



NIT No.: IIT(MM)/CITC/1/1A/326/SS/2025-26

Date – 06/03/2026

PREBID REPORT

The online meeting for Pre-bid discussion and presentation was held via Google Meet on Feb 27, 2026 @ 12:00 Noon at IIT Indore for Procurement of Wall Mounted Racks and Accessories, Qty-Mentioned in the tender through GeM Custom Bidding, Bid No. GEM/2026/B/7258298.

The report of the meeting is as below:-

Sl. No.	Reference of Clause No. of the Tender Document	Query / Clarification / Deviation Sought	Clarification / Response from IIT Indore
1	SECTION-I Essential Qualification Criteria- Part Sl. No. 6. Work Experience	You have mentioned bidders having supplied to Govt./ semi Govt. Institutes are eligible. Request to consider bidders who have supply orders of leading industries/ Corporate sector.	No Change, the qualifications would be as per the NIT/Tender Document
2	SECTION-II Essential Qualification Criteria- Part I Sl. No. 6. Work Experience Similar work	Since case is not having CAT6 laying, it should not be considered on eligibility criteria	No Change, the qualifications would be as per the NIT/Tender Document
3	Section 1 - GENERAL TERMS AND CONDITIONS - Point no. 4 Payment:	We request you to please amend the payment terms clause as – (i) 80% of the cost of Goods/Services will be paid after Satisfactory delivery of the material. (ii) 10% of the cost of Goods/Service will be paid after Satisfactory Installation, Commissioning, Testing & Training / completion of the service. (iii) 10% balance payment will be paid after the submission of performance bank guarantee.	No Change, the qualifications would be as per the NIT/Tender Document
4	Section 1 - GENERAL TERMS AND CONDITIONS - Point no. 22	22.General Instructions - a) Site Preparation: All necessary site support required for installation activities at height, including but not limited to: Ladder/Scaffolding/Boom Lift/Scissor Lift/Any other civil/structural access arrangements shall be arranged and provided by the customer at site.	No, All the necessary Tools and Accessories Has to be arranged by the Bidder.
5	Section 1 - GENERAL TERMS AND CONDITIONS - Point no.	Any civil work, including but not limited to wall cutting, core cutting, trenching, road cutting, grouting, plastering, patch work, etc. Any digging	No, It is part of scope and would be the responsibility of the bidder.

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	22	/ excavation work required for cable laying or infrastructure installation shall be under the customer's scope and responsibility.	
6	Section 1 - GENERAL TERMS AND CONDITIONS - Point no. 8 - Pre dispatch Inspection (If required/asked)	If inspection is required, we request you to please confirm: • Number of personnel who will be attending the inspection • Duration of inspection • Location of inspection This information is required to accurately account for associated expenses such as travel, accommodation, and logistics in our commercial offer. Kindly confirm to enable appropriate costing and submission	If required, same would be intimated prior to the inspection.

In addition to above the following's points are added in the tender :-

Scope of Work (SOW) & Bill of Quantities (BOQ) for Rack Replacement & Installation

1. Objective

The objective of this project is to replace existing oversized, floor-mounted racks with right-sized wall-mounted and compact floor-standing racks to maximize available space in network rooms. Improve airflow and cooling efficiency. Ensure professional-grade structured cabling Enhance accessibility for operations and maintenance. Standardize the rack layout and documentation across all sites. Minimize downtime during the transition by careful planning and phased execution.

2. Existing Site Conditions

- Current racks are large, oversized, floor-mounted, and take excessive floor space, making maintenance and troubleshooting difficult, further the racks are not closed cabinets, these are open rack solutions causing the racks to get dirty by dust and dirt, thereby reducing their life.
- There are excess cables coming out of the floor race ways, also contributing in consumption of the floor space causing maintenance and troubleshooting even more difficult.
- Network cables are long compared to the rack size hence are tangled and are poorly managed, making troubleshooting difficult and increasing the clutter inside the racks.
- PDUs are installed but not optimally utilized, the active devices are powered externally.
- Several Ethernet cables are directly terminated into switches instead through patch panels.
- Some fiber optic connections are unmanaged, fiber cables are poorly routed causing the clutter inside the racks
- Due to poor cabling, devices are difficult to replace/maintain and troubleshoot without service disruption.

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3. Scope of Work

Pre-Installation Survey & Planning

- Conduct joint walkthrough with IIT Indore, IT Team to confirm rack locations. Measure room dimensions, wall strength, and floor load capacity.
- Assess power availability: number of sockets, UPS backup, grounding points.
- Inspect existing cabling routes (ceiling trays, conduits, ducts).
- Identify equipment list (switches, routers, patch panels, cable managers, PDUs, LIUs etc.).
- Document port mapping, active connections, Patch panel port maps, numbering and tags.
- Document ports in LIUs, fiber maps.
- Prepare rack elevation diagrams, cable routing plans, downtime plan, and rollback strategy, in confirmation to the IIT Indore, IT Team.
- Bidder shall assess wall strength and use appropriate fasteners. Any rack failure due to improper mounting shall be Bidder's responsibility.
- Bidder shall insure that it has all the necessary tool that are required to accomplish the work, arrangement of any tools/ accessories required if there is any would be the responsibility of the Bidder.

Dismantling & Removal

- Power down devices in a controlled manner after confirmation from the IT Team IIT Indore.
- Disconnect and label all cables before removal. Tag cables with source & destination IDs for reconnection.
- Remove obsolete/damaged cabling and segregate reusable items.
- Unmount PDUs, patch panels, LIUs and devices carefully. Dismantle old racks and transport them out safely.

Supply & Installation of New Cabinets

- Supply installation of wall-mounted cabinets (6U, 9U, 12U, 15U, 18U), using wall mount only further the rack size will depend / vary based on the site condition or as instructed by the IT Team, IIT Indore.
- Install racks with load-bearing anchors or level feet as required by the site condition.
- Connect racks to building earth point using earth kits.
- Install ventilation (roof fans, perforated doors) to ensure air flow.
- Provide / install brush panels/grommets for cable entry protection. Install locking front/rear doors for security. Verify stability and alignment after installation.
- The scope also includes any civil work involved in the Installation if there is any.

Equipment & Cable Management

There are excess cables coming from the floor raceways in the network shaft. Before proceeding towards re-routing the cables in patch panels, it needs to be ensured that the excess UTP cables / fiber cables need to be cut at sufficient length. The cable then

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needs to be routed with covered raceways / tray up to the rack height or bottom depending on the cable entry locations.

Unless/ otherwise stated or instructed the cables coming from the floor needed to be routed from bottom or the rack and cable coming from above needs to be routed from the top.

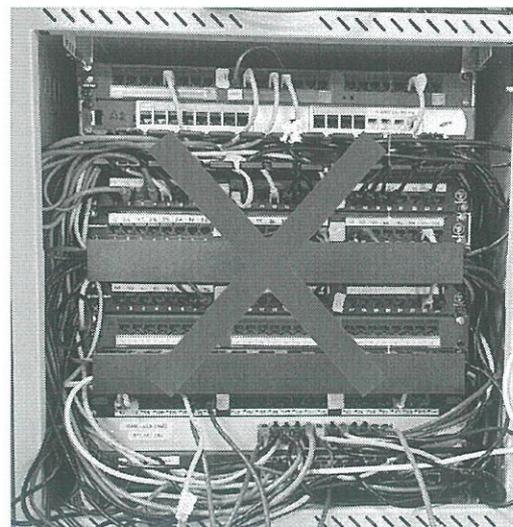
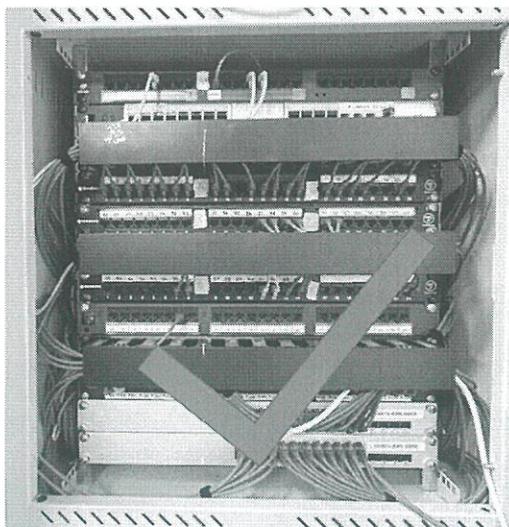
However, not strict but mount heavy devices/ PDUs at bottom, Fiber LIUs at the top, switches/routers at eye-level and patch panels above/below switches and if required cable managers in between. Install horizontal and vertical cable managers as required. Dress cables with Velcro ties, avoid Velcro tapes and plastic ties. Try to maintain 90° bend radius and above for copper and fiber cables. Route power separately from data cables.

Re-punch all Ethernet cables into patch panels. Each module of the patch panel needs to be installed in such a way that it ensures the minimum cable routing, in the rack through patch cord. Installation of the patch panel should be such that smaller patch cord (0.5ft, 1ft, 0.5m etc.) should be sufficient to patch the port with switch.

The patch cords and patch panels need to install such that the rack view is free from all clutter and should allow easy installation and removal of cables for operations and maintenance. Resplice and terminate fiber cables into LIUs with SC/LC adapters.

The devices are to placed in such a manner that the minimum length UTP patch cord is used to connect the switch and the patch panel. The recommended sizes for patch cords are 0.3/0.25m or 0.5ft/0.15m. Patch cord of length 1m and above should be avoided to maximum extent only in unavoidable cases the patch cord of length 1m or above should be used.

Label all ports and cables using standardized scheme, used prior to the replacement of the rack.



Power & UPS Integration

- Install rackmount PDUs (6–8 sockets) per rack. Including both type of socket 5 Amps and 16 Amps.
- Connect PDUs to UPS ensuring balanced load distribution.
- Perform earthing and surge protection checks for racks installed.

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Testing & Validation

- Perform Cat6 continuity & performance testing.
- Certify copper cabling with LAN tester (Ensure the Punching is done correctly and every pin is working correctly).
- Test fiber using OTDR/Power Meter/VFL etc. .
- Validate switch-to-patch panel mapping. Check whether the patch cords are mapped correctly.
- Conduct power-on self-test for all devices. Ensure the network is working correctly before and after shifting/replacement of the racks.
- Check UPS runtime load with connected devices.
- Document all test reports, and prepare a consolidated test report for the rack after fresh installations, documenting each part correctly.
- All copper links shall be tested using calibrated Fluke or equivalent testers. Soft copy test reports has to be submitted.

Documentation & Handover

- Deliver updated rack elevation diagrams, cable maps, and patching schemes. (As per the Annexure I)
- Provide device inventory with serial numbers and positions. (As per annexure II)
- Submit Cat6 & fiber test reports.
- Share before & after photos of racks.
- Conduct training/demo for IT staff.
- H. Post-Installation Cleanup
- Remove old cables, packaging, and debris.
- Restore site to clean conditions.
- Confirm environmentally safe disposal of e-waste.
- Fully installed racks (wall-mounted/floor-standing).
- All equipment remounted and operational.
- Neatly dressed and labeled cabling.
- Power distribution verified.
- Complete documentation of the Network about installed items and accessories.
- Minimum 1-year workmanship warranty.

Note: The Installation of the racks will include all but not limited to the Scope of Work mentioned above.

A. Quality Standards

- All the racks should conform to the standards under stringent ISO 9001 | ISO 14001 | ISO 27001 | ISO 45001 Manufacturing & Quality management system to ensure highest quality product.
- All structured cabling components (Cat-6 UTP cables, patch panels, I/O, patch cords) shall comply with TEC Generic Requirement for Structured Cabling Systems

(TEC/GR/TX/SCS-01/01) or its equivalent along with relevant ANSI/TIA-568 & ISO/IEC 11801 standards. Wall mounted racks shall comply with relevant EIA-310-D standards.

- Replacement timeline for defective items would be 7 days.
- No substandard equivalent substitution is allowed.

B. Technical Specifications:-

1. Racks

A. GENERAL TECHNICAL SPECIFICATION

SN	Parameter	Specifications
1	Size	600W x 500D OR 600D
2	Form factor	6U, 9U, 15U,18U/17U
3	Construction	Clear 'U' usable space, fan or extra cables should not occupy usable space
4	Basic Frame	A riveted metal framework consisting of 2 end plates (top and bottom) and 2 fix side panels
5	Assembly	Assembled
6	Top & Bottom Cover	Top and bottom cover with precut cable entries (upper and lower - 300x50mm Centered in width) which can be knocked with a mallet. Cable entries can be equipped with the brush supplied with the cabinet. 2 Fans provision at the top
7	Front Door	The door is made of a flat colourless transparent glass of 4mm thick with screen- printing of charcoal grey RAL 7016 on the vertical edges and is fitted with locking bolt. The door is removable and reversible
8	Rear side	Wall Mounting brackets
9	19" Mounting Angle	Four 19" uprights are perforated with 9.5 x 9.5mm square holes
10	Std. Equipment Mounting	19" uprights with dual marking of the Us and can be adjusted in depth by 25mm steps. The 19" uprights are perforated with 9.5 x 9.5mm square holes
11	Static Load	Permissible load: 4 kg/U (i.e. 60 kg for a 15U cabinet)
12	Standard Finish	Epoxy polyester paint applied by electrostatic dusting with 60-80 micron thickness
13	Colour	All components- RAL 7035 in Pastal fine texture/ All components- RAL 9005 in Black structure
14	Accessories	Horizontal power distribution unit, Metal Cable manager, Hardware packet and Cantilever Shelf
15	Equipment cooling	2 Fan Mount provision on top cover
16	Rack Standards	IEC 60529 EN 60529, IEC 62262 EN 62262, DIN 41494, EIA 310, IEC 60297
17	Degree of Protection	IP20 according to IEC EN 60529, IK08 according to IEC EN 62262
18	Warranty	One year
19		Earth cable.
20	Shelf	1.2 mm CRCA sheet steel folded. Front mounted vented
21		cantilever type. Duly powder coated RAL 9002 (Grey white Structure) finish.
22	Cooling Fans	Fan's -230V AC - 90 CFM ,38 dBA 2650RPM
23	Power box	Power Distribution Unit - 05/15 Amp – 5 Socket
24	Height (mm)	371.3
25	Width (mm)	600
26	Depth (mm)	500/600
27	Approx.Net Wt (kg)	15
28	CRCA 'D' Grade thickness (mm)	1.2

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29	Powder Colour for Cabinet	RAL 9017
30	Powder Colour for Front Metal Band	RAL 7014 -
31	Glass	4mm Toughened Tinted Glass Door
32	Gasket	Injected one piece polyurethane gasket on frame

B. STANDARD ACCESSORIES for RACKS (COMMON)

Sl. No.	Item	Specification
1	Cable Manager	1U closed type
2	Hardware Kit	Cage nuts, bolts & washers
3	Fan Tray	Replaceable, industrial grade
4	PDU	Internal mounting with earthing
5	Keys	Minimum 2 keys per rack

2. IO/RJ45 TECHNICAL SPECIFICATION

Sl. No.	Parameter	Specification (PSU-Compliant)
1	Applicable Standards	Shall meet or exceed ANSI/TIA-568.2-D, ISO/IEC 11801, EN 50173 (latest revisions)
2	Category	Category 6 (Cat6)
3	Type of Information Outlet	U/UTP (Unshielded)
4	Connector Type	RJ45 (8P8C)
5	Backward Compatibility	RJ45 jack shall accept RJ11 (4-contact) plugs without permanent damage to contacts
6	Form Factor	Keystone / modular type compatible with standard faceplates and patch panels
7	Housing Material	High-impact, flame-retardant thermoplastic, UL 94 V-0 rated or equivalent
8	Dust Protection	Integrated transparent / translucent shutter to prevent dust ingress when not in use
9	Termination Type	Tool-based IDC or certified tool-less termination mechanism (OEM defined)
10	Wire Compatibility	22 to 26 AWG, solid or stranded copper conductors
11	Wiring Scheme	Universal color-coded labels for T568A and T568B
12	Re-termination Capability	Minimum 3 re-terminations without degradation of electrical performance
13	Frequency Rating	Up to 250 MHz (Cat6)
14	Electrical Performance Parameters	NEXT, PSNEXT, FEXT, ELFEXT, PSELFEXT, Return Loss
15	Performance Compliance	Shall meet Cat6 component-level limits as per ANSI/TIA-568.2-D
16	Performance Verification	OEM compliance declaration / test summary to be submitted on demand
17	Contact Material	Phosphor bronze or equivalent

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18	Contact Plating	50 μ " Gold/100 μ " Nickel
19	Contact Resistance	\leq 20 milliohms (m Ω)
20	Insulation Resistance	\geq 500 M Ω @ 100 V DC
21	PoE Compatibility	Rated for IEEE 802.3af, 802.3at (PoE+), and 802.3bt (PoE++)
22	PoE Application	Suitable for high-power devices such as Wi-Fi APs, IP cameras, and access switches
23	Thermal Stability	Designed to prevent contact deformation under sustained PoE++ load
24	Operating Life	Minimum 1,000 insertion cycles
25	Operating Temperature	0°C to +60°C
26	Storage Temperature	-20°C to +70°C
27	Humidity	Up to 95% RH, non-condensing
28	Certification	UL / ETL Listed or Recognized or equivalent third-party certification
29	Traceability	Product shall have clear brand / category identification
30	Documentation	OEM datasheet and compliance statement mandatory
31	Acceptance Criteria	Visual inspection, dimensional compliance, and document verification at receipt

3. CAT6 PATCH CORD TECHNICAL SPECIFICATION

Sl. No.	Parameter	Specification (PSU-Compliant)
1	Applicable Standards	Factory-terminated Cat-6 patch cord shall comply with ANSI/TIA-568.2-D/ANSI/TIA/EIA-568 C.2, ISO/IEC 11801, EN 50173 (latest revisions), ISO/IEC 60603-7
2	Cable Category	Category 6 (Cat-6)
3	Cable Type	U/UTP (Unshielded Twisted Pair)
4	Construction Type	Factory terminated patch cord assembly (no field termination)
5	Conductor Count	8 conductors (4 twisted pairs)
6	Conductor Material	Stranded copper
7	Conductor Construction	Stranded copper conductors (flexible, patch-cord grade)
8	Conductor Size	24–26 AWG stranded (patch-cord compliant) with outside diameter of 6+2
9	Conductor Insulation	Polyolefin / polyethylene-based insulation suitable for flexible patch cords
10	Outer Jacket Material	LSZH (Low Smoke Zero Halogen)
11	Jacket Colour	Grey/Blue
12	Connector Type	RJ45 (8P8C) modular plug on both ends
13	Connector Standard	Connectors shall conform to IEC 60603-7 and ANSI/TIA-568.2-D
14	Connector Termination	Factory-crimped / factory-molded termination using OEM-approved tooling
15	Strain Relief	Integrated molded strain-relief boot at both ends
16	Wiring Scheme	T568A or T568B, straight-through configuration

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17	Backward Compatibility	RJ45 plug shall support RJ11 mating without damage
18	Frequency Rating	Up to 250 MHz
19	Data Transmission Capability	Suitable for 10BASE-T, 100BASE-TX, 1000BASE-T, and 10GBASE-T (up to 55 m channel length)
20	Electrical Performance	NEXT, PSNEXT, FEXT, ELFEXT, PSELFEXT, Return Loss as per Cat-6 limits
21	Performance Compliance	Patch cord shall meet component and channel requirements of ANSI/TIA-568.2-D
22	DC Resistance	Compliant with Cat-6 patch-cord limits as per ANSI/TIA-568.2-D
23	Contact Material	Phosphor bronze or equivalent
24	Contact Plating	Minimum 30 µin gold over ≥50 µin nickel
25	Contact Resistance	≤ 20 mΩ
26	Insulation Resistance	≥ 500 MΩ @ 100 V DC
	Characteristic impedance from 1 to 250 MHz	100 Ω ± 15%
27	PoE Compatibility	Rated for IEEE 802.3af, 802.3at (PoE+), and 802.3bt (PoE++)
28	PoE Application	Suitable for Wi-Fi APs, IP cameras, VoIP phones, and PoE switches
29	Operating Temperature	-20°C to +60°C
30	Storage Temperature	-20°C to +60°C
31	Operating Life	Minimum 1,000 insertion cycles
32	Standard Lengths	as specified in BOQ
33	Marking	Manufacturer name, category, length, and certification marking on jacket
34	Certification	UL / ETL / Intertek / GHMT / Delta / 3P or equivalent third-party certification
35	Factory Testing	100% factory tested for wire-map, continuity, and shorts
36	Documentation	OEM datasheet and certificate of conformity to be submitted
37	Acceptance Criteria	Visual inspection, length verification, and document compliance
38	Boot Type	Transparent Plug with anti-slag slip on boots
	Bending Radius	4X Cable Diameter

4. Patch Panel

SN	Parameter	Specifications
1	Standards and Approvals	Must comply with ANSI/TIA-568-C.2, ISO/IEC 11801, and EN 50173 Category 6 requirements
2	Material of patch panel	a heavy-duty Cold Rolled Steel (CRS) frame (typically 1.5mm thickness) with a powder-coated finish for durability
3	Height of patch panel	1U
4	Type of Panel	Cat 6 U/UTP
5	No. of ports (RJ 45)	24 Ports Loaded with Cat 6 I/O jacks
6	Dust protection for information outlet	Each jack for the jack panel must provide a Cap on jack panel or Shutter on I/O to avoid dust and contaminants entering the jack & for 100% dust free environment.

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7	Labels & Identification	Ensure the panel has writable or slide-in label fields above each port
8	General Characteristics	Should have self-adhesive, clear label holders (transparent plastic window type) and white designation labels with the panel, with optional color labels / icons.
9		Each port / jack on the panel should be individually removable on field from the panel.
10		Port numbering is provided on the front and rear of the panel
11		Jack Panel shall be RoHS Compliant, should be certified by UL.
12		The panels automatically earth each connector
13	Mounting	Designed for standard 19-inch racks and cabinets
14	Jack Contacts	50-micron gold plating over nickel
15	plug insertion durability	minimum 750 mating cycles
16	Wire Compatibility	Must support 22 to 26 AWG solid or stranded copper wires
17	Cable Management Bar	Should be supplied with metallic integrated rear cable management shelf as for cable strain relief and neat cable dressing.
18	Wiring Scheme	Clearly printed color-coding for both T568A and T568B wiring standards.
19	Performance characteristics to be provided for CAT6 @ 250 MHz	The information outlet NEXT, PSNEXT, FEXT, ELFEXT, PSELFEXT and return loss should be verified
20	Wire Compatibility	Must support 22 to 26 AWG solid or stranded copper wires
21	PoE Support:	Should be compatible with IEEE 802.3bt (PoE++) to handle up to 100W of power delivery for modern high-performance devices
22	Contact Resistance	Less than or equal to 20mOhms
23	Insulation Resistance	Greater than or equal to 500 M Ohm at 100 V DC

Note:-

- The date of submission of online bids is extended up to 20/03/2026 @ 15:00 Hrs.
- The date of opening of bids is extended up to 20/03/2026 @ 15:³⁰~~00~~ Hrs. ✓
- All prospective/willing bidders are requested to take note of this report as part of the tender document. All other parts of the tender including the terms and conditions will remain unchanged.


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