IISER Mohali

भारतीय विज्ञान शिक्षा एवं अनुसंधान संस्थान मोहाली

मानव संसाधन एवं विकास मंत्रालय, भारत सरकार द्वारा स्थापित
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(Established by Ministry of Human Resource Development, Govt. of India)
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IISERM(444)14/15 Pur (2) 20th May 2015

TENDER NOTICE

On the behalf of Director, IISER-Mohali, sealed tenders in **TWO BID SYSTEM** are invited, for supply and installation of Campus Wide Area Network, along with EMD money by DD /Banker Cheque/ FDR/ Bank guarantee for Rs 2,00,000.00 in favour of the Registrar, IISER Mohali, so as to reach us latest by 10th June 2015 before 11am and opened on the same day at 12 noon.

-sd-
Assistant Registrar (S&P)

Wide Area Network for IISER Mohali Campus

Bids are invited to set up a wide area network at the IISER Mohali campus in Knowledge city, Sector 81. The requirements are:

1. **Core Switch.** The core switch should allow wire speed and non-blocking performance. The core switch should have a minimum of 24 1Gbps/10Gbps ports. Should have stacking capability with minimum of 40 Gbps bandwidth and be able to stack up to four switches into a single virtual switch. This switch must support OPSF and BGP protocols without requiring any additional license or software.

2. **Connectivity of all the buildings to the Informatics building.** An optical fibre (single mode type) backbone linking all the buildings has been set up. The key requirement is to set up the core switch and also distribution switches in each building to provide connections from all the locations to the core switch. The list of buildings to be connected is given below. Buildings marked in bold are to be provided with a 10 Gbps connection. All other buildings are to be provided with a 1 Gbps connection.

   All buildings are to be connected in a redundant manner with full duplication of channel and switches.

   Distribution Switch proposed in each building should be able to divide the intra-building network into sub-networks, where required. It should be possible to define such sub-networks using a network management system.

   - **Academic Blocks 1 & 2. [500+ points each]**
   - Animal Facility. [30 points] [OFC Connection from AB-1 Distribution switch]
   - Lecture Hall Complex. [20 points]
   - **Central Analytical Facility. [50 points]**
   - Health Centre. 30 points [connection via CAF]
   - **Informatics. [250+ points]**
   - Administrative Block. [100 points]
   - **Central hub in MJ block with 10Gbps connectivity from the core switch.**
   - Connections from MJ block to distribution switches in multi-story apartment blocks ME, MI, MJ & MK, and, Duplex houses.
   - Visitors Hostel. [120 points]

1. **Connectivity to the Campus-wide Wifi network from the core switch.** This connection should be 10 Gbps.

2. **Connections to the server farm from the core switch.** Each of the servers (with 10GBase-T ports) should be provided with 10 Gbps connectivity. This connectivity may be provided from the core switch directly, or from a separate switch with a link speed of at least 40 Gbps. All servers will be located in a rack adjacent to the core switch hence the distance will be less than 5m in all cases, as measured along the cable route. Provision should be made for connecting up to 24 servers. Some network servers will have additional 1 Gbps connections. In case servers are connected to a separate switch, the switch should have a redundant connection to the core switch with each connection providing at least a 40 Gbps connectivity. It should be possible to use the two connections in parallel providing at least 80

Gbps connectivity in normal conditions. If the server farm has a separate switch then this must come with a redundant power supply. This switch must support OPSF and BGP protocols without requiring any additional license or software.

3. **Intra-Building Networks.** Network switches for intra-building networks need to be set up in some buildings. Network cabling in these buildings is not a part of this purchase process. The buildings where network switches need to be set up are:

- Academic Block 2. [Total points 500+, Subnetworks: 10]
- Informatics Building. [Total points 250+, Subnetworks: 5]
- Administrative Block. [Total points 100, Subnetworks: 6]
- Health Centre. [Total points 30, Subnetworks: 2]
- Animal facility. [Total points 30, Subnetworks:2]
- Lecture hall complex. [Total points 20, Subnetworks: 2]
- Visitors hostel. [24 port switch for feeding to existing edge switches]
- Multistory blocks: ME, MI, MJ & MK. [24 port switch in each block to connect to existing edge switches]
- Duplex Houses. [Total points 20, Subnetworks: 2]

A diagram describing the topology of the campus-wide network is enclosed.

Core and distribution switches should have an in chassis hot swap redundant power supply.

All distribution switches should be in the high availability mode.

All switches should be minimum 24 port. All switches should support inter VLAN routing from day 1.

Access switches must support stacking with stacking bandwidth of 40 Gbps or above. It should be possible to stack up to four switches.

Real time reporting over the network and programmable alarms over e-mail and SMS should be possible in all network switches in the proposed solution. It is the responsibility of the vendor to set up and maintain an SMS gateway for this purpose.

A centralised network management system (NMS) should be supplied along with the hardware, making it possible to manage and monitor the entire network from a single location. NMS should have a web interface for full functionality.

All network switches should support IPv6 routes in the proposed configuration, without addition of any hardware, software or licence requirement.

The vendors will be required to station an engineer on site for two weeks after completion of installation.

Comprehensive training of our staff on management and usage of the equipment is to be provided on site. Detailed documentation and quick reference cards should be provided as a part of this training.

All equipment should come with five years of comprehensive on site warranty. Support and upgrades for any software supplied in this order should also be made available at no additional cost for a period of five years.

One OEM can support only one bid. Each bid should be accompanied by an authorization from the OEM for this specific tender. In case an OEM authorises more than one bid, all the bids from that OEM will be disqualified. Bids without an appropriate authorization from the OEM will also be disqualified.

The bid should clearly state contact details of the vendor with phone number, e-mail address and postal address. Alternative phone numbers and e-mail IDs may also be provided.

Only vendors who have executed at least two orders of a similar nature and scale during the last three years may quote. Each such order should be of value Rs.50 Lakh. A copy of the purchase order and a satisfaction certificate should be included in the bid.

Vendors should submit a detailed proposal alongwith drawings, part numbers and detailed technical specifications of each network switch and device used in the proposal. Technical details of any software to be supplied should also be provided. The complete bill of materials should be provided in the technical bid. Open source software will be given preference in technical evaluation. *Proposals that meet basic requirements* will be evaluated on technical grounds as follows. Please note that a proposal that does not meet the stipulated requirements will not be evaluated.

S.No.	Item	Marks
1	Overall proposal	35
2	Features of Network Management System	10
3	SMS and E-Mail alarm related features	5
TOTAL		**50**

For any pre-bid discussions, you may visit the site on May 27, 2015 between 2:00pm-5:00pm.

Vendors must submit a soft copy of the technical bid in a CD/DVD along with the technical bid.

Any technical queries should be e-mailed to headcc@iisermohali.ac.in. Communication by other means is discouraged.

Presentations by vendors will be scheduled on June 10, 2015.

INSTRUCTIONS

1. The Quotation should be addressed to the Director IISER Mohali invariably giving on the envelop Reference No. with date and Due date with time.

2. One time importers from China with custom made specifications are highly discouraged.

3. The quantity mentioned in this inquiry is and shall be deemed to be only approximate and will not in any manner be binding on the Institute.

4. The rates offered should be FOR Chandigarh/Mohali in case of firms situated outside Chandigarh/Mohali, and free delivery at the Institute premises in case of local firms. Supply outside India please mention the FOB/FCA price clearly.

5. In case of Ex-godown terms the amount of packaging forwarding freight etc should clearly be indicated by percentage or lump sum amount. Institute has policy not to make any advance payment towards any purchase, Letter of credit can be opened if required.

6. In case of foreign consignment CIF/FOB/FCA/CIP should be mentioned clearly. THE INSTITUTE IS EXEMPTED FROM EXCISE AND CUSTOM DUTY.

7. SALES TAX :- This Institute is not exempted from the payment of Sales Tax/Service Tax/VAT. The current rate (i.e. percentage of Sales Tax should be clearly indicated included or excluded) wherever chargeable.

8. The delivery period should be specifically stated. Earlier delivery will be preferred.

9. The firms are requested to give detailed description and specifications together with the detailed drawings, printed leaflets and literature of the Article quoted. The name of the manufactures and country of manufacture should also invariably be stated. In the absence of these particulars, the quotation is liable for rejection.

10. Validity of offer: 90 days. Firm should replace all manufacturing defect parts/ whole under warranty period without any extra cost including clearance, freight, taxes. Security deposit/ Bank Performance guarantee for 10 % of the value of supply order as per norms may be sought from firms.

11. Late or delayed quotation will not be accepted.

12. Service Facility: Please mention the nearest service centre to IISER Mohali and the time required to attend the call.

13. The right to reject all or any of the quotation and to split up the requirements or relax any or all the above conditions without assigning any reason is reserved.