

Tender No: IPR/TN/PUR/ET/18-19/44 DATED 28/12/2018

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(A) Scope, terms and conditions for vendor/bidder:

1. The supply, installation and commissioning will be at IPR campus for 450 network nodes.
2. The preferred make for all passive components be of Tyco/Systimax/corning/Panduit/Molex. All passive components to be supplied must be from same OEM.
3. The preferred make for 15U network rack is President/APW/Rittal.
4. Supply, installation, configuration of passive components (as per the IPR's requirement and the design agreed during project initiation) has to be done by the vendor.
5. All horizontal nodes (end user) connectivity are considered using **CAT6A** cable.
6. Average length of all fiber and copper backbone cable lengths are on assumptions and may vary after the finalization of the cable routing plan.
7. The major cabling work will be at height inside lab building. The lab building is industrial shade (PEB building).
8. The horizontal cable laying will be on existing cable tray and vertical cable laying will be on the IRON COLUMNS. The vertical cable laying will be on the **IRON COLUMNS/PILLARS** will require welding of MS brackets including drilling, coloring, cutting etc.
9. Vendor has to compliance all the security, safety and labor rules and regulation enforced by IPR.
10. The vendor has to arrange the necessary safety equipment.
11. Under any circumstances, campus existing services like existing network, telephone, electric, drainage, water should not be disturbed and vendor has to take extra care for functionality/continuity of the services. In any case, if damaged due to negligence of vendor/sub-contractor, the services to be restore as soon as possible at vendors time, cost and risk.
12. **IPR will provide the OFC 48 core single mode armored cable.**
13. At the end of the project, complete working network as per the IPR's requirements to be handed over to IPR with documentation.
14. The soft/hard soil digging must be at least 3 feet, if required.
15. At the end of the project a complete project documentation shall be submitted to IPR detailing the following (Hard & Soft Copy):
 - A. Floor Plan duly marked with all node locations and their numbering scheme for each location details data and voice connects in AutoCAD/PDF/PPT/DOC
 - B. Rack Elevation Plans for all Network racks
 - C. Jack Panel patching Scheme
 - D. Bill Of Material Utilized
 - E. Schematic layout of Backbone connectivity scheme and the numbering scheme for backbone
 - F. For benchmarking vendor has to submit the test results for copper using **Penta Scanning** and the test results for fiber using **OTDR**.
 - i. All testing should be pass as per ISO & IEEE standards not marginal pass through Fluke/JDSU.
 - ii. Detailed test report would be required for each node and fiber core
 - G. Any other Data as may be required by IPR
 - H. Diagram of fiber laying path

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- I. Diagram of Ethernet end point location – floor wise.
- J. Performance Certificate from OEM of at least 20 years (Passive Components) to be submitted.

16. For any change in the passive cable laying path or connectivity, vendor has to take permission from Computer Center IT staff.
17. The entire work has to be completed as per user satisfaction level.
18. The vendor should arrange all necessary resources including labors, equipment etc., whose entire responsibility, whatsoever would be of the vendor only.
19. **The payment for service/labor charges will be made as per actual.**
20. **Any extra fitting/fixtures material remaining after execution of the job will have to be taken by the vendor and no payment will be made for such excess material.**
21. The bidder must clean the network racks and rewrite the tags on the existing cables properly before installing new devices.
22. The Bidder and OEM both must provide the Support Matrix to call the engineer for any support. The Bidder will register any call log to OEM for any issues related to supplied Hardware and Software during the entire warranty period.
23. **Installation:** To be simultaneously carried out as soon as the vendor/bidder starts the delivery of the material.
24. The entire cabling system shall be based on structured cabling as per TIA/EIA 568-B and TIA/EIA 569-A.
25. All Labelling on Jack Panels shall be done as per colored scheme for the respective color considered.
26. All cables shall be bundled in the rack with Velcro / Button ties for ease of bundling and re-bundling again if required in future.
27. Backbone naming convention for all Copper and fiber to be in accordance to discussion with IPR by numbering at either ends of cables in accordance to the link between the respective Hub rooms.
28. Node labeling has to be done as per ISO standard. Only printed labels will be allowed for labelling.
29. Factory crimped fiber optic patch cords shall be used for connecting LIU and the switch ports.
30. Cable shall be dressed and terminated as per the relevant EIA/TIA standards, OEM's installation standards / practices and best industry practices.
31. Cable shall be laid in continuous lengths from LIU to LIU and shall not exceed the length specified by the OEM to ensure gigabit performance.
32. Fiber core slacks shall be neatly coiled within the fiber termination panel. No fiber core slacks shall be permitted outside the panel.
33. The bending radii of the cable shall follow the OEM's installation standards / recommendations
34. Dust caps will be provided by the vendor on the connectors, couplers and switches (to cover unused fiber and Ethernet ports)
35. Inter floor fiber cables shall be laid inside duct / cable trays / shafts as provided.
36. The copper cables shall be laid in conduits / casing capping/duck.
37. The other supplied accessories must be of good quality and have ISI certified.

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38. The pipes shall be adequately supported to avoid any displacement / disturbance to the copper & fiber optic cabling. The supply of necessary clamps and other related accessories (for support) will be in vendor's scope.
39. Each cable shall be clearly tagged / labelled on the cable jacket behind the patch panel, at a location, that can be viewed clearly without removing cables or the cable ties.
40. Numbering / tagging / ferruling on each rack, LIU, port on the LIU, fiber optic cable etc. shall be done as per existing cable tagging scheme or standards.
41. Wrap labels to be installed on all patch cord labels and cables neatly fanned out and dressed.
42. If required, vendor has to remove the existing old cables without charging any additional cost.
43. While execution of the work, covering of equipment and cleaning of that area will be in vendor scope. The necessary resources has to bring by the vendor for covering the equipment.

(B) Warranty and support:

1. The vendor has to provide minimum 3 years comprehensive maintenance warranty of passive cabling. The warranty will start from the date of acceptance.
2. The Bidder has to provide Technical support for administration/maintenance as and when required/requested for passive components during warranty period. The bidder must send support engineer on the site within 24 hours after problem report.

(C) Site Visit:

Prospective bidder must have to visit site for survey, as the building is of special type (industrial category), only on working days (Monday to Friday) excluding government holidays, at least before 3 days of closing the tender between 14:00 hours to 17:00 hours, by taking prior appointment from Mr. Arvind Singh (Ph. No.: 079-23962308), Mr. Vijay Patel (Ph. No.: 079-23962312).

(D) Completion Period: The entire work to be completed within **2 (two) months** from the date of purchase order.

(E) Authorization to work:

Approval for any electrical/civil work will be provided by the IPR at the time of execution of this project.

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Before quoting, bidder must visit the site personally for site survey otherwise the quotation will not be considered for bidding. The bidder has to fill the required site visit form duly signed by bidder and IPR.

SITE VISIT FORM

Name of the Company with Address: _____

Name of the bidder's representative: _____

Mobile number of representative: _____

Number of person visited: _____

Date of Visit: _____ Time: _____

I have visited the site (Lab Building and Neutronics Building) and fully understood the networking requirement. I understood that this project involves the working at height and the risks associated.

(Sign. of bidder's representative)

(Sign. of IPR's representative)

(Note: Bidder's representative is required to attach the visiting card with this site visit form)