In as per design requirement. • 6 way outgoing minimum (may be higher if required by design) • SP MCB as outgoing • All MCB to be "C" curve • MCB rated for 6/16/20 Amps (as required by design, and suited for the load) • Copper busbars, rated for 100Amps, with equal phase and neutral bars • Completely covered – double door • Proper provision for earthing • Mounting: Surface/Flush • Conforming to IS:13032 (AC MCB Boards for voltages not exceeding 1000V	

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7.2	TPN DB	Each TPN DB shall have the following specs: • 4 pole, MCB as incomer • 415VAC, 50 Hz • SP MCB as outgoing, total 8 way on each phase (Total 24 MCB outgoing for all three phases) - individual MCB rated according to design and load • Metallic enclosure, with single/double door • Conforming to IS:13032 (AC MCB Boards for voltages not exceeding 1000V)		
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L.3 MODULAR UPS

Sn	Sn Category Technical Specification		Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable	
			e Double Conversion type g rectifier, inverters with latest wave PWM, along with in-built stati		
Α		INPUT			
1		Input voltage	400V, 3 phases, 3 or 4 wires		
2		Input voltage tolerance	290 to 470Vac at 100% load		
3		Input frequency	50 Hz		
4		Input frequency tolerance	50HZ +/-10Hz		
5		Architecture	Modular		
6		Current THD	<3%		
7		Each Module rating	Min 25kva max 50kva		
8		Control	Fully Digital, DSP PWM technology		
10		Event Log	The Event Log shall store up to 2000 in the front display panel		
11		Topology	Level 3 or better		
12		Self-Capacity test	Full load Capacity test of the UPS at site without connecting any external load.		
В		OUTPUT			
1		Nominal Module full load rating KVA/KW	100KVA /100KW @40Deg C		
2		Rated voltage	400V 3Ph		
3		Output voltage adjustment range	+/- 5%		
4		Output power factor range	0.6 lagging to unity without any KVA derating		
5		Output voltage harmonics	THDV 1% for liner load and 3% for non-liner load		
6		Crest Factor	3:1		
7		Efficiency (Online mode)	96% or better without transformer		
8		Overload rating	110% for 60 minutes 125% for 10 minutes		

9 10 11 12 13 C 1 2 3 4 5 6	Inbuilt Manual by pass switch Inbuilt Static by pass switch Emergency Stop Back feed protection Acoustic Noise (At 1 meter from UPS) DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type DC Pinple voltage	150% for 60 seconds Required Required Emergency Stop Button on its Front panel. Required Max 60 dbA(from 1 M) Min 400V +/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make 12V SMF	
10 11 12 13 C 1 2 3 4 5	switch Inbuilt Static by pass switch Emergency Stop Back feed protection Acoustic Noise (At 1 meter from UPS) DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	Required Emergency Stop Button on its Front panel. Required Max 60 dbA(from 1 M) Min 400V +/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
10 11 12 13 C 1 2 3 4 5	switch Inbuilt Static by pass switch Emergency Stop Back feed protection Acoustic Noise (At 1 meter from UPS) DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	Required Emergency Stop Button on its Front panel. Required Max 60 dbA(from 1 M) Min 400V +/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
11 12 13 C 1 2 3 4 5	Emergency Stop Back feed protection Acoustic Noise (At 1 meter from UPS) DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	Emergency Stop Button on its Front panel. Required Max 60 dbA(from 1 M) Min 400V +/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
12 13 C 1 2 3 4 5	Back feed protection Acoustic Noise (At 1 meter from UPS) DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	Front panel. Required Max 60 dbA(from 1 M) Min 400V +/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
13 C 1 2 3 4 5	Acoustic Noise (At 1 meter from UPS) DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	Max 60 dbA(from 1 M) Min 400V +/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
C 1 1 2 3 4 5 5	from UPS) DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	Min 400V +/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
1 2 3 4 5	DC CHARACTERISTICS Nominal DC bus voltage DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	+/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
1 2 3 4 5	DC voltage stability DC ripple Charge Current (Min.) Battery Make Type	+/- 1 % < 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
3 4 5	DC ripple Charge Current (Min.) Battery Make Type	< 1 % (with Battery connected) Built-in 30A or better EXIDE/AMARARAJA make	
4 5	DC ripple Charge Current (Min.) Battery Make Type	Built-in 30A or better EXIDE/AMARARAJA make	
5	Charge Current (Min.) Battery Make Type	Built-in 30A or better EXIDE/AMARARAJA make	
	Туре		
6	Туре	12V SME	
	DC Ripple voltage	<=1%	
7	Compatibility	Compatible with SMF,li-Ion Battery	
8	Battery block per string	Variable DC bus it can support at least variation of 8 nos of battery (only even also acceptable). Battery each bank more than 50nos.	
9	Battery backup time	30min	
10	Battery capacity	Battery ah calculation as per IEEE PF @0.8	
11	In-built Intelligent Battery Management integrated	Automatic Programmed as well as Manual Online Testing of the Battery Bank from UPS Front Panel LCD. Depth and Time of Discharge, user settable. Post Test status indication on Front Panel LCD Screen of UPS Module.	
12	Battery isolation	Battery circuit breaker	
13	Automatic Battery testing	Automatic battery testing from front display	
14	Battery cables	UPS to Battery bank, should be suitably rated copper cables	
15	SNMP/MODBUS communication facility	Required	
D	CONTROLS		
1	Charger input Isolator		
2	Battery circuit breaker (mount enclosure)	ted separately in its own	
3	Inverter output Isolator		
4	Bypass line Isolator		
5	Maintenance Bypass Isolator		
6	Alarm acknowledge / Reset by	utton	
7		for Manual switching On/Off of	

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8				
E				
1		LCD panel for Me	asuring Output voltages, Output currents and	
		Frequency, Battery Voltage and Charging / Discharging		
		current.		
2	LCD panel displays status of the Battery charge status (in %).			
3		Display- Digital L	CD HMI type touch screen	
Envir	onmental Co	nditions:		
Pan	el type		Floor mounted front access only	
Ope	Operating temperature		0 - 50 deg.C continuous without KVA	
_			derating or provide higher kva to match the	
			KVA @50Deg C	
Rela	ative humidity		< 90 % (20 deg. C.) non-condensing type	
Alti	tude		1500 m from MSL	
Stor	rage and Trai	nsportation temp	From -25 to + 70 deg. C.	
for	UPS	- •	-	
Pro	duct Brochures	s Original proc	luct brochure of the UPS battery should be	
		submitted alo	ng with offer.	
OEI	M Experience	OEM should	have supplied 60 KVA or above offered	
1		1 1 1 7 7 8 9		1

model UPS system in at least three (03) datacenter facilities in India in last 05 years. Documentary evidence

OEM Local Service Centre within 25 Km from site

ISO 9001, ISO 14001, ISO 27001 and 45001 certified

L.4 Precision AC (PAC)

Service Centre

Certification

required.

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	General	High Performance Precision AC Cooling Unit		
		The Precision AC Units should have high sensible heat ratios, to match high sensible loads of Server Rooms. A Microprocessor controlled Precision package AC system with R-410A refrigerant shall be suitable to take thermal and air quantity inputs from the server and adjust its operation accordingly so as to achieve highest levels of performance and efficiency.		
		The Indoor unit shall comprise of Scroll Compressor, EC fans, Evaporator DX Cooling Coil with hydrophilic coating, Microprocessor controllers, Expansion valves, Driers, G4 Filter, Suction and Discharge piping, Internal power and Control wiring, Crankcase heaters, Infrared Humidifier, Heaters, HP/LP Cutouts, Power and Control contactors, water leak detectors and Other Electrical accessories. The unit shall be supplied with suitable card for both SNMP & Modbus connectivity. Unit must be capable of functioning upto 100 metre of Copper piping between Indoor & Outdoor units.		
		The dimensions of indoor unit must not exceed		

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		900 mm*900 mm*2000mm (W*D*H).	
		The cooling capacity of machine must be at least 6.5 TR at 40 degree ambient temperature and 22 degree±1 room temperature & 50%±5 humidity. Selection sheet must be provided along with the bid.	
		Type – Downflow type, Air cooled	
		SHR – 0.98	
		Airflow > minimum 6000 Cu.m /hr	
		Refrigerant Circuit - Single	
		Refrigerant – R410A	
		Electronic Expansion Valve - Yes	
2	OEM Qualification	OEM should be ISO 9001, ISO 14001, ISO 27001 and 45001 certified.	
	Criteria	OEM should have more than 50 PAC installations in	
		Eastern India.	
		UPS & PAC should be from same OEM for better	
	<u> </u>	integration and service support.	

L.5 Room AC

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	ROOM AC			
1.1	General	 i. Cooling capacity : 2.0 Tr ii. Type: Single split wall mounted type. iii. Refrigerant : R22 iv. Condenser & piping: Copper. v. Evaporator: Copper with blue fin. vi. Operating Voltage: 230VAC, ± 10%, single phase, 50Hz. vii. Star Rating: Minimum 5 star rating of BEE. viii. Noise level : Less than 50dB at high speed fan mode ix. Colour / Shade: White / Off White / Ivory. x. Non Inverter type. 		
1.2	Installation	In UPS/Battery Room & Telco / Operation Room		
1.3	OEM Qualification Criteria	OEM should be ISO 9001, ISO 14001, ISO 27001 certified.		

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L.6 Fire Detection & Alarm System

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	ADDRESABLE F	IRE DETECTION & ALARM		
1.1	FIRE DETECTION &	Intelligent addressable microprocessor based single-loop Fire Alarm panel.		
	ALARM	The fire alarm system shall be integrated with the access control system to deactivate all door locks in case of emergency.		
		Instructions/signal from panel should also shut down the PACs in case of fire.		
		Analogue Addressable Multi Criteria type Smoke Detector UL,ULC,FM & CSFM approved, Polarity insensitive via SureWireTM technology.		
		Addressable Pull Down type Manual Call Point with inbuilt isolator.		
		Addressable Monitor Modules with inbuilt isolator		
		Addressable Control Modules with inbuilt isolator		
		90 dB Sounder cum strobe UL,ULC Listed		
		The system modules shall communicate with an RS 485 network communications protocol & SNPM Enabled.		
		Audible alarms : Electronic sounders shall be fitted with flashing light and adjustable sound outputs at suitable locations.		
		System to be commissioned by trained commissioning engineer.		
1.2	OEM Qualification Criteria	OEM should be ISO 9001, ISO 14001, ISO : 45001 & ISO 27001 Certified.		
		OEM should have Regional office at Kolkata.		

L.7 Very Early Smoke Detection & Alarm

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	General	VESDA system to be installed on the hot aisles of the Server Room.		
		Should be integrated with the fire suppression system.		
		Hooter to generate alarm.		
		To be installed for Server farm-1		
		Controller to be installed inside Server Farm-1		

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		System to be commissioned by trained commissioning engineer.	
2	OEM Qualification Criteria	OEM should be ISO 9001, ISO 14001, ISO : 45001 & ISO 27001 Certified.	
		OEM should have Regional office at Kolkata.	

L.8 Fire Suppression System

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	FIRE SUPPRESSI	ON SYSTEM		
1.1	FIRE SUPPRESSION	Novec 1230 based Fire Suppression System for the Server Farm including all accessories.		
	SYSTEM	Care should be taken that none of the Greenhouse Gases identified in the Kyoto Protocol is used for fire suppression application.		
		The minimum criterion for the selection of the Clean Agent will be on the following parameters. • Zero Ozone Depleting Potential. • Global Warming Potential not exceeding one. • Atmospheric Lifetime not exceeding one week.		
		The Clean Agent considered for the suppression system must be suitable for managing occupied areas with NOAEL Level (No observable adverse effect level) of 10% as compared to the design concentration to ensure high safety margin for the human who might be present in the hazard area.		
		Piping should be completed for both the Server Rooms 1 & 2.		
		The minimum design standards shall be as per NFPA 2001, 2004 edition or latest revisions.		
2	OEM Qualification Criteria	OEM should be ISO 9001, ISO 14001, ISO : 45001 & ISO 27001 Certified.		
		OEM should have Regional office at Kolkata.		
2	PORTABLE FIRE	EXTINGUISHERS		
2.1	PORTABLE FIRE EXTINGUISHER S - OTHER AREA	CO2 Type (4.5 Kg Capacity) or Clean Agent (6.0 Kg) Type Fire Extinguisher, for Electrical, UPS & Battery Rooms, as per IS-15683, ISI Marked, with capacity as indicated or as per site requirements.		

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L.9 Access Control System

Sn	Category	Technical Specific	ation	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
_	MULTIDOOR SITE	-			
1	CONTROLLER				
		Number of Users	25,000		
		Events Buffer	5,00,000		
		Door Controllers			
		on Ethernet	255		
	CAPACITY	Door Controllers on RS-485	32		
	CAPACITI		-		
		Ethernet	Yes (10/100 Mbps)		
		Wifi	Inbuilt Wi-Fi Module (IEEE 802.11 b/g/n)		
		RS-485	Yes		
		USB	l USB Port (for Data Transfer and for 2G-3G/Wi-Fi Dongle)		
	COMMUNICATION	SD Card	Yes (8GB)		
		CPU	Cortex A8 800 MHz		
		Flash Memory	256 MB		
			256 MB (DDR3 SDRAM @		
		RAM Memory	800MHz)		
	CONFIGURATION	Operating system	Linux based OS		
			Yes (4 states - short, open,		
		AUX-IN Port	activated & non-activated)		
	INTERFACES	AUX-OUT Port	Form C and SPDT Relay		
		System Integration	API for software integration		
			Uses Built-in GUI to Control		
		Standalone Mode	Door Controller and Users		
			Uses Feature and Capacity Enhancement for Access		
	OPERATIONAL		Control with Connection to		
	MODES	Network Mode	Server		
		Tamper Detection	Yes		
		LED	Tricolor LED		
		Buzzer	Yes		
	OTHERS	Certification	FCC, CE, RoHS		
		Dimensions (L x H	125.25mm X 81.5mm X 30.5mm (4.93" x 3.20" x		
		x D)	1.20")		
		Weight	140gm (0.308 lbs)		
	PHYSICAL	Mounting	Wall Mounting or Table top		
		Buzzer	Yes		
	AUDIO-VISUAL	LED	Available for Power, Status and Alarm		
	ELECTRICAL	Input Power	External Power Adapter (12 VDC @ 2A)		
			5% to 95% RH Non-		
		Humidity			
	ENVIRONMENTAL	Operating Temperature	-10°C to +55°C (14°F to 131°F)		

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
2	ACCESS CONTROL SYSTEM			
2.1	Access Control System	Biometric Finger Print cum Smart Card Reader for server room entry and exit & Proximity/ Smart card readers for other areas Smart Cards, 13.56 MHz, Contactless Smartcards, blank faced Electromagnetic Locks (600 Ibs) with Magnetic Contact for single leaf doors.		
		Electromagnetic Locks for Double Doors (2x600 Ibs) with Magnetic Contact Emergency Door Release (Break Glass Type).		
2.2	General	All access control doors should be automatically de-activated in the event of fire alarms. All the necessary hardware, software with its cabling are to be supplied and installed.		
3		OEM should be ISO 9001, 14001, 27001 & 45001 certified.		
3.1	OEM Qualification Criteria	Should have operations in India for more than five (05) years.		

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L.10 CCTV Surveillance

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	CCTV Surveil	lance		
1.1	Camera	 Bullet/Dome IP Camera, as per site requirement. Resolution : 5 MP (2592 x 1944) Sensor Type and Size : 1/2.8" CMOS 5MP Active Pixel Progressive Scan, Back Illuminated Image sensor Focal Length : 2.8 mm Minimum Illumination: Color - 0.01 Lux @F1.2 (AGC ON) Monochrome - 0 Lux Iris Type: Fixed IR Range: Upto 30 m Bitrate : 128 Kbps - 16Mbps Video Compression: H.265, H.264, MJPEG Frame Rate : 1-30 fps ONVIF Profiles : Profile S and G Motion Recording : Yes WDR: True WDR (120dB) Network Disconnect Alert : Yes Power Consumption: 7.0 W Certifications: BIS, CE, IP67, ONVIF (Profile T, S & G), FCC 		
1.2	NVR	 Input: 32 IP Channels Output: HDMI (2.0) - 1 Port (Main) Video Compression: H.265/H.264/ Motion JPEG Audio Compression: G.711µ Digital Zoom on Live: Yes Multiple Camera Viewing: Through Cascading Recording Type: Continuous, Scheduled, Manual, Alarm Motion detection, View tampering, Tripwire, Object intrusion, Missing Object, Suspicious Object, Loitering Detection, Audio Exception, Object Counting: Required SATA Interface: 2 SATA III (10TB per port) NAS: 2 NAS (CIFS, NFS) USB: 3 ports (2 x USB 2.0, 1x USB 3.0) RAID: RAID-0, RAID-1 Network Interface: 2 Ports x Ethernet (RJ-45) 10/100/1000Mbps HDMI: HDMI (2.0) - 1 Port (Main) Processor: ARM Cortex Quad-core OS: Embedded Linux Power Input: 12V DC, 5A Regulatory Approvals/ Certifications: FCC (FCC Part 15 Subpart B Class A), ROHS, BIS, CE, EN/IEC 		

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1.3	General	 The CCTV system should be IP based The system shall provide visual images from the cameras located through out the facility. The cameras shall be fed into the NVR located in the control room. The NVR shall consist of 32 channels with built-in recording system. The CCTV should be equipped with digital recording facility for later scrutiny, with at least 45 days of recording facility. 	
1.4	OEM	OEM should be ISO 9001, 14001, 27001 & 45001 certified.	
	Qualification Criteria	Should have operations in India for more than five (05) years.	

L.11 Rodent Repellent System

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	RODENT REPEL	LENT SYSTEM		
1.1	RODENT REPELLENT	Digital Technology		
	SYSTEM	Networkable on RS-485		
		Auto & Manual mode of operation		
		Ultra sound based master control unit capable of connecting to minimum no of satellites which is sufficient for entire datacenter.		
		Maximum Power Consumption: 15 Watt		
		Minimum Area coverage per Transducers: 150 Sqft Above False Ceiling, 300 Sqft below False Ceiling & 150 Sqft below False Floor		
		Transducers Sound Output: 50 to 110 dB		
		Transducers Power Output: 800 mW		
1.2	OEM Qualification Criteria	OEM should be ISO 9001 & 14001 certified.		
		Should have more than 10 installations in datacenter facilities in India. Self-declaration from OEM to be enclosed.		

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L.12 Water Leak Detection System

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	WATER LEAK DI	ETECTION SYSTEM		
1.1	WATER LEAK DETECTION	Water Leak detection Panel with LCD display.		
	SYSTEM	Water leak detection cable		
		Sounder		
		2 core 1.5 sq.mm PVC Insulated copper conductor cable		
		25mm PVC Conduit		
1.2	OEM Qualification Criteria	OEM should be ISO 9001 & 14001 certified.		
		Should have more than 10 installations in datacenter facilities in India. Self-declaration from OEM to be enclosed.		

L.13 Rack Containment

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	Rack Containme	nt		
1.1	General	Supply and installation of Cold Aisle Containment.		
		To be sized for two equal length rows of IT racks. CAC width of 1800 mm.		
		The Containment uses a series of panels, door frames and doors, and air blocks to enclose a cold aisle zone		
		By preventing mixing of cool supply air and hot exhaust air, this self- contained configuration is		
		capable of supporting a complete range of low, medium and high power/heat density loads, and can be deployed in multiple environments without		
1.2	Ceiling Panel	affecting the surrounding area. Ceiling panels shall be minimum 5.0 mm toughened glass with aluminum framing. The Cold Aisle Containment Glass has to		
		withstand temperature of 80° C. Minimum Light Transmission per ASTM D1003 equal to 82% or greater.		
		Ceiling panels shall be designed to be supported by the frames of the IT Equipment racks. Ceiling Panel frames sizes shall be suitable to match up		
		with various rack widths, row width, and aisle widths.		
		The ceiling system shall be designed to permit removal of the ceiling panel from within the contained zone without the use of tools for service access to the space above the Aisle.		

1.0			
1.3	Door Frames	Metal door frames and doors shall be provided to	
	and Door	establish air containment at the end of two rows of	
		racks. The door frame system shall match the	
		height of the 42U rack based equipment, and	
		match the design width of the contained aisle.	
		Doors shall be Sliding, to permit access into the	
		contained aisle for maintenance or servicing.	
		Doors shall be provided with a window, handles	
		and latches.	
		Automatic door closure system for sliding door.	
		Material : Aluminum alloy & Temper (HE9) WP as per IS:1285-2002	
1.4	Frames and	Foam Rubber gaskets or metal/composite, brush,	
	Component	or plastic air blocks shall be installed at Aisle	
	Seal	joints to minimize open gaps between	
		containment system components, such as door	
		frames, ceiling and duct panels, and IT Equipment	
		racks and rack based equipment.	
1.5	Blanking	Can be used to provide an aesthetic alternative	
	Panels, Height	for varying dimension enclosures.	
	Adapters, and	Blanking Panels shall be placed where gaps	
	Depth	between racks exist to seal contained aisle. The	
	Extenders	panel shall match the height of the enclosures and	
		match the width of the gap. It shall not be mounted	
		to any adjacent blanking panels nor shall it	
		support any adjustable height supports.	
		Depth Extenders shall mount to front or back of	
		enclosures to align aisle. The extender shall	
		match the depth of the adjacent racks and match	
		the width and height of the enclosure (including	
		any height adapters) of which it is being mounted.	
		300 mm height adapters shall mount to the top of	
		enclosures to align the enclosure height. The	
		height adapter matches the height of the adjacent	
		racks and shall match the width and depth of the	
		rack (including any depth adapters) of which it is	
		being mounted.	
1.6	Compliance / Authorization	Racks and containment should be from the same OEM.	
1.7		OEM should be ISO 14000 & 27000 certified.	
1.8	OEM	OEM should be ISO 45000 certified.	
1.9	Qualification Criteria	OEM should be in operation in India for more than five (05) years.	
1.10		Racks & Rack Containment should be from same OEM.	

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L.14 Local Area Networking

TECHNICAL SPECIFICATION FOR MPO OM4 FIBER COMPONENTS

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	PRE-TERMIN	ATED MPO MODULES – MULTIMODE OM4		
		MPO – LC 24F Cassette		
		The 24-fiber module shall have 12 pre-		
		installed duplex LC adapters at the front		
		routed to 2x12-fiber / 1x24-fiber Low loss		
		OM4 MPO adapters at the back.		
		All MPO modules must support 'Method B'		
		wiring pattern for ease of scalability. Same cassette should be used in both end of the link, without need of flipped or straight		
		wiring management.		
		Dust caps on each port must be translucent to support VFL tests, without removing caps. Test light should be visible at the remote end, even with dust caps ON.		
		The cassettes shall be UL 1863 listed.		
		MPO Modules must be compliant to ISO 18598, ANSI/TIA 5048 and ANSI/TIA 5017 standard specifications for real time monitoring and physical network security requirements.		
		Max Loss of a typical MPO 100m channel with		
		4 MPO connections shall not exceed 1.70dB. Documentary evidence to be provided.		
		The offered MPO modules must support the given list of applications and SAN links as per		
		RFP performance specifications stated above.		
		OEM shall have RCDD and DCDC certified		
		technical manpower in India for technical		
		support throughout the project implementation phase.		
		Cabling OEM shall have ISO 9001 & 14001 manufacturing facility in India.		

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	MODULAR FIBER PANEL			
	10/40			
		Modular type 1U sliding fiber panel enclosure, shall accommodate (4) nos of MPO modules, for upto 48 duplex LC ports.		
		Modular type 4U sliding fiber panel enclosure, shall accommodate (24) nos of MPO modules, for upto 288 duplex LC ports.		
		The panel shall have min 450mm depth for adequate storage space for trunk cables.		

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Fiber panel shall have integrated front patch cord management trough and admin labeling window.	
Fiber Panels shall support real time monitoring of fiber links as per ISO 18598, ANSI/TIA 5048 and EN 50667 standards.	
Shall be made of powder coated steel with UL 94V-0 rating.	

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	MPO TRUNK C.	ABLE, OM4		
1	Specifications	Low Loss MPO-12/UPC to MPO-12/UPC, Pre- terminated, LSZH, Bend Insensitive OM4Trunk Cable compliant to ANSI/ICEA S-83- 596, Telcordia GR-409, IEC 60794-1, IEC 60793-2-10, TIA 492AAAD (OM4).MPO trunk cable shall be configured and available with 12F/24F/48F/96F trunk configurations as per design requirement.The offered MPO solution must support the given list of applications and SAN links as per RFP performance specifications.MPO should follow Method B enhanced wiring methodology for simple design installation.MPO connector shall have Max Insertion Loss of 0.20dB.Min Return loss of MPO shall be ≥ 27dB.Trunk cable shall support Tensile strength upto 650N.All OM4 trunk cables must have Aqua colored jacket as per TIA and ISO standards recommendation. Any non-standard color other than Aqua is not acceptable.Flame rating shall be NEC OFNR (ETL) suitable for data center installations.The cable must have the flame test compliance to IEC 60332-3, IEC 60754-2, IEC		
		61034-2, IEEE 383, UL 1666 and UL 1685 Cable must be EN50575 CPR rated as Dca or better.		

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	LC – LC Multimo	ode Duplex Uniboot Fiber Patch Cord		
1	Specifications	LC/UPC to LC/UPC, Multimode OM4 duplex Uniboot Patch Cord, bend insensitive Fiber 2.0mm patch cords, Aqua, compliant to ICEA- S-83-596 and Telcordia GR 409.		

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Low Smoke Zero Halogen (LSZH) compliant to IEC 60332-3, IEC 60754-2, IEC 61034-2, UL 1666, UL 1685	
Shall be strengthen with aramid yarns. Tensile rating should be 200N or better.	
Connector Optical Performance Insertion Loss, maximum: 0.15 dB Return Loss, minimum: 35.0 dB	

TECHNICAL SPECIFICATION FOR MPO SM FIBER COMPONENTS

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	PRE-TERMINA	TED MPO MODULES – SINGLEMODE OS2		
1	Specifications	MPO – LC 24F Cassette		
		The 24-fiber module shall have 12 pre- installed duplex LC adapters at the front routed to 2x12-fiber / 1x24-fiber Low loss SM MPO adapters at the back.		
		All MPO modules must support 'Method B' wiring pattern for ease of scalability. Same cassette should be used in both end of the link, without need of flipped or straight wiring management.		
		Dust caps on each port must be translucent to support VFL tests, without removing caps. Test light should be visible at the remote end, even with dust caps ON.		
		The cassettes shall be UL 1863 listed. MPO Modules must be compliant to ISO 18598, ANSI/TIA 5048 and ANSI/TIA 5017 standard specifications for real time monitoring and physical network security requirements.		
		Max Loss of a typical MPO 100m channel with 6 MPO connections shall not exceed 1.60dB. Documentary evidence to be provided.		
		Fiber type shall be G.657A2 complaint Low loss singlemode.		
		OEM shall have RCDD and DCDC certified technical manpower in India for technical support throughout the project implementation phase.		
		Cabling OEM shall have ISO 9001 & 14001 manufacturing facility in India.		

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	MPO TI	RUNK CABLE, SINGLEMODE		
1	Specifications	Low Loss MPO-12/APC to MPO-12/APC, Pre-		

WTL/KP/DC/23-24/012 dated 14/06/2023

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	,
terminated, LSZH, Bend	
Insensitive SM Trunk Cable	
compliant to ANSI/ICEA S-	
83-596, Telcordia GR-409,	
IEC 60794-1, and G.657A2.	
MPO trunk cable shall be	
configured and available	
with 12F/24F/48F trunk	
configurations as per design	
requirement.	
MPO connector shall have	
Max Insertion Loss of 0.35dB.	
Min Return loss of MPO shall	
be <u>></u> 65dB.	
Trunk cable shall support	
Tensile strength upto 650N.	
All SM trunk cables must	
have Yellow colored jacket	
as per TIA and ISO standards	
recommendation. Any non-	
standard color other than	
Yellow is not acceptable.	
Flame rating shall be NEC	
OFNR (ETL) suitable for data	
center installations.	
The cable must have the	
flame test compliance to IEC	
60332-3, IEC 60754-2, IEC	
61034-2, IEEE 383, UL 1666	
and UL 1685	
Cable must be EN50575 CPR	
rated as Dca or better.	

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	LC - LC	Singlemode Duplex Uniboot Fiber Patch Cord		
1	Specifications	LC/UPC to LC/UPC, Singlemode OS2 duplex Uniboot Patch Cord, bend insensitive Fiber 2.0mm patch cords, Yellow, compliant to G.657A2, ICEA-S-83-596 and Telcordia GR 409. Low Smoke Zero Halogen (LSZH) compliant to IEC 60332-3, IEC 60754-2, IEC 61034-2, UL 1666, UL 1685		
		Connector Optical Performance Insertion Loss, maximum: 0.25 dB Return Loss, minimum: 50.0 dB		

TECHNICAL SPECIFICATION FOR CAT6A UTP CABLING SYSTEMS

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	CAT 6A U/UTP LS	ZH Cable, Box of 305 mtr		

1	Specifications	CAT6A U/UTP 23 AWG Cable should be ETL	
		Verified to ANSI/TIA 568.2-D Category 6A	
		and ISO/IEC 11801 Class EA Specifications.	
		Cable shall be constructed with pair	
		separator as well as individual conductor	
		separator for superior ANEXT performance	
		under CAT6A channel.	
2	Electrical	Max DC Resistance: <7.61 Ohms/100m	
	properties	Max. Operating voltage: 80 V	
		Frequency: up to 550 Mhz	
		The cable shall have Low-Smoke, Zero	
		Halogen (LSZH) jacketing and must comply	
		with the following Fire Safety standards:	
		1) ISO/IEC 60332-3-22: Vertical Flame Spread	
		2) ISO/IEC 60754-2: Acidity	
		3) ISO/IEC 61034-2: Smoke Density	
		Cable shall be compliant to EN50575 CPR	
		Cable Euro Class and certified for Dca or	
		better standards.	
3	Certifications	Category 6A cable alongwith offered channel	
	and Test	components should be certified by Intertek	
	Reports	lab under 4 connector channel configuration	
		to the requirement of ANSI/TIA 568-C.2 for	
		long channel (100m) as well as short links	
		(<15m). Test Certificates to be provided with	
		bid.	
		CAT6A Cable must be certified for IEEE	
		802.3bt Type 4 transmission for remote	
		powering (4PPoE) upto 60 Deg C.	

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	Category 6A U/l	JTP Patch Panel, loaded		
1	Specifications	CAT6A UTP Patch Panel 24 port loaded, 1U shall be compliant to ANSI /TIA 568-C.2 CAT6A and ISO 11801 Class EA, with rear cable manager.		
		Panel must be certified by Intertek labs for 4 connector channel performance for 100m and 15m channel lengths and IEC 60603-7 plug performance. Certificates to be enclosed.		
		The panel must be compliant to ISO 18598, ANSI/TIA 5048 and ANSI/TIA 5017 standard specifications for real time monitoring and physical network security requirements.		
		Panel shall have plug retention force of 130N min.		
		Current Rating - 1.5 A @ 20 °C Dielectric Withstand Voltage, RMS - 1500 Vac @ 60 Hz Insulation Resistance, minimum - 500 MOhm		
		Modular unloaded type panel can be used with individual jacks, for low port count racks, without affecting overall functionality.		

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	Category 6A U/I	JTP Patch Cord		
1	Specifications	CAT6A U/UTP Patch Cord, 24 AWG solid construction, compliant to ANSI/TIA 568- CAT6A and IEEE 802.3bt 4PPoE. LSZH sheath with UL 1863 listing. Min Plug retention force: 130N or better Cordage OD: Shall not be more than 7.5mm Shall be constructed with pair as well as conductor separator.		
		Flame tested as per IEC 60332-3-22, EN 50575 Dca and IEC 61034-2.		
		Patch Cords shall have maximum dc Resistance:0.30 Ohm Safety voltage rating should be upto 300V.		

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
	Category 6A U/U	TP Modular Information Outlets		
1	Specifications	The CAT6A UTP 8-pin modular (RJ-45) jacks shall have Electrical performance guaranteed to meet or exceed the channel specifications of ISO/IEC 11801 Class EA and ANSI/TIA-568- C.2 Category 6A. The information outlet shall support IEEE 802.3bt (Type 4) and have a Current Rating of 1.5 A at 20°C.		
		Insulation Resistance, minimum: 500 MOhm. Shall have IEC 60603-7 certified plug performance. Intertek report to be enclosed.		
		Plug retention force, min: 130N Faceplate shall be available with 1 or 2 port configuration.		
		Shall be UL 94V-0 rated.		

Sn	Category	Technical Specification	Bidder's Response (Complied / Not Complied)	Reference Document / Datasheet, as applicable
1	OEM Qualification Criteria for Network Passive	Passive OEM offered must be registered in India for more than 10 years. Incorporation certificate to be submitted. OEM shall have ISO 9001:2015, 14001:2015, 45001:2018 certified manufacturing facility in		
	Components	India.		

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OEM shall have ISO 9000 certified design and	
development facility in India for min 10 years.	
OEM shall have successfully supplied similar	
solution in more than five (05) datacenters in	
India with more than 30 racks, in last 5 years.	
OEM shall have min 2 RCDD/DCDC certified	
manpower in India for design support and	
validation.	
All components for SM, MM fiber, copper	
cabling including real time monitoring	
hardware / software systems components, must	
be from any single OEM.	
The copper and fiber systems shall support real	
time documentation and monitoring of entire	
cabling channel as per ISO 18598, ANSI/TIA	
5048 and EN 50667 standards.	
All copper cables and trunk cords used inside	
the DC must be LSZH IEC 60332-3 (Flame test),	
IEC 61034-2 (Smoke density test), IEC 60754-2	
(toxic gas emission test) compliant and CPR	
rated as Dca or better as per EN50575 standard.	

L.15 IT Racks

Sn	Category	Technical Specification	Bidder's Response (Complied/ Not Complied)	Reference Document / Datasheet, as applicable
1	Racks	Racks manufactured out of steel sheet punched, formed, welded and powder coated.		
1.1		Standard for Racks configuration will be welded frame with side panel and vented top cover		
1.2		Rack should have front convex perforated door and perforated dual door at rear.		
1.3		Rack should have provision to mount racks on floor. It should be with castor & levelers.		
1.4		Racks should be 42U, 600 mm wide & 1200 mm depth. Should have adjustable mounting depth.		
1.5		Conforming to DIN 41494 or equivalent EIA /ISO / EN/CEA Standard.		
1.6		Rack should have numbered U positions.		
1.7		Powder coated finish with seven Tanks pre- treatment process meeting IS.		
1.8		Rack should have two vertical and one horizontal cable manager.		
1.9		Rack should have one heavy duty shelf.		
1.10		Rack should have one keyboard shelf with 715mm depth.		
1.11		Rack should have fan module mount provision on top cover with 04 fan housing unit.		
1.12		Rack should have two rack mount power distribution unit, 1Ph, 230V, 32A, 50/60Hz, Zero U standard with 20 X C13 & 4 X C19, 16A MCB X 2 Circuits - PDU Rating 7.3KVA / bottom feed- 3Mt/ Black / Inlet Plug Not Installed.		
1.13		Rack should have provision for cable entry / exit from both top & bottom.		

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1.14		Rack should have one packet of mounting hardware, Pack of 20.	
2		Racks should be from ISO 14000 & 27000 certified organization.	
2.1	OEM	Racks should be from ISO 45000 certified organization.	
2.2	Qualification	Rack PDU's should be UL listed.	
2.3	Criteria	OEM should be in operation in India for more than five (05) years.	
2.4		Racks & Rack Containment should be from same OEM.	

L.16 Building Management System

Sn	Category	Technical Specification	Bidder's Response (Complied/ Not Complied)	Reference Document / Datasheet, as applicable
1	BMS	An intelligent platform that simplifies daily build- ing monitoring in a comfortable way and implements a new user interface and workflows for efficiency.		
		The system design shall utilize the latest technology in "open" network architecture, either LONWORKS or BACNET with distributive intelligence and processing, and direct digital control.		
		The BMS system offered should be from the latest offerings and should be freely programmable management and automation stations for the full spectrum of today's building application services.		
		The Direct Digital Controller's (DDC`s) offered shall be intelligent type with self storage of data & expanded memory.		
		The system should integrate the following devicesfor suitable, relevant real time data.• Input power feeders from LT Panel• Precision AC's (PAC), Current & Future• Industrial Room AC• UPS, Current & Future• Diesel Generator, Current & Future• Fire Detection & Alarm• Access Control System• Water Leak Detection		
		Integrate third-party devices via OPC. Energy efficiency class "A" as per EN 15232.		
		All data servers, operator workspaces etc. for the building automation and control system must be compatible with the current, common 64-bit Windows operating system.		
		The building automation and control system must take care of recurring tasks to lower the operator's workload.		
		The management station must be based on a SCADA platform, which must be fully compliant with the BACnet B-AWS profile. It must enable the integration of any type of building equipment,		

such as HVAC and lighting	
such as HVAC and lighting.	
The software shall provide an online, context- sensitive help, including an index, glossary of terms, and the capability to search help via keyword or phrase.	
The building automation and control system must allow users to define, change, or delete predefined reactions as per their user privileges.	
The user interface must be able to support minimal three languages simultaneously in one system.	
The operator interface shall allow users to access the various system schematics and floor plans via a graphical penetration scheme, menu selection, point alarm association.	
The system must be designed for monitoring, optimization, and logging of all connected automation stations in real-time.	
User shall be able to add/delete/modify system graphics and state text for digital points, from standard user interface without the need of any external or specialized tools.	
The navigation through various graphic screens shall be optionally achieved through a hierarchical "tree" structure.	
Calendar programs must be able to be remotely created online to provide service personnel a high level of flexibility.	
Multiple users must be able to work concurrently on various workspaces on the building automation and control system for efficient and comprehensive work.	
Access protection with a minimum of four different rights must be assignable.	
There shall be no limit to the number of points that can be configured for remote notification of alarm conditions and no limit on the number of remote devices which can receive messages from the system.	
The building automation and control system must offer alarm filtering.	
The system must spontaneously (snapshot) generate predefined reports (real-time and historical data) to provide vital plant data at any time. These reports must be printable or exported to third-party spreadsheet software and as PDF file. The data must be editable in other programs (Microsoft Excel, or Microsoft Access) for further analysis.	
At least three different report templates must be available.	
The system must allow for creating specific report templates to meet individual report generation requirements, which also may include plant and	

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		trend graphics.	
		All operator interface functions must be available in clients running in a browser, installed client console, or Windows desktop app.	
		Users must be able to remotely operate and engineer plants regardless of location with the same user interface.	
		Management stations must match the BACnet Profile B-AWS (Advanced workstation) as per the BTL Listing and also specified in ANSI / ASHRE 135 guideline. It must also support the BACnet Life Safety Points and BACnet Life Safety Zones functionality.	
		Design, supply, installation, testing and commissioning of all hardware, software, controls wiring, containment, conduiting and power to the equipment.	
		The Building Automation and Control System shall be installed and commissioned by trained engineers.	
		The system integrator shall have a service facility, staffed with qualified service personnel, capable of providing instructions and routine emergency maintenance service for networked control systems.	
2	OEM Qualification Criteria	The OEM must be engaged in the manufacture of Building Automation systems, and must have been so for a minimum of ten (10) years.	
		The system shall have proper listing and/or approval from Underwriters Laboratories Inc (UL) and Factory Mutual (FM).	
		OEM should be ISO 9001, ISO 14001, ISO : 45001 & ISO 27001 Certified.	
		OEM should have Regional office at Kolkata.	

Authorized Signatory (Signature In full): _____

Name and title of Signatory: _____

Stamp of the Company:	

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SECTION - M

MANUFACTURER'S AUTHORIZATION FORM

Date:

To Webel Technology Limited Plot-5, Block-BP, Sector-V Salt Lake <u>Kolkata-700 091</u>

Ref: Enquiry Notice No.: WTL/KP/DC/23-24/012 dated 14.06.2023

WHEREAS and	who 1 hav 		official production hereby located	facilities at authorize
(ho	ereinafter,	_ the ''Bidd		bid of the following
Products produced by us, for the Supply Requirements assoc	iated with	the above	Invitation for B	ids.
1 2				
When resold by, these product the date of final acceptance of the system by the customer.	cts are sub	ject to ons	site comprehen	sive warranty from
We assure you that in the event of Provider in respect of our standard Warranty Terms we woul alternate arrangements.				
We also confirm that is our hence provide maintenance and upgrade support for our pro		l service p	orovider/system	ı integrator and can
We also confirm that the products quoted are on our current from the day of this letter. We assure availability of spares for				
We also confirm that the material will be delivered within six	weeks fro	m the date	e of placement o	of confirmed order.
We also confirm that adequate spare product will be kept ava	ailable witl	h the SI fo	r 5 years.	
Name In the capacity of				
Signed				
Duly authorized to sign the authorization for and on behalf of				
Dated on day of 2023				
Note : This letter of authority must be on the letterhead of the signatory.	Manufactu	rer and d	uly signed by a	n authorized

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SECTION - N

DOCUMENTS TO BE SUBMITTED

S1. No.	Criteria	Document Submitted	Reference Document
1	MAKE, MODEL & PART NUMBER (Section – K)	Yes/No	
2	TECHNICAL SPECIFICATION WITH COMPLIANCE STATEMENT (Section – L)	Yes/No	
3	MANUFACTURER AUTHORISATION FORM (Section – M)	Yes/No	
4	NIT DECLARATION (Section – Q)	Yes/No	
5	TECHNICAL CAPABILITY OF BIDDER (Section – F)	Yes/No	
6	FINANCIAL CAPABILITY OF BIDDER (Section – G)	Yes/No	
7	BIDDER'S DETAILS (Section – H)	Yes/No	
8	LIST OF CLIENTS OF SIMILAR ORDER (Section – I)	Yes/No	
9	BID Form (Section – J)	Yes/No	

Authorized Signatory (Signature In full): _____

Name and title of Signatory: _____

Stamp of the Company: _____

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SECTION - O

GUIDANCE FOR E-TENDERING

Instructions / Guidelines for electronic submission of the tenders have been annexed for assisting the Bidders to participate in e-Tendering.

a. Registration of Bidder:

Any Bidder willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System through logging on to **https://wbtenders.gov.in**. The Bidder is to click on the link for e-Tendering site as given on the web portal.

b. Digital Signature Certificate (DSC):

Each Bidder is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders from the approved service provider of the National Informatics Centre (NIC) on payment of requisite

amount. Details are available at the Web Site stated above. DSC is given as a USB e-Token.

The Bidder can search & download N.I.T. & BOQ electronically from computer once he logs on to the website mentioned above using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

c. Multiple Participation:

A prospective bidder shall be allowed to participate in the job as per qualifying criteria. If, found to be applied severally in a single job all the applications will be rejected.

d. Submission of Tenders:

Tenders are to be submitted through online to the website stated above in two folders at a time, one in Techno Commercial Proposal & the other is Financial Proposal before the prescribed date & time using the Digital Signature Certificate (DSC). The documents are to be uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non-readable formats)

The proposal should contain copies of the following in two covers (folders).

Techno Commercial Cover:

Technical Document1

- 1. Bid Form as per format (Section J)
- 2. Required documents

Technical Document2

- 1. Copy of N I T duly stamped & signed
- 2. Declaration of Eligibility Criteria, Section C
- 3. Technical Compliance
- 4. Detailed Technical Specification, Section L
- 5. Make, Model & Part Number, Section K
- 6. Manufacturer Authorization/OEM Declaration, Section M

Financial Cover:

BOQ (Bill of Quantity) will be downloaded and same will be uploaded with quoted rates. While uploading BOQ file name shall remain unchanged. Absence of this document shall lead to summary rejection of the bid.

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<u>NON-STATUTARY COVER (MY SPACE) CONTAIN FOLLOWING DOCUMENT:</u> (In each folder, scanned copy will be uploaded with single file having multiple pages)

Sl. No.	Category Name	Sub Category Name	Sub Category Description
A	CERTIFICATES	A1. CERTIFICATES	 GST Certificate, Trade License PAN ISO (If Available)
В	COMPANY DETAILS	B1. COMPANY DETAILS 1	Bidder's Details / Company Details
		B2. COMPANY DETAILS 2	 Technical Capability of the Bidder as per format (Section – F)
С	CREDENTIAL	CREDENTIAL 1	Bidder's Credentials
D	DECLARATION	DECLARATION 1	Other Declaration
		DECLARATION 2	Bidder's Details as per format
		DECLARATION 3	Non Black Listed Declaration
		DECLARATION 4	 Bid Form as per Section – J NIT Declaration
E	FINANCIAL INFO	P/L & BALANCE SHEET 2019-2020	P/L & BALANCE SHEET 2019-2020
		P/L & BALANCE SHEET 2020-2021	P/L & BALANCE SHEET 2020-2021
		P/L & BALANCE SHEET 2021-2022	P/L & BALANCE SHEET 2021-2022

Authorized Signatory (Signature In full): ______

Name and title of Signatory: _____

Stamp of Company: _____

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SECTION - P

NIT DECLARATION FOR BIDDER

(OEM's are requested to furnish the Format given in this section, filling the entire Blank and to be submitted on OEM's Letter Head)

To Webel Technology Limited Plot – 5, Block – BP, Sector - V, Salt Lake City, Kolkata – 700091.

<u>Sub: Supply, installation, testing, commissioning (SITC) of physical infrastructure of a high</u> <u>performance datacenter with one year warranty + four years comprehensive annual</u> <u>maintenance contract (CAMC) for Kolkata Police.</u>

Dear Sir,

We the undersigned OEM/(s) declare that we have read and examined in details the specifications and other documents of the subject Tender No. WTL/KP/DC/23-24/012 dated 14.06.2023 for Supply, installation, testing, commissioning (SITC) of physical infrastructure of a high performance datacenter with one year warranty + four years comprehensive annual maintenance contract (CAMC) for Kolkata Police published by Webel Technology Limited in e-Tender website.

We further declare that we have agreed and accepted all the clauses / sub-clauses / formats / terms & conditions other requirements related to the said tender and we will abide by the same as mentioned in the tender document while executing the said tender though our partner and comply the delivery schedule and maintain the Service Level Agreement during the entire warranty period as per tender terms.

Thanking you, we remain

Yours faithfully

Signature

.....

Name in full

. Designation

.....

Company Stamp

Dated, thisday of2023

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<u>SECTION – Q</u>

DATE AND TIME SCHEDULE

Sl. No.	Particulars	Date & Time
1	Date of uploading of N.I.T. & other Documents (online) (Publishing Date)	14.06.2023
2	Documents download/sale start date (Online)	14.06.2023
3	Last Date and time of sending the queries (Offline)	21.06.2023 & 15.00 hrs.
4	Pre Bid Meeting (On Line)	22.06.2023 & 12.00 hrs.
5	Corrigendum, if any will be published (On Line)	-
6	Bid Submission start date & time (On line)	04.07.2023 & 14.00 hrs.
7	Last Date & time of submission of Earnest Money Deposit & submission of remittance details	Before Uploading of Tender
8	Last Date & time of submission of Tender Fee & submission of remittance details	Before Uploading of Tender
9	Bid Submission closing date & time (On line)	11.07.2023 & 13.00 hrs.
10	Bid opening date & time for Technical Proposals (On line)	13.07.2023 & 12.00 hrs.
11	Date of uploading the final list of Technically Qualified Bidder (online) after disposal of appeals, if any	-
12	Date for opening of Financial Bid (Online)	-

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<u>SECTION – R</u>

FORMAT FOR PRE-BID MEETING QUERY

(Tender no. WTL/KP/DC/23-24/012)

Name of the Bidder:

Queries

S1. No.	Section No.	Clause No.	Page No.	Queries

Note: The filled form to be submitted in XLS & PDF Format. There is a cut off date for receiving of queries before Pre Bid Meeting. Queries received after the cutoff period will not be accepted. The Purchaser reserves the right to respond all queries over e-mail.

Authorized Signatory (Signature In full): _____

Name and title of Signatory: _____

Company Rubber Stamp: ____

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<u>SECTION – S</u>

PROFORMA FOR PERFORMANCE BANK GUARANTEE

(On non-judicial stamp paper of appropriate value to be purchased in the name of executing Bank)

PROFORMA OF BANK GUARANTEE FOR SECURITY DEPOSIT –CUM-PRFORMANCE GUARANTEE

Ref Bank Guarantee no.....

Date.....

PROFORMA OF BG FOR SECURITY DEPOSIT Undertaking formats

KNOW ALL MEN BY THESE PRESENTS that in consideration of WEBEL TECHNOLOGY LIMTED, a Government of West Bengal Undertaking incorporated under the Companies Act, 1956 having its Registered office at Webel Bhavan, Block EP&GP, Sector V, Kolkata-700 091 (hereinafter called "The Purchaser") having agreed to accept from _____ _____(hereinafter called "The Contractor") Having its Head Office at _____, a Bank guarantee for Rs. _____ _ in lieu of Cash Security Deposit for the due fulfillment by the Contractor of the terms & conditions of the Work Order No. ____ issued the Purchaser dated by for _____(hereinafter called "the said work order _dated_____)". We ______ (Name & detailed address of the branch) (hereinafter called "the Guarantor") do hereby undertake to indemnify and keep indemnified the Purchaser to the extent of Rs._____ (Rupees _____ _ ____) only against any loss or damage caused to or suffered by the Purchaser by reason of any breach by the Contractor of any of the terms and conditions contained in the said Work Order No. _____dated_____of which breach the opinion of the Purchaser shall be final and conclusive.

(2) AND WE, ______DO HEREBY Guarantee and undertake to pay forthwith on demand to the Purchaser such sum not exceeding the said sum of _____Rupees_____) only as may be specified in such demand, in the event of the Contractor failing or neglecting to execute fully efficiently and satisfactorily the order for ______ Work Order no. , dated

(3) WE _______ further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said order as laid down in the said Work Order No. ______ dated _______ including the warranty obligations and that it shall continue to be enforceable till all the dues of the Purchaser under or by virtue of the said Work Order No. ______ dated ______ have been fully paid and its claims satisfied or is charged or till the Purchaser or its authorized representative certified that the terms and conditions of the said Work Order No. ______ dated ______ have been fully paid and its claims satisfied or is charged or till the Purchaser or and accordingly discharged the guarantee.

(4) We _______ the Guarantor undertake to extend the validity of Bank Guarantee at the request of the contractor for further period of periods from time to time beyond its present validity period failing which we shall pay the Purchaser the amount of Guarantee.

(5) The liability under the Guarantee is restricted to Rs. ______ (Rupees _______) only and will expire on _______ and unless a claim in writing is presented to us or an action or suit to enforce the claim is filled against us within 6 months from ______ all your rights will be forfeited and we shall be relieved of and discharged from all our liabilities (thereinafter)

(6) The Guarantee herein contained shall not be determined or affected by liquidation or winding up or insolvency or closer of the Contractor.

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(7) The executants has the power to issue this guarantee on behalf of Guarantor and holds full and valid power of Attorney granted in his favour by the Guarantor authorizing him to execute the Guarantee.

(8) Notwithstanding anything contained herein above, our liability under this guarantee is restricted to Rs.

 (Rupees
) only and our guarantee shall remain in force up to

 and unless a demand or claim under the guarantee is made on us in writing on or before

 all your rights under the guarantee shall be forfeited and we shall be relieved and

 discharged from all liabilities there under.

WE, ______ lastly undertake not to revoke this guarantee during the currency except with the previous consent of the Purchaser in writing. In witness whereof we _____ have set and subscribed our hand on this ______ day of

SIGNED, SEALED AND DELIVERED

(Stamp of the executants)

WITNESS

1) _____

2)

(Name & address in full with Rubber Stamp)

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INSTRUCTIONS FOR FURNISHING BANK GUARANTEE

- 1. Bank Guarantee (B.G.) for Advance payment, Mobilization Advance, B.G. for security Depositcum-Performance Guarantee, Earnest Money should be executed on the Non- Judicial Stamp paper of the applicable value and to be purchased in the name of the Bank.
- 2. The Executor (Bank authorities) may mention the Power of Attorney No. and date of execution in his/her favour with authorization to sign the documents. The Power of Attorney is to be witnessed by two persons mentioning their full name and address.
- 3. The B.G. should be executed by a Nationalized Bank/ Scheduled Commercial Bank preferably on a branch located in Kolkata. B.G. from Co-operative Bank / Rural Banks is not acceptable.
- 4. A Confirmation Letter of the concerned Bank must be furnished as a proof of genuineness of the Guarantee issued by them.
- 5. Any B.G. if executed on Non-Judicial Stamp paper after 6 (six) months of the purchase of such stamp shall be treated as Non-valid.
- 6. Each page of the B.G. must bear signature and seal of the Bank and B.G. Number.
- 7. The content of the B.G. shall be strictly as Proforma prescribed by WTL in line with Purchase Order /LOI/ Work Order etc. and must contain all factual details.
- 8. Any correction, deletion etc. in the B.G. should be authenticated by the Bank Officials signing the B.G.
- 9. In case of extension of a Contract the validity of the B.G. must be extended accordingly.
- 10. B.G. must be furnished within the stipulated period as mentioned in Purchase Order / LOI / Work Order etc.
- 11. Issuing Bank / The Bidder are requested to mention the Purchase Order / Contract / Work Order reference along with the B.G. No. For making any future queries to WTL.