



INDIAN STATISTICAL INSTITUTE
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Notice Inviting Expression of Interest

Indian Statistical Institute (ISI), a prestigious institution of national importance under the Ministry of Statistics and Programme Implementation, Government of India and renowned for its excellence in teaching, training and research in theoretical and applied Statistics as well as various related fields, invites Expressions of Interest (EOI) from reputed and sufficiently experienced / qualified organizations/agencies for the supply, installation, commissioning, and integration of a robust network infrastructure in its newly constructed academic building at its Kolkata campus.

Background

The new academic building, comprising [Ground + 5 upper floors], is designed to cater to the diverse academic, research, and administrative needs of the Kolkata campus of ISI. The institute seeks to establish a state-of-the-art LAN and Wi-Fi network infrastructure that should provide high-speed reliable network connectivity, along with its scalability, and security as described later. Interested prospective parties may send emails to headcssc@isical.ac.in with a copy to csscoffice@isical.ac.in from their official email ID to obtain the floor wise Building Conduit Diagram (Annexure-I), relevant details of individual floors such as their number, dimensions, and seating capacity of individual Classrooms, Lecture Halls, Seminar Halls, etc. (Annexure-II) including the Building Floor Plan (Annexure-III).

Objectives

- **High-Speed Connectivity:** Provide reliable network connectivity through LAN and WiFi to support both the academics and administrative activities seamlessly.

- Scalability: Design scalable network architecture capable of accommodating future growth of user volume and floor space as well as advancements of related technologies. It should be scalable up to 200% of the commissioned capacity.
- Reliability: Implement redundant configurations in an optimal way and use reliable hardware components made by the market leaders in respective technology verticals to minimize the downtime and ensure availability of network connection in a seamless manner. There must be link level redundancy and device level redundancy up to distribution points.
- Support and Maintenance: Offer post-installation comprehensive warranty and same business day on-site technical support for the active components during the next five years from the date of completion of the work and 25 years warranty for the passive components, post-warranty maintenance services for another five years. Additionally, the implementing agency should provide necessary training to the network support team personnel of ISI Kolkata for effective management and troubleshooting of the network infrastructure after installation.

Scope of Work

Setting up Gigabit Ethernet LAN Infrastructure:

The scope of work includes planning, supply, installation, commissioning and testing of the Gigabit Ethernet across all floors, as well as its integration with the Institute's existing Gigabit Ethernet LAN Infrastructure.

Design considerations:

10G Backbone Optical Fibre Cabling for high-speed data transmission should be up to Layer 2 Access Switches. The uplink fibre lines need to be established from the existing connections of two different buildings (S. N. Bose Bhawan or the Library Building as the primary connection and R. A. Fisher Bhawan as the standby connection). In dedicated network rooms on each individual floor, there must be (i) high-quality, fire-resistant cabling for Ethernet connections ensuring adequate reliability and safety, (ii) setup of network infrastructure equipped with Network Racks along with all accessories and PDU, (ii) organization of the cables both inside and outside the racks as per the industry standard, (iii) proper Cooling Facility for maintaining 24×7 optimal operating temperatures for the active components, (iv) provision of Uninterruptible Power Supply (UPS) systems tailored for network switches and other related critical infrastructure (if

any) to ensure continuous operation during power outages as well as providing safety to the equipments from electrical fluctuations, and (v) arrangement of other necessary safety measures (if any) for the protection of the costly network equipments from possible accidental damages.

Details:

At the time of construction of building, provision for PVC Conduit of 265 Nos. of LAN / data point were made. It may require additional PVC conduits for laying cables connecting Wi-Fi access points.

To complete the task, the vendor should provide a detailed list of items /services such as: optical fibre cable, LIUs, Patch Panels, Fibre Patch Cords, and SFP (Small Form-factor Pluggable) Transceiver Modules, Cat6 UTP LSZH Cabling. RJ45 Patch Panels, Cat6 UTP Patch Cords, Cat6 I/O, Face Plates, Back Boxes (Single Port), PVC Conduit, Network Racks, Cable Managers, Layer 3 Network Distribution Switches, and Layer 2 PoE (Power over Ethernet) Access switches. Mandatorily all access switches should be managed and PoE enabled. All components including the above items required for implementation of the project should necessarily be presented in the form of **bill of materials**.

Wireless LAN Infrastructure:

The scope of work includes planning, supply, installation, commissioning and testing of the WLAN infrastructure across all floors of new academic building.

Deployment of Wi-Fi Access Points (WAPs) and a centralized Wireless Controller to ensure complete wireless coverage and effective network administration. The number of Wi-Fi Access Points should be sufficient to cover the entire building and provide reliable, high-speed connectivity even at maximum occupancy in Classrooms, Lecture Halls, and Seminar Halls. The design rationales for WLAN should be elaborated. APs should be indoor and PoE compatible. The access switches should be chosen to cater the power requirements of the APs. The placement of APs keeping scalability in mind should be done suitably.

Centralised management of the network infrastructure (LAN and WLAN):

- Implementation of secure authentication mechanisms and monitoring of network usage for enhanced security and manageability including but not limited to AAA, NMS, etc.

Submission Requirements


Interested companies/agencies are requested to submit their EOIs, including:

1. Company Profile: Overview highlighting relevant experience in deployment of network solutions for government organizations, educational institutions and execution of projects of similar or higher volumes in and outside Kolkata.
2. Technical Proposal: Detailed and elaborate description of the proposed network architecture, technologies to be used, and deployment strategy.
3. Past Projects: List of relevant projects completed during the last five years, including client references and contact information.
4. Team Expertise: Profiles of key personnel in the payroll of the organization who are expected to be involved in the implementation of the project, detailing their qualifications and experience.
5. Timeline: Proposed project timeline with key milestones and deliverables.
6. Financial Proposal: Cost estimate with a breakdown of expenses related to hardware, software, installation, testing, and support for the warranty period. Bill of materials should mention make and model of each individual item.
7. Detailed technical specifications of each of the items.

Interested companies/agencies are requested to send the techno-commercial (budgetary) proposal of their solutions, along with the related documents to headcssc@isical.ac.in, with a copy to csssoffice@isical.ac.in within 5:00 PM of 25 July, 2024.

Representatives of interested companies/agencies must survey the site between 08 July 2024 and 12 July 2024 by scheduling prior appointment. Email requesting a convenient time interval for site visit should be sent to cssservice@isical.ac.in with a copy to csssoffice@isical.ac.in at least one working day in advance.

Important Note: Participating OEM/agencies should adhere to the existing rules of Public Procurement (Preference to Make in India), of the GoI.



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