

**Expression of Interest (Eoi) is invited by the undersigned for the Secured Wired & WI-FI Internet Connection for the newly constructed buildings of Mathematics, Humanities & Social Sciences and Three blocks of Faculty Residences of IIT Roorkee, Roorkee Campus**

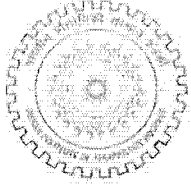
**Invitation for Submitting Expression of Interest**

**Dated: 29-01-2021**



**Indian Institute of Technology Roorkee  
Roorkee – 247 667,  
Uttarakhand, India**

4/29/21



Indian Institute of Technology Roorkee  
Roorkee – 247 667  
Uttarakhand,  
India

**No. 1000000004/MM-3/IITR/2020-21/Secured Wired & WI-FI Int/ICC/304**

**Dated: 29.01.2021**

On behalf of the Board of Governors of IIT Roorkee, Expression of Interest (Eoi) is invited by the undersigned to implement a Secured Wired and Wireless Internet connection at Math, HSS & Three blocks of Faculty residences of IIT Roorkee campus and its Seamless Integration with the existing infrastructure at Institute Computer Centre on turnkey basis along with high availability and path redundancy from distribution to core level with Centralized Network Admission Control. For details of obtaining Eoi document, please visit institute website under Tender/EOI & CPP Portal <https://eprocure.gov.in/epublish/app>. The sealed Expression of Interest should reach the undersigned by 15:00 hours on February 19th, 2021 which will be opened on February 19th, 2021 at 15:30 hours **in the Material Management office, Indian Institute of Technology Roorkee, Roorkee.**

**Issue Date: 29-01-2021**

**Closing Date: 19-02-2021**

Deputy Registrar  
Material Management  
Indian Institute of Technology Roorkee  
ROORKEE – 247 667 Uttarakhand,  
India Tel.: 01332 – 284693/ E-mail: [mmiitr@iitr.ac.in](mailto:mmiitr@iitr.ac.in)

## DOWNLOADING OF EOI DOCUMENTS

EOI document may be obtained from the **CPP Portal** <https://eprocure.gov.in/epublish/app> and EOI Fee non-refundable of Rs. 1000/- (Rs. One thousand only) which should be deposited online into below mentioned account.

### Details of IIT Roorkee Bank Account:

**Account Name: NON MHRD GOVERNMENT FUND IIT ROORKEE**  
**Account No.: 00000032685865515**  
**Bank Name: STATE BANK OF INDIA**  
**Branch Address: IIT ROORKEE, ROORKEE**  
**IFSC Code: SBIN0001069**  
**MICR: 247002094**

The document may also be downloaded from the Institute Web-site (<http://mm.iitr.ac.in/mmweb/eoi>) but EOI Fee of **Rs. 1000/-** non-refundable as mentioned above should be deposited in above mentioned account. The Bidder will have to fill EOI Fee details & provide the EOI reference number in the narration/remarks while doing the payment as per EOI Document and share the receipt of the same along with the sealed EOI. The qualification in EOI will be subject to the submission of EOI Fee in above mentioned account within schedule date and time as mentioned in the EOI Document. IITR shall not be responsible for any delay in submission of EOI Fee.

In case the EOI Fee is not received in above mentioned account within the aforesaid period i.e. before bid opening date & time as mentioned in EOI Document, the bid will be out rightly rejected.

**Address:**  
**Material Management**  
**Indian Institute of Technology Roorkee**  
**Roorkee – 247 667**  
**Uttarakhand, India**  
**Tel.: 01332 – 284693**  
**E-mail: [mmiitr@iitr.ac.in](mailto:mmiitr@iitr.ac.in)**

### IMPORTANT DATES:

Critical Date Sheet			
1	Date of issue of EOI	29-Jan-2021	
2	EOI Submission End Date	19-Feb-2021	(15:00)
3	EOI Opening Date	19-Feb-2021	(15:30)

## 1.0 INTRODUCTION

IIT Roorkee has its roots in the Roorkee College, which was set up in 1847. It was renamed as the Thomason College of Civil Engineering in 1854. The College laid the foundation of modern engineering education and the use of Civil Engineering practices in the infrastructure development of the country. The irrigation infrastructure in the form of dams and canals, roads and highways, railways, bridges etc. in the country – all have been the outcome of the engineering education imparted in this – the only engineering institution in the country at that point of time.

It got elevated as the first technical University of the country in 1948 through the Roorkee University Act, 1947 passed by the United Provinces Legislature.

Roorkee University also became the first institution in the country to offer Postgraduate Programs in engineering and technology in 1955. On September 21, 2001, the University was converted into an IIT by the Government of India through an Act of Parliament and recognized it as an Institution of National importance.

## 2.0 INSTITUTE COMPUTER CENTRE

IIT Roorkee is having a star topology network and Institute Computer Centre (ICC) is the nodal center for outside / inside connectivity to the IITR campus. The various departments/centers/hostels/residences of the institute are connected to ICC through Fiber Optic based campus wide LAN. Presently 27000+ Wired / Wireless nodes are operational through our campus LAN in various departments / centers / hostels. The Institute has **20.0 Gbps** Internet gateway from NIC, New Delhi and the Saharanpur Campus of IIT Roorkee is linked with 34 Mbps fiber Link and 1.0 Gbps Internet Gateway from NIC.

### 2.1 Brief Description of Institute's Campus Wide Network

Indian Institute of Technology Roorkee has set up a robust, scalable, state-of-the-art Campus Wide Local Area Network connecting its various blocks, hostels and residential area with **Institute Computer Centre (ICC)**. The Campus Wide Local Area Network (LAN) is structured on 3-tier network architecture wherein access locations are directly connected / aggregated to nearest distribution points which in turn are connected to Core Switch placed at **ICC**. Existing campus wide local area network has been built with following design principles.

#### Hierarchical

- Facilitates understanding the role of each device at every tier
- Simplifies deployment, operation, and management
- Reduces fault domains at every tier

#### Modularity

- Allows the network to grow on an on-demand basis



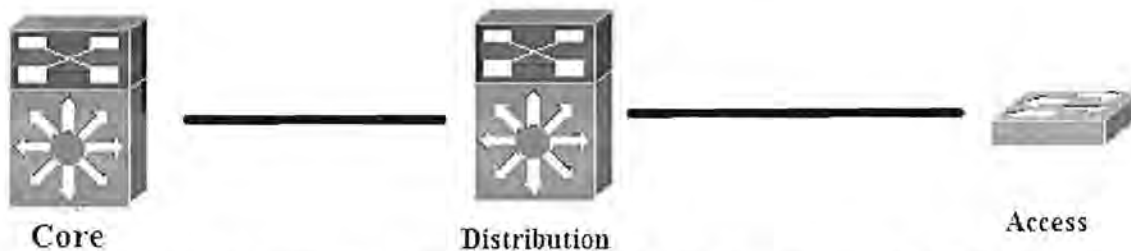
### Resiliency

- Satisfies user expectations for keeping network always on

### Flexibility

- Allows intelligent traffic load sharing by using all network resources

Presently, IIT Roorkee Local Area Network is supported by a set of high-end Core switches installed at ISC, Distribution switches and access switches



**Three - Tier Architecture (with physical and logical redundancy at each layer)**

Each layer is built as well-defined structured module with specific roles and functions in the LAN network. Introducing modularity in the LAN hierarchical design further ensures that the LAN network remains resilient and flexible to provide critical network services as well as to allow for growth and changes that may occur in IIT Roorkee Campus LAN from time to time.

### Access layer

The access layer represents the network edge, where traffic enters or exits the campus network. Primary function of access layer switch is to provide network access to the user. Access layer switches connecting to the distribution layer switches which in turn are being connected to the Core Switch to perform network foundation technologies, which are given as:

- Limiting VLANs to a single closet whenever possible
- Running Rapid PVST+ to avoid Layer 2 loops in network.
- Running secure VTP with MD5 protocol to reduce administrative burden of configuring VLANs on multiple switches in turn eliminating the configuration errors & troubleshooting in secure manner. VLANs configured on Core or Distribution switches are updating to access switches automatically in secure manner.
- Trunks are set to on/on without negotiation, pruning unused VLANs on access switches. Quality of service (QoS) and per port MAC Address Based Security is implemented on access switch ports.
- To meet network application and end-user demands, switching platforms are implemented to provide intelligent services to various types of endpoints at the network edge which in turn help to use network as platform for various future applications requirement for voice, video and data. Building intelligence into access layer switches allows them to operate more efficiently, optimally, and securely.

### Distribution layer

The distribution layer is interfacing between the access layer and the core layer to provide many key functions, such as the following:

- Aggregating and terminating Layer 2 broadcast domains from access switches



- Running Rapid PVST+ to avoid Layer 2 loops in network
- Running secure VTP with MD5 protocol to reduce administrative burden of configuring VLANs on multiple switches in turn eliminating the configuration errors & troubleshooting in secure manner. VLANs configured on Core or Distribution switches are updating to access switches automatically in secure manner
- Trunks are set to on/on without negotiation, pruning unused VLANs on access switches
- Aggregating Layer 3 routing boundaries and running EIGRP as routing protocol for fast convergence and equal cost path sharing
- Providing intelligent switching, routing, and network access policy functions to access the rest of the network

### Core layer

The core layer is the network backbone that connects all the layers of the IIT Roorkee Campus LAN, provides for connectivity between end devices, computing and data storage services located within the data center and other areas along with services within the network. The core layer is serving as the aggregator for all the other campus blocks. The core layer interfacing between the distribution layer and server access layer provides for many key functions, such as the following:

- Aggregating and terminating Layer 2 broadcast domains from server access switches
- Running Rapid PVST+ to avoid Layer 2 loops in network for server's access switches
- Running secure VTP with MD5 protocol to reduce administrative burden of configuring VLANs on multiple switches in turn eliminating the configuration errors & troubleshooting in secure manner. VLANs configured on Core or Distribution switches are updating to access switches automatically in secure manner
- Trunks are set to on/on without negotiation, pruning unused VLANs on access switches
- Layer 3 routing between multiple distribution layers and running EIGRP as routing protocol for fast convergence and equal cost path sharing
- Providing intelligent switching, routing, and network access policy functions to access the rest of the network
- Other than above mentioned functions all switches in the Campus Network are Capable to perform layer 3 traceroute, layer 2 traceroute and layer 2 debugging for troubleshooting. Distribution and access switches. Which would be required for implementation in this project, must be fully compatible with protocols running in existing Campus LAN Network.

## 3.0 SCOPE OF WORK

IIT Roorkee plans to create a secured wired and wireless internet connection at the newly constructed buildings of Mathematics, HSS & Three blocks of Faculty residences, which must be integrated seamlessly with the existing infrastructure of IITR. Institute is also interested to upgrade the existing network to state of the art enterprise grade network to accomplish the above. This will be implemented on turnkey basis along with Path Redundancy, High Availability and Centralized Network Admission Control. The scope includes supply, installation, integration, commissioning and management. We request all interested OEMs/System Integrators/Vendors to visit IIT Roorkee for further clarifications.

### 3.1 Requirements

1. The implementation should be able to provide network and internet services (both wired and Wi-Fi) to all the users of the without performance degradation. A performance metric must be



defined; the design should be scalable and must ensure that the performance metric is honored for a predefined/proposed scalability/load matrix.

2. The compounds within the scope of the EOI must be Wi-Fi enabled.
3. A centralized network admission control (Authorization, Accounting and Access) is already in place at gateway level along with NMS to manage the existing devices centrally. The proposed solution in this EOI must be integrated seamlessly with the existing deployment.
4. Proposed L3 and L2 switches must be integrated seamlessly with existing Core and security devices which are already deployed in IITR
5. Switches to be quoted in the RFP should be fully compatible and configurable with the existing management console so that homogeneous policy implementation can be pushed.
6. Wireless system to be deployed should be fully integrable with the centrally controlled wireless system already deployed at IIT Roorkee so as to make use of the investment made by the institute on acquiring a state of the art wireless network.
7. The solution must be capable of guest user management and Single Sign On across the intranet for both wired and Wi-Fi network.
8. Proper Heat Map should be provided by the successful bidder post installation depicting proper installation and Coverage.
9. The proposed solution must be capable of identifying and quantifying network resources/entities (e.g be it user, devices, applications, software, hardware etc.) and their behavior, context, pattern in the network by seamlessly getting integrated with the existing network security infrastructure to avoid any normal or advanced threats such as zero day attacks, bots etc.
10. Cabling has to be structured. Best effort must be made to maximize the use of existing cabling
11. The solution must be optimized and must make best use of the existing infrastructures and resources while addressing our advanced requirements (for active, passive and security for both Wi-Fi and wired)
12. All the components related to passive cabling must be from a single OEM only. All the active devices must be from the single OEM only. This applies to both wired and wireless network
13. Any bidder from a country which shares a land border with India will be eligible to bid in any procurement whether of goods, services (including consultancy services and non-consultancy services) or works (including turnkey projects) only if the bidder is registered with the Competent Authority, specified in Annex I. **(For detail please refer F.No.6/18/2019-PPD, Ministry of Finance, Department of Expenditure Dated: 23.07.2020.)**
14. Passive wiring & conduiting must maintain the existing aesthetics of the building.

15. Tendering will be further processed with the currency option of INR only (For details, please refer **Ministry of Finance, Department of Expenditure No.F.20/38/2020-PPD dated 18.11.2020.**)

### 3.2 Other Scope of Work

- (i) BoM verification
- (ii) BoQ verification
- (iii) Physical installation of equipment
- (iv) POST (Power on self-test) of the device.
- (v) Product Installation Report Sign-off from Customer
- (vi) Design document for implementation
- (vii) Project milestone report signoff from customer for Passive devices implementation.
- (viii) Installation & configuration of Devices.
- (ix) User Acceptance Testing
- (x) Any other task (s) necessary for successful commissioning and Operation of the complete project.
- (xi) Project Documentation with as-build configuration.
- (xii) Project Milestone Report Sign-Off from Customer for Active devices.
- (xiii) Training to Customer IT Support Engineers for five days on the component of structured cabling, LAN, WAN, Security, basic trouble shooting and maintenance.
- (xiv) Project Closure and handover to IITR Support Team.
- (xv) Project Closure Signoff from customer.

### 4.0 ELIGIBILITY CRITERIA

Bidders intending to participate must fulfill the following qualifying criteria (**All compliance statements shall be supported with relevant documents and certificates**, failing which the offer may be rejected):

#### (A) Bidder:

1. The bidder's Gross Turnover from IT services and System Integration of LAN networking services in India should be more than Rs. 25 Crores (Twenty-Five Crores) per year in the last three financial years viz. 2017 -18, 2018 -19 and 2019 -20. A relevant page of the balance sheet must be attached. A certificate from the Chartered Accountant clearly specifying IT services and System Integration of LAN networking services on the turnovers for these years, in original, must be submitted. The bidder must have Net Positive Worth.

[To be submitted as Annexure No: 1]

2. Bidder should have satisfactorily completed at least one similar work of value not less than Rs. 500 Lac or two similar works of value not less than Rs. 250 Lac each during the last **Five** years ending 31.12.2019.

Similar Work means "Supply, Installation, Testing, Commissioning and Management of LAN Works"



**Note:** Please enclose copy of purchase order(s), and Completion Certificate(s) and submit the details of contact person (Address, Telephone and Mobile nos., E-mail I.D.)

**[To be submitted as Annexure No: 2]**

- Bidder should be an OEM of Network Active Components like Router/ Core/ Distribution/ Access switches, Wireless Controller, Access Point, Firewall, DMZ Switches, NMS and AAA, who should execute total scope of work as detailed in the Bid document.

OR

Bidder should be an Authorized System Integrator of the OEM for both Network (for both wired and Wi-Fi) Active and Passive components and shall **submit a letter of Authorization from the OEMs of Network Active and Passive Components for this specific Tender.**

**[To be submitted as Annexure No: 3]**

- Bidding company should be registered in India and has been in operation for at least 10 years as on 31.03.2020. A copy of registration certificate should be provided.

**[To be submitted as Annexure No: 4]**

- The bidder should be registered with the Service Tax /GST Department and should carry a valid PAN in the name of the firm/company. (Details must be provided).

**[To be submitted as Annexure No: 5]**

- The bidder should be a single legal entity/ individual organization. Consortium shall not be allowed. (Undertaking signed by authorized signatory must be provided)

**[To be submitted as Annexure No: 6]**

- The OEM for passive components should have technology partnership (certificate) with the OEM of active components included in the offer to ensure complete feature compatibility. (Details/certification must be provided)

**[To be submitted as Annexure No: 7]**

- The bidder should have at least two or more resource persons with the highest technical certification on offered product line from the OEM. (Details must be provided)

**[To be submitted as Annexure No: 8]**

- The bidder should submit the single proposal for supply, installation, integration, commissioning and management of active and passive network components (inclusive of both wired and wireless network solution with security). The bidder should have minimum 10 years of experience for supply, installation, integration, commissioning and management of LAN Project

(Certified copies of Successful Work Completion Certificates on the letter head of concerned Institution clearly stating the nature of work to be submitted as proof.)

**[To be submitted as Annexure No: 9]**

10. The bidder must have executed (supply, installation, integration, commissioning and management) a single order of 4500 nodes or two orders of 3500 nodes of the quoted Active product of OEM each, in last five years in any of the large educational Institutions/ Universities. (Certified copies of successful work execution certificate clearly stating the no. of nodes in a single order to be submitted as proof)

**[To be submitted as Annexure No: 10]**

11. The bidder must ensure AMC support for additional 5 years for all supplied components (active and passive) after the expiration of warranty.

**[To be submitted as Annexure No: 11]**

12. All active components to be procured by the bidder should be from an OEM, which has not been acquired by any other business entity(s) in last 5 years and is not likely to be acquired by any other business entity(s) in the next 5 years from the last date of bid submission. This is to ensure dependable and continuous support for the next 7 years as per warranty requirements and lifecycle of the network. (Undertaking must be provided)

**[To be submitted as Annexure No: 12]**

13. The bidder should be ISO 9001, ISO 20001, ISO 27001 and CMMI 3 certified as on the date of opening of the offer. (Certified copies of valid certificates to be submitted as proof).

**[To be submitted as Annexure No: 13]**

14. All passive network components quoted by the bidder should be from a single OEM only. A letter in this regard has to be submitted by the bidder.

**[To be submitted as Annexure No: 14]**

15. All quoted products should be available as on date with the OEM and should be publicly reference able. (Undertaking must be provided)

**[To be submitted as Annexure No: 15]**

16. Bidder's must not offload deployment of Active Components (Network Switches) to any third party (Undertaking must be provided)

**[To be submitted as Annexure No: 16]**

17. The bidder should have at least 20 full - time engineers on its permanent payroll. (should provide a certificate to this effect supported by some documentary evidence).

**[To be submitted as Annexure No: 17]**



18. All the deployment (Active, Passive, Security) has to be OEM audited. Respective audit report has to be submitted by the bidder during signoff. Acceptance be submitted now.

**[To be submitted as Annexure No: 18]**

19. Online project management tool has to be provided from day 1 for logging issues and tracking issues during the implementation phase of the project as well as during the annual management/maintenance and support phase post implementation. Multiple roles and responsibilities should be assigned to the users for managing the projects online. It should be able to track daily, weekly, monthly progress and should be able to generate reports. Pilot demonstration and approval from IITR for this software should be taken in advance before commencing the work. Acceptance be submitted now.

**[To be submitted as Annexure No: 19]**

**(B) OEM for Active Components:**

20. All active network devices (Wired) and Network Management System (NMS) quoted by the bidder should be from a single OEM only and Single NMS should support it. The NMS should have the capabilities to support and integrate with the existing as well as the proposed Network, with single pane of glass. The bidder should submit a certificate from the OEM to this effect.

**[To be submitted as Annexure No: 20]**

21. All active Wired and Wireless devices (Switches, Aps, etc.) quoted by the bidder should be from a single OEM and must be seamlessly integrated with the existing NMS, Wireless Controller, gateway security and routing devices to avoid further augmentation of similar functionality appliances/devices. The bidder should submit a certificate from the OEM to this effect.

**[To be submitted as Annexure No: 21]**

22. The OEM of active devices should be a publicly listed company. (Details must be provided)

**[To be submitted as Annexure No: 22]**

23. The OEM for active devices must be listed in Gartner Magic Quadrant (Leaders/Challengers)/ InfoTech Research (Champions) / Forrester wave (Leaders/ Strong Performers) in respective latest reports. (Listing in any of the three is compulsory for being eligible). (Details must be provided)

**[To be submitted as Annexure No: 23]**

24. The OEM of the network product (wired) should have well established manufacturing plant/ Research & Development Lab in India or abroad. (Details must be provided)

**[To be submitted as Annexure No: 24]**

25. The OEM of active network components to be quoted by the bidder should be present in India for at least past 10 years. (Details must be provided)

**[To be submitted as Annexure No: 25]**

26. The OEM whose active components to be quoted by the bidder should have posted profit in last ten years. (Details must be provided)

**[To be submitted as Annexure No: 26]**

27. The OEM of Active network components to be quoted by the bidder should have local Technical Assistance Centre (TAC) support in India, operated through a toll free number and Returned Materials Authorization (RMA) depot in India. (Details must be provided)

**[To be submitted as Annexure No: 27]**

**(C) OEM for Passive components:**

28. The OEM of passive devices should be a publicly listed company. (Details must be provided)

**[To be submitted as Annexure No: 28]**

29. The OEM of passive components should have supplied to any of the large educational Institutions/ Universities to execute a similar project of minimum 5000 Nodes or at least two project of 4000 nodes each. (Details must be provided)

**[To be submitted as Annexure No: 29]**

30. The OEM of passive component is required to provide the performance warranty of minimum 20 years from the date of commissioning. (Details must be provided)

**[To be submitted as Annexure No: 30]**

31. The OEM of passive components should have at least one Registered Communication Distribution Designer (RCDD) certified person based in India whose services can be utilized for this project. (Details must be provided)

**[To be submitted as Annexure No: 31]**

32. The OEM of passive components should provide UL/ETL certification for the full copper channel link (UL/ETL 4 connector test report) with at least 6 dB NEXT headroom and the individual copper components and fiber cable should be UL/ETL listed. (Details must be provided)

**[To be submitted as Annexure No: 32]**

33. The OEM of passive components should support copper channel for 6 connections with minimum 3dB NEXT headroom (UL/ETL report need to be submitted).

**[To be submitted as Annexure No: 33]**

*A. J. Mishra*  
*Sandeep*  
*Vishar*  
*Static*  
*AR*



34. All the fiber cable should be bend insensitive and single mode fiber cable should be bend insensitive with zero/ low water peak construction as per G.657.A1 (Details must be provided)

**[To be submitted as Annexure No: 34]**

35. The OEM of passive components should provide UL/ETL reports of margin of 3dB or higher for Cat 6A channel and 6dB or higher for Cat 6 channel of NEXT (worst case) for entire frequency range specified in ISO/IEC 110801 (Details must be provided)

**[To be submitted as Annexure No: 35]**

36. All passive components should be RoHS complied. Declaration of RoHS compliance should clearly be mentioned on data sheets of each Passive Components. (Details must be provided)

**[To be submitted as Annexure No: 36]**

37. The Cat 6A Cable should be complied with IEC 60332-3-22 features for environment safety (UL/ETL/ABS report must be submitted).

**[To be submitted as Annexure No: 37]**

38. The supplied passive product must have capability to upgrade to Intelligent Cabling System without any downtime and they must have their own solution of intelligence including software. Reference with product data sheet must be provided.

**[To be submitted as Annexure No: 38]**

39. The OEM of passive components to be quoted by the bidder should be present in India from at least past 10 years. (Details must be provided)

**[To be submitted as Annexure No: 39]**

#### **D. Others**

40. All active devices/items to be proposed must be eligible for at least 7 years of hardware support & warranty (**from the date of submission of Technical Bid**). IITR wants all active devices/items to have at least 7 years of support & warranty **from the date of installation**. Bidder shall revisit this to ensure the above before accepting the Purchase Order (PO). An undertaking to be submitted. The proposed appliances must be the latest in their respective product lines.

**[To be submitted as Annexure No: 40]**

41. Emission levels (if applicable) for all devices/items proposed must meet the Standard Safety Emission Guidelines and must not violate National Radiation Safety Limits (as applicable). An undertaking to be submitted.

**[To be submitted as Annexure No: 41]**

42. Bidder must provide Project Management Software to manage and monitor the project from day one during the execution of the project. An undertaking to be submitted.

[To be submitted as Annexure No: 42]

43. Bidder must provide

- a. a Complaint Management Software (CMS) to raise tickets against complaints.
- b. a Resource Management Software (RMS) to manage deployed man power and to demonstrate that the quality of support meets the Service Level Agreement (SLA).

Both should be available in the form of Desktop App (through browser) as well as in the form of Mobile app (for both Android & IOS). Server space will be provided by IITR (if required) and sign off regarding CMS functionalities would require to be taken from IITR. The ownership will lie with IITR and bidder would maintain them under the guidance of IITR for existing functionalities & for implementing new functionalities (if required) throughout the support period. This will be considered as one of the mandatory requirement for project signoff and shall be made available from day one of the project support cycle. An undertaking to be submitted.

[To be submitted as Annexure No: 43]

**Note: 42 & 43 (a, b) may come (all or some) as single software with all functionalities**

44. Prior approval shall be taken from IITR whenever a human resource is deployed at site for support to verify and validate the suitability of the candidate for the particular job. Delay if at all any if incurred due to unavailability of resources, will be unpaid and thereby Bidder shall plan accordingly to avoid any loss of pay. An undertaking to be submitted.

[To be submitted as Annexure No: 44]

45. Bidder must have Network Operations Center (NOC) with a facility to log ticket online for 24x7 support. IITR shall avail this facility in addition to the support staff deployed at site. An undertaking to be submitted.

[To be submitted as Annexure No: 45]

46. Compatibility Certificate as per ANNEXURE – A to be submitted.

[To be submitted as Annexure No: 46]

47. Please arrange to provide the self-declaration that the firm has never been black-listed from any Government Department. (State/Central Govt./ Autonomous/ PSU)

[To be submitted as Annexure No: 47]

**Note: Failing to comply with any of these terms and condition will lead to rejection of the offer**

A checklist **must be submitted** for all the above eligibility criteria in the following format:

Eligibility Criteria No	Annexure No	Submitted/Compliance (Yes/No)

A.J. ...  
 Sandeep  
 1-  
 ...  
 ...  
 ...  
 ...  
 ...



.....	.....	.....
.....	.....	.....

**5.0 DETAILS OF REQUIREMENTS**

Although the Institute is separately working out the requirement of active and passive devices / items, civil works etc. but it is very much desired that the bidder, who are declared qualified after the screening of proposals received for EOI by the institute committee, will make their own assessment of requirement of all kinds on the basis of actual visits of the site made by their engineers. After discussions with qualified bidders, the institute will finalize the bill of materials.

**6.0 PROJECT COMPLETION SCHEDULE**

This project is to be executed on turnkey basis in fast track mode (within 6 months). The institute may consider the request for extension in time for completing the project under very exceptional circumstances, and under the conditions of Force Majeure, provided such a request is made well in time.

The progress of the project will be monitored periodically and bidder's authorized officers/engineers are expected to make presentation of work completed, and future planning and strategy to overcome the obstacles (if any) for timely completion of the project.

Besides, the bidder should regularly submit Progress Reports in the Institute's Format to the Chairman during the Implementation of the Project. This is in conjunction to the requirement mentioned as part of eligibility criteria 20, Section 4.0.

**7.0 SUBMISSION OF EOI**

Interested companies may submit their Expression of Interest to implement the project of the institute along with all eligibility documents as mentioned in the Section 4 above and necessary supporting documents in a sealed cover to the undersigned by \_\_\_\_\_, 2021 by \_\_\_\_\_ .00 hrs.

19 FEB 15:00

Material Management  
**Indian Institute of Technology Roorkee**  
**ROORKEE – 247 667 Uttarakhand,**  
**India Tel.: 01332 – 284693**  
**E-mail: mmiitr@iitr.ac.in**

**Note: Institute reserves the right to accept or reject any or all EOIs in part or full without assigning any reason.**

*Handwritten signatures and initials:*  
 A.S. Mishra  
 Pandey  
 1/-  
 15/2/21  
 [Signature]  
 [Signature]  
 [Signature]  
 [Signature]

ANNEXURE – A

Bidders/OEMs are requested to visit Head, Institute Computer Centre (ICC) to understand the following use cases. They are required to demonstrate the compatibility of the proposed solution with the existing deployment of IIT Roorkee, Roorkee Campus. A Compatibility Certificate will be issued by Head, ICC only if all of the 21 use cases are passed.

COMPATIBILITY REQUIREMENTS		
Sr.	Access Points	Pass/ Fail
1	Client Roaming Between Proposed Access Points	
2	Client Roaming Between Proposed and Existing Access Points which are deployed at IITR already	
Sr.	AAA Server	Pass / Fail
3	Laptop/User with student's profile to be connected to Wireless using 802.1x protocol and authenticated with the existing data store which is deployed at IITR already	
4	Laptop/User with faculty's profile to be connected to Wireless using 802.1x protocol and authenticated with existing data store which is deployed at IITR already	
5	Laptop/User with student's profile to be connected to Wired Network using 802.1x protocol and authenticated with existing data store which is deployed at IITR already	
6	Laptop/User with faculty's profile to be connected to Wired Network using 802.1x protocol and authenticated with existing data store, Devices should be checked if it passes IIT Roorkee Posture requirements including AV, OS with existing data store which is deployed at IITR already	
7	Posture of endpoint for compliance and remediation support on Wired and Wireless network with existing data store which is deployed at IITR already	
Sr.	NMS	Pass / Fail
8	Demonstration of proposed NMS solution to manage and monitor the proposed Wired (switching) Network	
9	Demonstration of proposed NMS solution to manage and monitor proposed Wireless Network	
10	Demonstration of proposed NMS solution to be able to manage both wired and wireless points	
11	Demonstration of proposed NMS solution to be able to manage both switches as well as access points	
12	Demonstration of proposed NMS solution to be able to manage and monitor Existing Wired switching network which is deployed at IITR already	

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13	Demonstration of proposed NMS solution to be able to manage and monitor Existing WLC and Access Points which are deployed at IITR already	
<b>Sr.</b>	<b>Switching</b>	<b>Pass / Fail</b>
14	Demonstration of stacking support for switches for Proposed Access Switches, and stacking bandwidth	
15	Demonstration of stacking support for switches for Existing Access Switches and stacking bandwidth which are deployed at IITR already	
16	Demonstration of stacking support for switches for Proposed Distribution Switches and stacking bandwidth	
17	Demonstration of stacking support for switches for Existing Distribution Switches and stacking bandwidth which are deployed at IITR already	
<b>Sr.</b>	<b>Automation and Flow Details</b>	<b>Pass / Fail</b>
18	Demonstration of integration with the Network Behavior Analysis that is deployed in IITR	
19	Demonstration of capturing session and packet capture with filter and sort options	
20	Demonstration of capturing ALL sessions	
21	Demonstration of capturing ALL packets	

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