National Insurance Academy

25, Balewadi, Baner Road, NIA P.O., Pune 411 045
Tel: 020-27204000/4444
Website: www.niapune.org.in

Through Online Mode Only
NIA E-PROCUREMENT WEBSITE IS :
https://www.tenderwizard.com/NIA

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E-TENDER FOR

"SUPPLY AND INSTALLATION OF Wi-Fi AT NATIONAL INSURANCE ACADEMY, PUNE"

No. **NIA/CC/ENQ/2025-26/004** dated 23/01/2026

National Insurance Academy, Pune, (NIA), an autonomous Institution established by the Life Insurance Corporation of India, General Insurance Corporation of India and the four Public Sector General Insurance Companies (The New India Assurance Company Limited, National Insurance Company Limited, Oriental Insurance Company Limited and United India Insurance Company Limited) , is having its office at 25, Balewadi, Baner Road, NIA P.O., Pune 411045.

NIA invites e-tender through advertised tender enquiry from firms or Companies which fulfil the criteria specified in the Tender Document for the **"SUPPLY AND INSTALLATION OF Wi-Fi AT NATIONAL INSURANCE ACADEMY, PUNE"** as per the details given in the Tender Document.

The details of the Eligibility Criteria, Terms and Conditions, Scope of Work and other details are furnished in this Tender. This document with all its Annexures has to be considered as one Tender Document, and the Bids submitted should be in conformity with this Tender Document.

DIRECTOR
NATIONAL INSURANCE ACADEMY, PUNE

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1. Information and Instructions to the bidders

Key Dates: Date of viewing of Online Tender Document	From 23/01/2026 , 11.00 A.M To 16/02/2026 5.00 P.M.
Cost of Tender Document	Nil
Pre-bid Meeting and Site Visit	03/02/2026 Time 11.00 A.M.
Last date for pre-bid queries	04/02/2026 6.00 P.M.
Corrigendum, amendments if any.	Will be declared on e-tendering portal
Last Date, time for online submission of tender	16/02/2026 5.00 P.M.
Date & Time of Opening of Pre-Qualification bid	17/02/2026 11.00 A.M.
Date & Time of Opening of Technical bid	25/02/2026 at 11.00 A.M
Date & Time of Opening of Price bid	Will be intimated at a later date to the Bidders, who qualify in the Technical Evaluation
Validity of the Tender	90 Days (Three Months) from the last date for submission of the Bid
e-Tender Processing Fees: (To be paid through online e-Payment Gateway on e-Procurement Portal by bidders, applicable in case of submission of tender)	**e-Tender Processing Fees are applicable & Non-Refundable.**
EMD : Rs. 3,00,000/-	**The EMD is non-interest bearing and is refundable to unsuccessful bidders after signing of the Contract by the successful bidder. No exemption will be granted.**
	DIRECTOR

- All documents need to be submitted online and no hard copy should be submitted to NIA. If required, NIA may ask for hard copy for verification of uploaded documents.
- Bidders are advised to go through the User Manual which is available on https://www.tenderwizard.com/NIA.

2. Guidelines for using online electronic tendering system (eTS).

Special Conditions & instructions for using online Electronic Tendering System (eTS) through portal (website) http://www.tenderwizard.com/NIA **adopted by National Insurance Academy, Pune as given in the subsequent pages will over-rule the conditions stated in the tender documents, wherever relevant and applicable.**

Bidders are required to enrol for Vendor Registration on the NIA e-Procurement Tender wizard Portal **(URL:** https://www.tenderwizard.com/NIA **)** by clicking on the link **"Registration"** on the home page of e- Portal which is chargeable. **(Rs.1000/- + GST (18%) (Non-Refundable)** to be paid online e-payment gateway).
Note: The e-Payment Gateway are available on e-Procurement Portal for making the Online Vendor Registration Payment.

Note: Information about e-Procurement Portal.

More information useful for submitting online bids on the NIA e-Procurement Tender wizard Portal may be obtained at: https://www.tenderwizard.com/NIA . **N.B:** Bidders are requested to refer to the Vendor's manual by downloading the Vendor's Manual by visiting on home page of https://www.tenderwizard.com/NIA and following KEY INSTRUCTIONS for BIDDERS by clicking on **Latest Circulars/Formats/Help Manuals/FAQs". The complete Step by Step Vendors Help Manual For e-Procurement / e-Tendering Process, Vendors Registration Process, System Settings Requirements & JAVA Settings Manuals, e-Payment Guidelines & Digital Signature Certificate Process** are available on e-Auction Website regarding the e-Auction.

Note: Online Support / Web Support / E-Mail Support / Phone Support are also available for Bidders as well as Dept. Officials. Online support through "Team viewer" or "Ammy Admin "Remote software only. For Downloading this software, the downloading software links are available on home page of e-Auction Website.

• **Registration of the Contractors/Bidders:** All the Contractors intending to participate in the tenders floated online using Electronic Tendering System (ETS) are required to get registered on the e-Tender Portal (website) http://www.tenderwizard.com/NIA. After successful Registration on above mentioned portal contractor will get a User ID and Password to access the website.

• **Viewing of Online Tenders:** The contractors/bidders can view tenders floated on online Electronic Tendering System (ETS) hereinafter referred as "e-Tendering System" through portal (website) at http://www.tenderwizard.com/NIA. They can view the details like Tender Notice, Terms and Conditions, drawing (if any) and any other information. To download through they need to login on to the above portal and can download the tender documents of an e-Tender.

• **Key Dates:** The contractors/bidders can view the Online Scheduled dates of e-tendering System (time schedule) hereinafter referred as **"Key Dates"** for all the tenders floated using the online electronic tendering system on above mentioned portal
(Website) http://www.tenderwizard.com/NIA

The bidders are strictly advised to follow dates and time as mentioned in Key Dates of a particular tender. The date and time will be binding on all the bidders. The bidders are required to complete the stage within the stipulated time as per the schedule (Key Dates) to continue their participation in the tender. All online activities are time tracked and the system enforces time locks that ensure that no

activity or transaction can take place outside the start and end dates and time of the stage as defined. The bidder should ensure that the status of a particular stage should be shown as "Completed" before the expiry date and time of that particular stage and they should possess a copy of receipt of completion of each stage to be performed from their end which should match with the status with their offer on online portal. It will be the sole responsibility of the bidder if the status of a particular stage is "Pending" till the expiry date and time of that stage and he will not be able to proceed further in the e-Tendering process. The Key dates are subject to change in case of any amendment in schedule due to any reason stated by the department.

• **Obtaining a Digital Certificate and its Usage**: On e-Tendering System the bids should be Encrypted and Signed electronically with a Digital Signature Certificate (DSC) to establish the identity of the bidder on online Portal. The Digital Signature Certificate (DSC) has two keys i.e. Public Key and Private Key. The Public Key is used to Encrypt (code) the data and Private Key is used to decrypt (decode) the data. The Encryption means conversion of normal text into coded language whereas decryption means conversion of coded language into normal text.

Note: Digital Signature Certificates: Class II/III Signing + Encryption Digital Signature Certificate is required for e-Tendering. (DSCs) are issued by an approved Certifying Authority, by the Controller of Certifying Authorities (CCA India), Government of India.

• The contractors may obtain Class II/III digital certificate from any Certifying Authority or Sub certifying Authority authorized by the Controller of Certifying Authorities on the portal http://cca.gov.in. or may obtain information and application format and documents required for issue of digital certificate from our Service Provider for Electronic submission.

E-Tendering System (ETS):
E-Tender helpdesk
#24, Sudha Complex,
03rd Stage, 04th Block,
Basaveshwaranagara,
Bangalore - 560079
dscprocessingunit@yahoo.com
Help Desk Contact Details:
Tel: 080-40482000/121/133/140
Mobile: 9686115304/9686115323
E-mail: lokesh.hr@antaressystes.com
raghuprashanth@antaressystems.com

• The Bid (Online Offer) for a particular e-Tender may be submitted only using the Digital Signature Certificate (DSC), which is used to Encrypt (codified) the data and sign the Hash (Impression of your data) during the stage of Bid Preparation and Hash submission. In case, during the process of a particular e-Tender, the user loses his Digital Certificate (i.e. due to virus attack, hardware problem, operating system problem), he may not be able to submit the bid online. Hence, the users are advised to keep their Digital Signature Certificates in safe custody.

• In case of online Electronic Tendering, if the Digital Certificate issued to the authorized user of a firm is used for signing and submitting an online bid, it will be considered equivalent to a no objection certificate/power of attorney to that User. The firm has to authorize a specific individual via an authorization certificate signed by all partners to use the Digital Certificate as per Indian Information Technology Act 2000 and its amendments. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of agency for NIA, as per Information Technology Act 2000 and its amendments. The Digital Signature of this authorized user will be binding on the firm. It shall be the responsibility of management / partners of the registered firms to inform the certifying authority or Sub Certifying Authority; in case of change of authorized user and that a fresh

digital certificate is procured and issued an "Authorization Certificate" for the new user. The procedure for application of a Digital Certificate will remain the same for the new user.

• The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

• Bidders participating in e-tendering shall check his/her validity of Digital Signature Certificate before bidding in the specific work floated online at the e-Tendering Portal (website) through http://www.tenderwizard.com/NIA.

NOTE:-
NIA AND TENDERWIZARD will not entertain any reasons/claims of bidder on account of Net Connection Failure/Current Connection Failure and any issues during the submission of tender online. Tenderer shall be solely responsible for all those facts and failure of Net Connectivity, Electricity Current Connectivity etc.

For Registration and for further details on e-tendering, please visit website above mentioned portal (website) or below mentioned address:-

E-Procurement Helpdesk Officials details.
Office Address:- E-Tender helpdesk, # 24, Sudha Complex, 03rd Stage,04th Block, Basaveshwaranagara, Bangalore – 560 079

Help Desk Contact Details: -

1) **Mr. Sanjay K. Chandak, (Pune & Mumbai Maharashtra) (E-mail : sanjay.kc@antaressystems.com) Or sanjay.kc@etenderwizard.com Ph: 9665721619.**

2) **Mr. Lokesh, (E-mail: lokesh.hr@antaressystems.com) Ph: 09686115304 & 080-40482140**

3) **Mr. Raghu Prashant, (E-mail:raghuprashanth@antaressystems.com) Ph: 09686115323**

4) **Mr. Vinay B P (E mail: vinaybp@antaressystems.com)**

3. Eligibility Criteria of the Bidder

The Academy will evaluate the bids and select the bidder which satisfies all the criteria listed below:

1. The bidder must be a Company registered under the Companies Act. A copy of the Certificate of Incorporation must be submitted.

2. The Bidder should be Authorized System Integrator (SI) of Wi-Fi networks or Authorised Supplier or Distributor of OEM. (Letter of Authorisation from OEM to be uploaded from Authorised supplier or Distributor or System Integrator).

3. The Bidder should have average turnover of ₹3 crores at the minimum during the last three financial years (2022-23, 2023-24, 2024-25) and should have made net profit in two out of the last three financial years (2022-23, 2023-24, 2024-25). (CA Certificate OR Balance Sheet and Profit and Loss statement of last three Financial Years certified by CA to be uploaded) .

4. The Bidder should have undertaken at least three projects for installation and maintenance of wireless network during the last three years. Out of the completed projects, at least two should be of centralised controller with 75+ access points. Work Order Copies in last three years 2022-23, 2023-24, 2024-25 latest till 31.12.2025 need to be enclosed in the technical bid.

5. The bidder must have successfully executed at least **one Wi-Fi project of 75+ Access Points in an Educational Institute** (University / College / Hostel Campus) during the last **three years**, supported by work order and completion certificate

6. The bidder should have a team of qualified and experienced engineers. Details of minimum 5 engineers to be provided mentioning List of certifications such as CCNA, CWNA and their experience etc.

7. The Bidder should have a service centre in Pune/Mumbai. Address proof of Service Center address to be provided.

8. OEM should have at least 5 partners in Pune for AMC support after warranty period. List of 5 partners in Pune with contact details on Company's Letterhead from OEM to be provided.

Bids from bidders who do not qualify based on the above criteria will not be considered for further evaluation.

Bidder will require to fill up Annexure 1 and Annexure 2 (Pre-Qualification Bid Format) and upload all the required documents to fulfil the eligibility criteria.

1. Certificate of Incorporation
2. Authorisation Letter from OEM of Access points, Controller and Network Switches.
3. CA Certificate and Audited Balance sheet and Profit and loss statements for financial years   2022-23, 2023-24, 2024-25
4. Purchase order copies of at least 3 projects undertaken in last 3 years.
5. Work order copy and completion certificate of Wi-Fi project implemented in Educational Institute with more than 75 Access Points.
6. Name of engineers and certification details of at least 5 engineers on Company's Letterhead mentioning List of certifications such as CCNA, CWNA etc. and their experience.
7. Address Proof of Service Center in Pune
8. List of 5 partners in Pune with contact details on Company's Letterhead from OEM.
9. PAN Card copy
10. GST Certificate
11. Affidavit duly certified by the notary that the firm has never been black listed as per format given in Annexure-6.
12. Non Disclosure Agreement as per format given in Annexure -7
13. Details mentioned in Annexure-9 certified by OEM – in PDF format.

4. General Terms & Conditions

1. The Bidder submitting his bid would be deemed to have considered and accepted all the terms and conditions of Tender. No verbal or written enquiries shall be entertained in respect of acceptance or rejection of the Tender.
2. It is mandatory for the bidder to quote for all the items mentioned in the Tender.
3. Bidder will have to fill up Pre-Qualification, Technical and Price bids and will have to upload all required documents.
4. **Pre-Bid Queries :**

   Pre-bid queries should be submitted by e-mail to ssdeshpande@niapune.org.in with a copy to amol@niapune.org.in before 05/02/2026 before 5.00 pm.

   Responses to Pre-Bid Queries and Issue of Corrigendum:

i. NIA will endeavour to provide timely response to all valid queries. However, NIA makes no representation or warranty as to the completeness or accuracy of any response made in good faith, nor does NIA undertake to answer all the queries that have been posed by the bidders.

ii. At any time prior to the last date for receipt of bids, NIA may, for any reason, modify the Tender Document by a corrigendum.

iii. The Corrigendum (if any) & clarifications to the queries from all bidders will be posted on the websites: https://www.niapune.org.in and https://www.tenderwizard.com/NIA on or before 10/02/2026.

iv. Any such corrigendum shall be deemed to be incorporated into this tender document.

v. In order to provide prospective bidders reasonable time for taking the corrigendum into account, NIA may, at its discretion, extend the last date for the receipt of Proposals.

5. **Tender Evaluation Criteria**: Tender Evaluation will be based on **Pre-Qualification, Technical** and **Price bids** submitted by the bidder.

Pre-Qualification bid consists of following parts
a. Annexure 1: Pre-Qualification bid format
b. Annexure 2: Format of Experience certificate

Technical bid consists of following parts
a. Annexure 4: Technical Specifications (Excel file)
b. Annexure 5: Design and Implementation Plan (Excel file plus PDF mentioning technical implementation details)
c. Annexure 6 : Affidavit of not blacklisted firm (PDF File)
d. Annexure 7 : Non-Disclosure letter to be provided on Company's Letterhead (PDF file)
e. Annexure 9 : Technical Details of Solution proposed by Wireless vendor (PDF with sign and stamp regarding technical details to be provided by bidder certified by OEM)

Price Bid consists of
a. Annexure 3: Price Bid
b. Annexure 3A : Buyback price bid

Technical bid evaluation criteria
a. Bidder should satisfy all criteria mentioned in Section 3 - Eligibility criteria of the Bidder.

b. Only those Bids which qualify based on the eligibility criteria will be taken up for Technical Evaluation.

c. Technical Bids fulfilling the TECHNICAL SPECIFICATIONS of the product mentioned in Annexure 4 will only be considered for Technical Evaluation

d. All Technical Bids will be submitted to a Technical Evaluation committee. The TEC will consider and rank Technical bids and evaluate them according to the Marking scheme for evaluation of tenders, which is available in Annexure 8.

e. Price Bids of only those Bids with a Technical Score of more than or equal to 60% would be taken up for further process.

f. The quantity mentioned in the Price Bid Form in Annexure 3 is an estimated quantity. However, it should not be altered, as that quantity will be the basis for bid evaluation. The actual quantity to be ordered may vary by +/- 10%.

Price Bid Evaluation Criteria

a. **Bidder has to submit price of new devices in Annexure-3 and buyback price as per the format given in Annexure 3-A also. Commercial bid submitted for any single operation shall be treated as rejected**.

b. Bidders are requested to upload data sheet of models specified in price bid.

c. NIA will select the bidder on the basis of total price of new devices after deducting the buyback price quoted by the respective bidder.

d. No. of Buyback devices may vary depending on the actual count. Bidders must accept the buy-back devices in their existing 'As-Is' condition.

6. Director, NIA, Pune, reserves the right to reject any Bid if the bidder gives any wrong information to create conditions for acceptance of the Bid. Not more than one Bid will be submitted by one bidder for the same work.

7. The successful bidder shall be required to execute a formal contract on Rs. Five hundred non-judicial stamp paper within one week of the issue of offer for contract and shall start the project on a date specified in the offer letter.

8. **STAMP DUTY**: - Stamp duty leviable on agreement to be executed between NIA, Pune and Successful Bidder shall be borne by the successful Bidder.

9. The successful Bidder shall be liable to pay compensation for any loss or damage caused to the property of the Academy.

10. **WARRANTY :** Bidder should provide 3 years manufacturer's comprehensive warranty on all the equipment including the accessories supplied as per the technical specification mentioned in the bid. The bidder should carry out firmware update and also provide support for Hardware. Warranty period should start after installation and configuration of all equipment.

11. The successful bidder shall deliver the material exactly as per the make and model stated in the price bid. Delivery of any alternate or substitute brand will not be permitted.

12. **Delivery Period:** The successful bidder has to deliver the material within 6 weeks after getting the purchase order.
13. All loading, Unloading and transit insurance of material to be delivered is in the bidders scope.
14. **Penalty :** If the material is not delivered within 8 weeks, per day 0.05% of total cost of work order will be deducted from the payment of first installment.
15. **Work Completion Period :** The work of installation , commissioning and testing should be completed in 30 working days post delivery. In case of delay, per day 0.05% of total work order will be deducted from the payment of second installment.
16. NIA has the right to terminate the contract with the successful bidder in the following situations
    a. The material relating to the project is not delivered within the specified time lines
    b. The material delivered is not as per specification mentioned in this tender document
    c. Non-performance or unsatisfactory performance of work executed by the successful Bidder.
    d. Any other breach of conditions mentioned in this tender document.

17. If the Academy has to terminate the contract with successful bidder Academy has a right to award the work to other party.

18. Installation and Testing should be done in stipulated time mentioned in Point no. 14 Work Completion Period.
19. The successful Bidder will be responsible for any accident or mishap or death of workers engaged by them and any claim made on this account will be paid by the successful Bidder, who will also indemnify the Academy from any claim in this regard.
20. All the Passive and Active components used for this project should be as per industry standards. Substandard components shall not be accepted in any case.
21. Taxes should be as per the Govt. norms
22. Special discount/rebate admissible to Educational Institution/University may be specifically indicated in the Price Bid.
23. The bid would be valid for 90 days from the last date for submission of the Bid. In the case of successful Bidder , rates quoted shall be valid till the supplies are completed unless there is downward revision, in which case the benefit shall Suo moto be transferred to NIA
24. Suggested product should not be end of Support and end of Sales within next five years from the date of supply. During the warranty period if any product is declared end of life or end of support, the bidder should supply next higher model free of cost.
25. On completion of the installation, Successful Bidder has to submit testing reports for successful implementation with respect to tender requirements. The same will be tested and validated by our committee.

26. Successful bIdder has to provide valid insurance coverage, such as liability insurance and workers' compensation insurance

27. **EARNEST MONEY DEPOSIT (EMD) and Performance Security**
    a. Bidders are required to submit Rs.3,00,000/- (Rupees Three Lacs only) as EMD for the bids. e-Payment Gateway Facility are available on NIA e-Procurement Site. The bidders should have to pay EMD only by e-Payment Gateway. Payment by any other mode will not be accepted.
    b. The EMD is non-interest bearing and is refundable to unsuccessful bidders after signing of the contract by the successful bidder. **No exemption will be granted.**
    c. The Successful bidder has to submit Bank Guarantee of 5% of the accepted tender cost (excluding tax) from Nationalised /Scheduled bank which should be valid for a period of 90 days beyond the completion of all contractual obligations of the supplier including comprehensive warranty i.e. 3 years and 90 days. Bank Guarantee is to be forfeited and credited to the Academy in the event of breach of contractual obligation by the supplier, in terms of relevant contract.
    d. The successful Bidders EMD will be returned after getting the Bank Guarantee.
    e. The EMD will be forfeited if a bidder withdraws his bid during the period of validity.

28. **Payment Terms :**

    Payment shall be made in Indian Rupees in the following manner:

    a) **On delivery: 30**% payment of the contract price shall be paid on receipt of all goods in good condition and upon the submission of the following documents:

    i) Four copies of supplier's invoice showing contract number, goods description, quantity, unit price and total amount;

    ii) Two copies of packing list identifying contents of each package;

    b) **After Installation: 30**% payment will be done after installation and configuration.

    c) Another 30% payment will be paid 30 days after installation, configuration and subject to test reports on performance is satisfactory.

    d) Balance 10% amount will be paid after submission of bank guarantee as per conditions specified in clause no. 26.C of this tender document.

29. **DISPUTE: -**
    a. If any dispute or difference arises between the parties relating to or concerning the interpretation of the contract or any alleged breach thereof or any matter relating to the contract, the same shall be settled by the parties as far possible by mutual discussion and consultation between themselves, whether the same has arisen during the subsistence of the contract or thereafter.

b. In the event of any dispute or difference arising in connection with the contract arising out of this tender whether during the subsistence of the contract or there after not being settled in aforesaid manner, the matter shall be referred to the Director, NIA, Pune or his nominee not below the rank of Chair Professor whose decision shall be final and binding on both the parties.

c. The courts of Pune shall have exclusive jurisdiction in all matters arising out of this Tender.

d. NIA reserves the right to reject any or all offers received in response to this Tender or cancel or withdraw the Tender notice without assigning any reason, whatsoever.

30. NIA reserves the right to amend or withdraw any of the terms and conditions contained in the Tender Document including quantity/amount of items to be supplied or to reject any or all tenders without giving any notice or assigning any reason. The decision of the Director, NIA in this regard shall be final.

5. Current status of NIA network

NIA network infrastructure comprises a wired network utilizing both fiber optic and copper cabling, interconnected through a combination of 1 Gbps and 10 Gbps Ethernet switches, and secured by a firewall. Internet access is provided through two WAN links with bandwidths of 200 Mbps each. An IP based telephone system is also integrated into the network.

Current Usage

The network is primarily utilized for accessing internet based services, such as websites, video streaming platforms (e.g., YouTube), Video calling and email. Internally, it supports services like user authentication via Active Directory, and connectivity to networked printers and scanners. There are no bandwidth intensive applications hosted on the internal network.

Wired Network

The wired network spans the entire NIA campus, which includes administrative buildings, library, residential areas, class rooms and hostels etc. with approximately 700 wired network points. It is structured around three main locations Server Room, Drucker IT Park and Jubilee Park, interconnected using 10 Gbps single mode fiber ring. Additional network switches at other locations are linked to these distribution locations through a 10 Gbps fiber backbone, with a few exceptions.

Staff desktop computers are connected to the network through IP phones, which support 100 Mbps Ethernet ports.

Wireless Network

A campus wide wireless network has been deployed to provide coverage across key areas. This network consists of a mix of indoor and outdoor access points, centrally managed by hardware based wireless controller. The wireless infrastructure connects to the wired network and currently consists of 76 indoor and 26 outdoor access points.

To enhance coverage and wireless speed, existing access points are to be replaced, and additional Indoor / Outdoor Access Points and per room access points for Hostel Buildings are to be installed. The wireless controller is configured to manage VLAN segmentation across the network, functions as a DHCP server, and is used to implement Access Control Lists (ACLs) for inter VLAN traffic control.

Firewall

A firewall is deployed to manage the two internet links (200 Mbps each) and enforce network security policies.

Summary

Throughout this document, the term NIA Network refers to the entire network infrastructure, encompassing wired and wireless components.

Considerations for future expansion

In addition to proposed campus wireless, NIA may require to extend this network to accommodate

- Additional devices and computers connected to wired and wireless network
- Additional areas to be covered by campus wireless network

6. Summary of requirements

NIA network requires to be upgraded with various considerations such as Need to incorporate additional wireless users, Cover additional areas under wireless, Upgrade wireless connection speed available to users etc.

The requirements of this project are primarily categorized in supply, installation, commissioning and onsite support for:

- Wireless Access Points
- Centralized Control for Wireless Access Points, NIA Internal users and Guests
- Copper and Single Mode Fiber Network Cabling with conduit pipe / casing caping, HDPE pipes and Network Racks
- Wired Network PoE Switches
- Uninterrupted Power Supply for Network Racks

Following sections of this tender details detailed project requirement which include Technical specifications, Network security, Project management, Documentary requirements, Training, etc.

Approximate bill of material (BoM) is included in commercial section of this tender. Vendors are encouraged to review the BoM and existing setup prior to submitting the proposal.

Requirements from the perspective of design and implementation are as follows:

Types and quantities of Wireless Access Points are as follows:

No.	Type of Wireless Access Point	Quantity
1.	2X2 MIMO Internal Access Points	345
2.	4X4 MIMO Internal Access Points	11
3.	2X2 MIMO Outdoor Access Points	23
	TOTAL :	379

All the wireless access points should be compatible with 802.3af or 802.3at PoE Power source.

Refer to Annexure-4-A for minimum Technical specifications of Wireless Access Points.

Number and location of Access Points required to be implemented for this project are already mentioned in section 8.1 and 8.2 .

7. Scope of work

No.	Area	Requirement
1.	Wireless Network	- Areas to be covered by wireless - NIA Buildings: IT, Admin, Faculty, Library, Drucker, Hostels 1 to 5, Jubilee Park, Convention Center, Director Residence - Open area to be covered, as marked in NIA campus layout is: Tea Garden, Party Lawn, Amphitheater, Area outside Dining and reception, Garden Area outside Director's Bungalow, China Dome - All remaining open areas from the layout do not require any specific consideration, and whatever coverage received from by the signal available from the nearby Access point is accepted. - Support for Video calling using various software such as Microsoft Teams Call, Zoom Call, WhatsApp Call, WebEx Call, etc. and Internet browsing, and Seamless roaming access throughout the coverage area, with suitable signal strength. - Centrally managed, SNMP Enabled, PoE Wireless Access Points - Replacement of all access points and installation of new access points to cover additional areas such as Syndicate 1 and 2, Boys and Girls common room near Lecture Hall 3 and 4 respectively, Library First Floor and Ground Floor. - Support for Total 3600 wireless users, where maximum concurrent Wireless users will be 1100, distributed through NIA campus in addition to 150 existing wired users.

No.	Area	Requirement

2.	Centralized control on Wireless Access Points and User management	• Centralized control for 400 access points, upgradable to 750.
		• Functionality to automatically balance the load amongst the access points for optimized performance.
		• Compatibility of AD server for User, Group, Bandwidth management and Network Segregation:
		  o AD integration.
		  o Implementation of bandwidth policies based on the user's AD groups.
		  o Dynamically assigning VLANs based on AD groups.
		• Integration with external SMS gateway.
		• Availability of event logs.
		• Report for User Activity log and User wise bandwidth utilization.
		• Encrypted access to administration using HTTPS and / or SSH protocol.
		• Guest management system with function to allow guest access for limited duration of time, provisioning bandwidth allocated to guest users, Real time monitoring for User Sessions, Identification of AP where each user is connected, Client connection logs, Session duration, etc.
		• Features required if the solution includes On-Prem controller:
		  o Support for High Availability (HA).
		  o Fiber Port for 10Gbps connectivity for hardware controller.
		  o 10 Gbps Network Throughput
		  o 1 TB Controller Storage at a minimum.
		  o Support for SNMP protocol for centralized monitoring.
		  o Configuration Backup and restoration
		  o Firmware updates during warranty period.

3.	Fiber Cabling	Outdoor Armored 12 Core SM Fiber Cabling: • Jubilee Park to Conference Hall : 300 meter • Jubilee Park to Director Residence : 350 meter Termination of Fibre cable of each location with slicing. Testing of existing fiber cables and numbering. **Backbone:** • 10G Fiber Backbone for all other Network Switches used for WiFi. • 10G Fibre/Copper Backbone for network switches within same network rack. All fiber cables should be armored.

No.	Area	Requirement
5.	Copper Cabling	Indoor Cat-06a 23 Gauge Plenum network cabling at following locations: • All indoor new Wireless Access Points throughout the campus from corresponding nearby network racks. • Different colored cables for Switch to Switch Uplinks, and IT network. • Numbering/Renumbering of all cables. • Replacement of cables used for outdoor access points if required • Wherever required, replacement of existing faulty cables with new cables along with necessary crimping and testing. • All existing unused / damaged cables to be removed. • Re-crimping of cables wherever required Outdoor Cat-06a Armored network cabling for all outdoor Wireless Access Point locations from corresponding nearest network rack. • Crimping of copper cables

6.	Network and Access Control	• Existing 10 GB Fiber Loop 'Server Room – Drucker IT – Jubilee Park – Server Room' will be shared by all Data network traffic.
		• VLANs for wireless users (Refer Section 12.2 for more details).
		• Implementation of:
		   o Internet access control, bandwidth control and QoS for Internal Staff, Student & Admin users, Internet enabled devices and Wireless Guest users.
		   o Inter VLAN access controls.
		   o Configuration of new and existing switches for VLAN and other required features.
		   o Access from the Internet to On-Prem Servers by configuring DMZ (if required).
		• 10 GBPS Internet bandwidth to support 1250 concurrent users consisting of 1100 wireless and 150 wired users @ 8 MBPS per user.
		• Configuration of Firewall:
		   o Implement access controls Internal network to Internet.
		   o Control on Internet bandwidth.
		   o QoS for Video calls
		
		Implementation partner may suggest effective place to implement ACLs based on the proposed solution. For example, the device to configure ACLs may differ for Cloud based controller and On-Prem controller.

7.	Uninterrupted Power Supply for Network Racks	• UPS to provide power to all network racks and equipment therein for 20 minutes backup time. • For Hostel buildings 1, 2 and 4, UPS should be installed on the FF, and should support Network racks and equipment on GF, FF, and SF for Hostel 1 and 2.

No.	Area	Requirement
8.	Implementation	• Supply, installation, commissioning and testing of Wi-Fi system including UPS. • Integration of new Wi-Fi network in the existing network. • 3 warranty on new supply and 3 year onsite support. • During the 3 year support period, existing network switches to be covered for troubleshooting and configuration.

9.	Buyback of existing hardware	• Buyback of existing network hardware:
		  ○ 70 X Indoor UniMax UM310AC access point
		  ○ 26 X Outdoor UniMax UM510AC access points
		  ○ Unibox Wireless controller
		  ○ 6 X Netgear WAC 540 Indoor Access Points

10.	Network Monitoring	Implementation of Network Monitoring solution for 750 devices consisting of Wireless Access Points, Network Switches, On-Prem Controller and identified servers. Procurement of this item is optional, and will be decided by NIA at actuals.
11	Civil Work	Digging/Trenching etc. as per the requirement
12	Other	Any other material and work required for implementation of this project

After completion of the project , successful bidder has to submit comprehensive Schematic diagram of the implemented Network Setup.

Legend:

- **GF: Ground Floor**
- **FF: First Floor**
- **SF: Second Floor**

8. Wireless Network and Users

8.1 Wireless Access Points

Types and quantities of Wireless Access Points are as follows:

No.	Type of Wireless Access Point	Quantity
1.	2X2 MIMO Internal Access Points	345
2.	4X4 MIMO Internal Access Points	11
3.	2X2 MIMO Outdoor Access Points	23

All the wireless access points should be compatible with 802.3 af or 802.3 at PoE Power source.

Refer to Annexure 4: A. Technical specifications of Wireless Access Points

8.2 Location wise Access Points

Location-wise type and quantity of Wireless Access Points to be installed along with the corresponding back end network rack, Per AP Users, Total users per access point are provided in the following chart.

Sr. No.	Location	Type of AP	Current Rack	Quantity	Users Per AP	Total Users
1	Out_Hostel 3_Parking	Outdoor 2X2	Hostel 3 GF	1	15	15
2	Out_Hostel 3_Backside	Outdoor 2X2	Hostel 3 GF	1	10	10
3	Out_Hostel_4 Road Side1	Outdoor 2X2	Hostel 4 FF	1	15	15
4	Out_Hostel_4 Road Side_2	Outdoor 2X2	Hostel 4 FF	1	15	15
5	Out_JUBLEE (APJ Stage)	Outdoor 2X2	Jubilee Park	1	100	100
6	Out_Hostel 4 Front EG 1	Outdoor 2X2	Hostel 4 FF	1	15	15
7	Out_COMF_HALL	Outdoor 2X2	Conf. Hall	1	100	100
8	Open Cafeteria	Outdoor 2X2	Admin Block FF	1	20	20
9	Out_H5 Girls Wings Front	Outdoor 2X2	Hostel 5 BW GF	1	15	15
10	Out_H5 Girls Wings Road Side	Outdoor 2X2	Hostel 5 BW GF	1	15	15
11	Out_H5 Boyes Wings Front Side	Outdoor 2X2	Hostel 5 BW GF	1	15	15
12	Spare	Outdoor 2X2				
13	Wardens room in Hostel 5 GW indoor	Internal 2X2	Hostel 5 BW GF	1	15	15
14	Library Back Side Party Lawn	Outdoor 2X2	Library	1	10	10
15	Out_Boyes_Canteen1 (inside canteen)	Outdoor 2X2	Hostel 5 SF BW	1	30	30
16	Out_Boyes_canteen2	Outdoor 2X2	Hostel 5 SF BW	1	15	15
17	Out_Hostel 4 _BACK_EG	Outdoor 2X2	Hostel 4 FF	1	15	15
18	Out_MDP Rece_ Back for h2	Outdoor 2X2	Hostel 2 FF	1	10	10
19	Out_MDP_Rece_Frount_h3	Outdoor 2X2	Drucker	1	15	15

20	OUT_H1 _Green leaf rack	Outdoor 2X2	Drucker	1	10	10
21	Out_Director Cabin_ UP	Outdoor 2X2	Admin Block FF	1	15	15
22	Out_Faculty Block_152	Outdoor 2X2	Faculty Block	1	10	10
23	Out_Faculty Block_134	Outdoor 2X2	Faculty Block	1	10	10
24	ITpark	Internal 4X4	Server Room	1	50	50
25	Drucker IT PARK	Internal 4X4	Drucker	1	40	40
26	Lecture hall 7 Inside	Internal 4X4	Lecture hall 7	1	100	100
27	Tea Longue	Internal 4X4	Faculty Block	1	100	100
28	Lecture hall 8 Inside	Internal 4X4	Lecture hall 7	1	100	100
29	Conf. Hall inside	Internal 4X4	Conf. Hall	1	100	100
30	Conf. Hall inside (Motor Room)	Internal 4X4	Conf. Hall	1	50	50
31	Conf. Hall inside (Marine Lab)	Internal 4X4	Conf. Hall	1	50	50
32	HOSTEL RECEPTION	Internal 2X2	Drucker	1	15	15
33	DINING HALL LEFT (VIP)	Internal 2X2	Drucker	1	50	50
34	DINING HALL CENTER	Internal 2X2	Drucker	1	50	50
35	DINING HALL RIGHT	Internal 2X2	Drucker	1	50	50
36	Director Cabin	Internal 2X2	Admin Block FF	1	10	10
37	Boardroom	Internal 2X2	Admin Block FF	1	20	20
38	Library Outside	Internal 2X2	Library	1	10	10
39	Library inside	Internal 2X2	Library	1	10	10
40	Library_Inside2 (Library_Reception)	Internal 2X2	Library	1	10	10
41	Ground Floor Cubical to be covered	Internal 2X2	Library	2	10	10
42	First Floor cubical to covered	Internal 2X2	Library	2	10	10
43	Reading Room (GF)	Internal 2X2	Library	1	10	10
44	Reading Room (First Floor)	Internal 2X2	Library	1	30	30
45	MP Hall (Jubilee Park)	Internal 4X4	Jubilee Park	1	100	100
46	Server room IT park	Internal 2X2	Server Room	1	6	6
47	HOSTEL RECEPTION outside	Internal 2X2	Drucker	1	15	15
48	Admin Reception	Internal 2X2	Admin Block GF	1	5	5
49	Publication (Room2) (Warhady)	Internal 2X2	Admin Block GF	1	5	5
50	RA_Block 006 (Ravi Jaiswal)	Internal 2X2	Admin Block GF	1	10	10
51	RA Block 008 (Archana Singh)	Internal 2X2	Admin Block GF	1	5	5
52	Reprography (016)	Internal 2X2	Admin Block GF	1	7	7
53	Accounts(018)(Kishor Dange)	Internal 2X2	Admin Block GF	1	8	8
54	Admin FF (112)(Yogesh)	Internal 2X2	Admin Block FF	1	10	10
55	Admin FF (110) (Kulkarni)	Internal 2X2	Admin Block FF	1	10	10
56	Reflection (119) (Jayashree Madam)	Internal 2X2	Admin Block FF	1	5	5
57	Reflection Park inside	Internal 2X2	Admin Block FF	1	25	25
58	Faculty Block (137) (Kolekar Madam cabin)	Internal 2X2	Lecture Hall 7	1	5	5
59	Faculty Syndicate inside	Internal 2X2	Lecture Hall 3	1	10	10
60	Lecture hall 1 inside	Internal 2X2	Lecture Hall 7	1	40	40

61	Lecture hall 2 outside	Internal 2X2	Lecture Hall 7	1	40	40
62	Lecture hall 3	Internal 2X2	Lecture Hall 3	1	40	40
63	Lecture hall 4	Internal 2X2	Lecture Hall 3	1	40	40
64	Lecture hall 5	Internal 2X2	Lecture Hall 3	1	40	40
65	Near Girls Common room(LH3)	Internal 2X2	Lecture Hall 3	1	10	10
66	PAAD	Internal 2X2	Lecture Hall 3	1	5	5
67	Faculty Block (143) (Doss Sir)	Internal 2X2	Lecture Hall 3	1	10	10
68	Faculty Block (139) (Bipin Kumar)	Internal 2X2	Lecture Hall 3	1	10	10
69	Lecture hall 2 inside	Internal 2X2	Lecture Hall 3	1	40	40
70	Lecture hall 8	Internal 2X2	Lecture Hall 7	1	100	100
71	Lecture hall 7	Internal 2X2	Lecture Hall 7	1	100	100
72	Faculty Block 156 (patwardhan)	Internal 2X2	Faculty Block	1	5	5
73	Faculty Block 157 (Page Sir)	Internal 2X2	Faculty Block	1	5	5
74	Faculty Block 127 (V. Balagopal)	Internal 2X2	Faculty Block	1	5	5
75	Tea Lawn	Internal 2X2	Faculty Block	1	50	50
76	Conf_Hall_ Reception	Internal 2X2	Conf. Hall	1	50	50
77	Conf_Hall_Inside	Internal 2X2	Conf. Hall	1	50	50
78	Amravati	Internal 2X2	Conf. Hall	1	50	50
79	Lecture Hall_6	Internal 2X2	Lecture Hall 3	1	40	40
80	Director Banglow_1	Internal 2X2	Director Residence	1	5	5
81	Director_banglow_2	Internal 2X2	Director Residence	1	5	5
82	Director_banglow_3	Internal 2X2	Director Residence	1	5	5
83	Hostel 3 GF Rooms (Per Room)	Internal 2X2	Hostel 3 GF	15	4	60
84	Hostel 3 GF Lobby	Internal 2X2	Hostel 3 GF	2	6	12
85	Hostel 3 FF Rooms (Per Room)	Internal 2X2	Hostel 3 FF	15	4	60
86	Hostel 3 FF Lobby	Internal 2X2	Hostel 3 FF	2	6	12
87	Hostel 3 SF Rooms (Per Room)	Internal 2X2	Hostel 3 SF	14	4	56
88	Hostel 3 SF Lobby	Internal 2X2	Hostel 3 SF	2	6	12
89	Hostel 4 GF Rooms (Per Room)	Internal 2X2	Hostel 4 FF	16	6	96
90	Hostel 4 GF Lobby	Internal 2X2	Hostel 4 FF	2	6	12
91	Hostel 4 FF Rooms (Per Room)	Internal 2X2	Hostel 4 FF	16	6	96
92	Hostel 4 FF Lobby	Internal 2X2	Hostel 4 FF	2	6	12
93	Hostel 4 SF Rooms (Per Room)	Internal 2X2	Hostel 4 FF	16	6	96
94	Hostel 4 SF Lobby	Internal 2X2	Hostel 4 FF	2	6	12
95	Hostel 1 FF Rooms (Per Room)	Internal 2X2	Hostel 1 FF	14	4	56
96	Hostel 1 FF Lobby	Internal 2X2	Hostel 1 FF	2	6	12
97	Hostel 1 SF Rooms (Per Room)	Internal 2X2	Hostel 1 SF	14	4	56
98	Hostel 1 SF Lobby	Internal 2X2	Hostel 1 SF	2	6	12
99	Hostel 2 GF Rooms (Per Room)	Internal 2X2	Hostel 2 GF	14	4	56
100	Hostel 2 GF Lobby	Internal 2X2	Hostel 2 GF	2	6	12
101	Hostel 2 FF Rooms (Per Room)	Internal 2X2	Hostel 2 FF	14	4	56

102	Hostel 2 FF Lobby	Internal 2X2	Hostel 2 FF	2	6	12
103	Hostel 2 SF Rooms (Per Room)	Internal 2X2	Hostel 2 SF	14	4	56
104	Hostel 2 SF Lobby	Internal 2X2	Hostel 2 SF	2	6	12
105	Hostel 5 GF (Per Rooms)	Internal 2X2	Hostel 5 GF BW	12	6	72
106	Hostel 5 GF Girls (Lobby)	Internal 2X2	Hostel 5 GF BW	2	6	12
107	Hostel 5 FF (Per Rooms)	Internal 2X2	Hostel 5 FF BW	12	6	72
108	Hostel 5 FF Girls (Lobby)	Internal 2X2	Hostel 5 FF BW	2	6	12
109	Hostel 5 SF (Per Rooms)	Internal 2X2	Hostel 5 SF BW	12	6	72
110	Hostel 5 SF Girls Lobby	Internal 2X2	Hostel 5 SF BW	2	6	12
111	Hostel 5 GF Boys (Per Rooms)	Internal 2X2	Hostel 5 GF BW	10	6	60
112	Hostel 5 GF Boys (Lobby)	Internal 2X2	Hostel 5 GF BW	2	6	12
113	Hostel 5 FF Boys (Per Rooms)	Internal 2X2	Hostel 5 FF BW	10	6	60
114	Hostel 5 FF Boys Lobby	Internal 2X2	Hostel 5 FF BW	2	6	12
115	Hostel 5 SF Boys (Per Rooms)	Internal 2X2	Hostel 5 SF BW	10	6	60
116	Hostel 5 SF Boys Lobby	Internal 2X2	Hostel 5 SF BW	2	6	12
117	16 Cottages (Per Room)	Internal 2X2	Cottage	16	4	64
118	Boys common room	Internal 2X2	Lecture Hall 3	1	10	10
119	Girls common room	Internal 2X2	Lecture Hall 3	1	10	10
120	Tutorial 1	Internal 2X2	Lecture Hall 7	1	10	10
121	Tutorial 2	Internal 2X2	Lecture Hall 3	1	10	10
122	Tutorial 5 (People Link)	Internal 2X2	Lecture Hall 3	1	10	10
123	Clinic	Internal 2X2	Director Residence	1	4	4
124	Gymkhana	Internal 2X2	Jubilee Park	1	10	10
125	Out_Cottage Open area	Outdoor 2X2	cottage	1	10	10
126	Spare APs	Internal 4X4	None	2	0	0
127	Upavan	Internal 2X2	None	1	20	20
128	New Classroom above IT Park	Internal 2X2	None	1	40	40
129	New Classroom near Drucker IT Park	Internal 2X2	None	1	40	40
130	Spare APs	Internal 2X2	None	4	0	0

Per AP Users column specifies number of Maximum concurrent Users for that AP

8.3 Wireless and Wired Users

Following chart provides number of Wireless and Wired users. As identified by NIA, 30% of the total users per AP will be concurrent users.

Users	Total
Total Wireless Users	3545
Concurrent Wireless Users @ 30% of total wireless users, rounded to nearest 100	1100
Concurrent Wired Users	150
Total Concurrent Users	**1250**

Bidders should review the number users and bandwidth requirement provided and propose for suitable access points.

All supplied Wireless Access Points should be of the same make and controlled centrally.

9. Centralized Control on Wireless Access points and users

Centralized control could either be fully Cloud-managed or fully On-Prem or a Combination of Cloud-managed and On-Prem systems. Accordingly, the requirements are specified in relevant areas:

Please refer to Annexure 4 B: Technical Specifications of Wireless Controller for detailed specifications

10.   Network Switches

10.1 Technical details of Network switches required

Minimum specifications for the network switches are as follows:

Number of 10/100/1000BASE-T PoE ports	24	48
Number of SFP ports	4 X 10 Gbps	4 X 10 Gbps
PoE Power Budget	740 W	740 W
PoE Compatibility for all Copper Ethernet ports	802.3at and 802.3af	802.3at and 802.3af
Managed Switch	Yes	Yes
19" Rack Mountable	Yes	Yes

Quantity of switches required may change due to possible changes to the requirement at time of finalization.

10.2 Rack wise Switches required

No	Rack Location	24 Port 740W	48 Port 740 W	24 port fiber switch	Total
	Hostel 1 FF	1			1
	Hostel 1 SF	1			1
	Hostel 2 FF	1			1
	Hostel 2 GF	1			1

N o	Rack Location	24 Port 740W	48 Port 740 W	24 port fiber switch	Total
	Hostel 2 SF	1			1
	Hostel 3 FF	1			
	Hostel 3 SF	1			
	Hostel 4 FF	1	2		3
	Lecture Hall 3		1		1
	Lecture hall 7				1
	Library				1
	Jubilee Park			1	1
	Total:	**8**	**3**	**1**	**12**

10.3 Summary of Network Switches

Following is the summary of PoE switches required. Technical specifications for these switches are detailed in **Section 11.1**

No.	Switch	Count
1.	24 Port 740W, 4 x 10 G Fiber	8
3	48 Port 740W , 4 x 10 G Fiber	3
4	24 port fiber switch with minimum 4 x 40/100 GB Fiber	1
	Total:	**12**

11. Security Considerations

11.1 Security considerations for Wired and Wireless devices

Security requirements for all the devices which include Wireless Access Points, On-Prem Wireless Controllers, Network Switches, etc. are as follows:

No.	Requirement	Rationale
1.	**Software / Firmware Updates**	Security patches, performance improvements & new features.
2.	Encrypted Administrative Access	Encrypted administrative access using encrypted protocol such as SSH / HTTPS. Clear text access should be disabled.
3.	Change of default password	Allow change of default password.
4.	Time Synchronization	Synchronization of device time with NTP server.
5.	Configuration Backup and restore	Backup and restoration of administrative configuration for use in case of emergency / after factory reset.
6.	SNMP support	SNMP to enable network monitoring, integration with network management systems and support for integration with IT monitoring tools such as SolarWinds, Nagios, Zabbix etc. Availability of SNMPv3 will be added advantage.

Specific security considerations for Centralized Control of Wireless Access Points & Users are specified in Annexure-4.

11.2 VLANs and Access Control

Network Access Control Matrix should be configured as follows:

From VLAN	admin	niauser	student	guest	server	dmz	Internet
admin	Yes	Yes	Yes	Yes	Yes	Yes	
niauser	No	Yes	No	No	Yes	No	Baseline Filtering
student	No	No	Yes	No	AD Server	No	
guest	No	No	No	Yes	No	No	
server	No	No	No	No	Yes	*	Only Security Updates
dmz	No	No	No	No	No	Yes	

* Only towards identified systems and Services
Internet: Internet Access Restrictions

12.   Network Cabling

Network cabling, Cable numbering, Termination and Rack dressing should adhere to following requirements:

No.	Requirement	Rationale
1.	Structured Network Cabling: • Patch Panels mounted in Network Rack. • Cat-06a 23 Gauge Plenum Ethernet Cable to be laid from Patch Panel to device end. • Single Information Outlet(s) (I/O) at device end as per the requirement and Factory crimped molded patch cables to connect Patch Panel ports with Ethernet Switch port and Information Outlet to Devices. • Wireless Access Points to be connected to the patch panel by hand crimped cable. • Copper Cables should be numbered at both the ends by using ferules. The numbering should adhere to 4 digit number corresponding to Hostel Room Number / Network point number at various locations. • Wherever required, replacement of existing faulty copper cables with new cables along with necessary crimping and testing. • All existing unused / damaged cables to be removed. • Sufficient slack cable should be kept at Patch Panels / LIUs / Network racks / Device ends. • Network cables should be laid in adherence with recommendations from manufacturer about bend radius, cable tension, etc. • Crimping of network cables should ensure that the sleeve is inserted inside the RJ-45 connector. • All existing unterminated fiber cables are to be terminated on LIUs. • Fiber cables to be terminated on LIU in the network rack. All 12 core of fiber cables to be terminated to LIU. • Components required for fiber termination such as adapter, fiber pigtail, etc. to be included in scope of the work. • Fiber cables should be numbered as per the existing numbering convention.	Ease in maintenance and troubleshooting.

No.	Requirement	Rationale

2.	Copper Network Cables
	  a. Cat-06a 23 Gauge Plenum cables in PVC conduit pipes / Casing capping of necessary diameter for indoor cabling.
	  b. Armored Cat-06a 23 Gauge cables in HDPE pipe with 32 mm Internal Diameter for outdoor cabling.
	  c. Network cables should not crossover electrical cables. If crossover is unavoidable, there should be a gap of 6 inch.
	  d. If electrical and Copper Network cables are running parallel to each other, minimum distance of 1 feet should be observed.
	  e. All network cables should be Color coded by using different colored cables for connecting various devices:
	    o Wireless Access Points
	    o Cross over cable from switch to switch
	    o Computer systems, IP Telephones, Devices, etc.
		Minimizing effect of electrical interference.
		
		Protection of cables from physical damage and environmental factors.

3.	Fiber network cables: • 12 Core Single Mode Armored Fiber cable in PVC conduit pipes of necessary diameter for Indoor cabling. • 12 Core Single Mode Armored Fiber cable in HDPE pipe with 32 mm Internal Diameter for outdoor cabling.	Protection of cables from physical damage and environmental factors.
4.	Testing: • Copper Cabling: Testing by using attenuation tester such as Fluke Meter for new network points. Further, discovered faulty network points should be rectified and retested. • Fiber Cabling: Verification of desired network speed.	Validation of copper cabling.
5.	Network / Rack diagram: • On completion of new cabling and rack dressing, network layout diagram including port wise connections, cable numbering and network devices should be prepared and submitted for easy identification of network points. • Rack diagram should be prepared using the existing conventions and pasted on the network rack for easy identification of network points. • For existing network racks, the existing diagrams should be updated and pasted on the rack. • Complete Network diagram for NIA Wireless and Wired network should be prepared and submitted.	Ease of identification and troubleshooting.
6.	Sufficient ventilation to all network racks.	Mitigation of fire hazard and overheating of network devices due to overheating of network racks.
7.	Preventive maintenance and re-dressing of existing network racks should be carried out.	Ease in maintenance and troubleshooting.

13.   Uninterrupted Power Supply

Location wise UPS requirement is provided in the following chart.

Admin Block FF	0	Supported by existing UPS
Admin Block GF	0	Supported by existing UPS
Conference Hall	0	Supported by existing UPS
Cottage	0	
Director Residence	1	
Drucker	0	Additional support for 10 PCs @250W each, and One Core Switch - already there
Faculty Block	0	Not Required
Hostel 1 FF	1	To support Hostel 1 SF Rack
Hostel 1 SF	1	Supported by Hostel1 FF UPS
Hostel 2 FF	1	To support Hostel 2 Racks on All Floors
Hostel 2 GF	1	
Hostel 2 SF	1	
Hostel 4 FF	2	To support Hostel 4 Racks on All Floors
Jubilee Park	0	Supported by existing UPS
Lecture hall 3	0	Supported by existing UPS
Lecture hall 7	0	Supported by existing UPS
Library	0	Supported by existing UPS
Server Room	0	Supported by existing UPS

Summary of UPS required:

UPS Rating (KVA)	Quantity Required
1	6
2	1

14.   Project Management

Vendor should provide PMS support by a project manager (PM). PM will act as Single Point Of Contact (SPOC) during the implementation phase to ensure timely completion of the project and coordinate with vendor's internal teams, NIA teams, consultants, etc.

14.1 Implementation

Vendor should understand the existing NIA network setup from perspective of the implementing the proposed solution and provide optimization if-any and get the detailed implementation plan approved prior to beginning on-site actual work.

- **Understand the requirements in details:** Visit NIA to review the existing setup, Understand detailed requirements from Wi-Fi, Review proposed locations of Wireless Access Points, Review areas to be covered by Wi-Fi by site walk through, Review existing network cabling and new cabling requirements.
- **Review existing Wired Network:** Review existing wired network, cabling, Network racks and NIA Campus area to identify actual paths to lay new cables.
- **Network Device Configuration Review:** Configuration review of existing network devices such as network switches, firewall, etc. to identify configuration changes to be implemented.
- **Optimize the proposed solution:** Based on the review and parameters of the proposed solution, arrive at optimization wherever technically feasible. This may include redesign of the network, reduction in number of switches / Wireless Access Points, etc. *For example, Higher PoE budget available with the proposed switches may lead to less number of switches required / Higher area covered by the proposed Wireless Access Points may require less number of access points*.
- **Provide and validate the implementation plan:** Provide time bound implementation plan for approval by NIA.
- **Complete the implementation:** Complete the implementation to satisfy tender requirements according to the approved implementation plan.
- **Location wise Rack Numbering**

Following points are required to be mentioned in Implementation Plan.

- **Network Design & Architecture :** Provide Methodology for AP placement, RF planning, capacity planning in Implementation plan.
- **Installation Plan :** Approach to physical installation of APs, network switches, cabling, including PoE requirements.
- **Network Configuration Approach** : Methodology for configuring APs, switches, VLANs, Integration with existing network and routing.
- **Testing and Validation :** Post-implementation expected Wireless Network Throughput, Latency, and Coverage.
- **Testing and Validation :** Detailed testing procedures for wireless network performance validation.

If required, Any additional activities may be carried out for optimization and prepare comprehensive implementation plan.

14.2   Documentation and Backup

Following documentation should be provided:

- Detailed user manuals, setup guides, and best practice documentation for the supplied networking equipment.
- Schematic Diagram of network
- Network architectural layout.
- Network layout with details of all network racks, devices.
- Rack diagrams and its pasting on corresponding racks.
- Implemented Access Control Matrix.
- Backup : Configuration backups of all implemented devices and systems.

14.3   Training

Provide technical training to NIA IT team:

Successful Bidder has to provide Outline of training provided for IT and engineering team: Areas covered, Number of Hours, Training Material / Troubleshooting documentation. Training for managing wireless network.

No.	Details of Training
1.	Administration of all IT equipment supplied such as Network Switches, Wireless Access Points, Centralized Controller(s) for Wireless Access Point management and User Management, etc.
2.	Troubleshooting of Wired and Wireless Network and all IT equipment supplied such as Network Switches, Wireless Access Points, Centralized Controller(s) for Wireless Access Point management and User Management, etc.

15.   Annexure 1 : PRE-QUALIFICATION BID FORMAT

The below format for Pre-Qualification bid is for bidder's information & reference purpose only. The fillable Excel sheet is available on NIA e-Procurement Website. Bidders need to download the same from respective bidder's user id and then further complete the e-tender process online.

NATIONAL INSURANCE ACADEMY,PUNE			
Tender No.: NIA/CC/Enq/25-26/004 Date: 23/01/2026			
Name of The Work : E-tender for SUPPLY AND INSTALLATION OF WI-FI at NATIONAL INSURANCE ACADEMY, PUNE			
Annexure 1 : PRE-QUALIFICATION BID FORMAT			
Name of the Bidder (Compulsory)			
Sr.no	Description	Details	File Name of uploaded document
1	Name of the firm/company		
2	No. of years' experience in related industry (Copy of Incorporation Certificate to be submitted or Copy of Registration by Local or State or Central Authority :Upload soft copy) *		
3	Address of registered office		
4	Address of Service Centre at Pune (Upload Address Proof) *		
5	Name , Telephone No and e-mail ID of contact person		
6	Specify whether your company is Systems Integrator or Authorised Supplier for OEM or Authorised Distributor for OEM **Upload Soft copy of** Authorisation letter from OEM *		
7	Banker of Company/ Firm with full address		
8	PAN number (upload softcopy)*		
9	GST No (upload softcopy)*		
10	Annual Turnover of last three financial years (Proof of financial status in form of CA Certificate OR audited Balance Sheet and Pprofit and loss ststement for the last three financial years : upload softcopy for three years)*		
	Annual Turnover		
	2022-2023		
	2023-2024		
	2024-2025		
11	Net Profit of last three financial years (Audited Profit and Loss statements for the last three financial years : (upload softcopy for three years)*		
	Net Profit		
	2022-2023		
	2023-2024		
	2024-2025		
12	Copy of Income Tax Return Filed Acknowledgements for last Three years. **(upload softcopy for three years)**		
13	Please furnish details of similar projects undertaken in the past four years in the **Annexure 2** **(Upload soft copy of work orders and completion certificate.) ***		
14	Enclose an affidavit duly certified by the notary that The firm has never been black listed **(upload softcopy of affidavit as per Annexure 6)***		
15	List of experienced engineers with course certification details and total number of years experience **(upload list of Engineers and qualification in softcopy minimum 5 engineers on company letter head)***		
16	Non Disclosure Agreement **(Upload soft copy as per format given in Annexure -7) ***		
17	EMD (Earnest Money Deposit) a) Bidders are required to submit Rs.3,00,000/- (Rupees Three Lacs only) as EMD for the bids.		
	* : Compulsory Document		

16. Annexure 2 : Format of Experience certificate

The below format is for bidder's information & reference purpose only. The fillable Excel sheet is available on NIA e-Procurement Website. Bidders need to download the same from respective bidder's user id and then further complete the e-tender process online.

NATIONAL INSURANCE ACADEMY,PUNE
Tender No.: NIA/CC/Enq/25-26/004   Date: 23/01/2026
Name of The Work : E-tender for SUPPLY AND INSTALLATION OF WI-FI at NATIONAL INSURANCE ACADEMY, PUNE

Annexure 2 :Format of Experience Certificate

Sr. No.	Work Order Number	Name of the Customer	Description of work	Value of Contract (Rs. In Lakhs)	No. of Acces Points	Date of issue of work order	Date of completion	Contact Person Name	Phone Number
	Name of the Bidder (Compulsory)								
Completed Work Orders in last three financial years : (having 75+ access points with centralised controller)									
1									
2									
Other Work Orders									
3									
4									
5									
6									

17. Annexure -3 Price Bid Form and Buyback price form

18.1 Annexure 3: PRICE BID FORM

The below format is for bidder's information & reference purpose only. The fillable Excel sheet is available on NIA e-Procurement Website. Bidders need to download the same from respective bidder's user id and then further complete the e-tender process online.

NATIONAL INSURANCE ACADEMY
25, BALEWADI, BANER ROAD,
NIA P.O., PUNE 411 045

Name of Work : E-tender for SUPPLY AND INSTALLATION OF WI-FI AT NATIONAL INSURANCE ACADEMY, PUNE

Tender No :- NIA/CC/Enq/25-26/004   Date : 23/01/2025

BILL OF QUANTITIES / E-QUOTATIONS (Computer Center)

Name of the Bidder (Compulsory)

No.	Item / Services	Quantity	UOM	Unit Price	Price	Tax Amount	Total Amount including tax
1	Indoor Access Points 2X2	345	No.s		0	0	0
2	Indoor Access Points 4X4	11	No.s		0	0	0
3	Outdoor Access Points 2X2	23	No.s		0	0	0
4	Wireless Controller	1	No.s		0	0	0
5	24 Port 740W PoE Managed Rack Mount Switch with 4 X 10G Fiber Backbone	8	No.s		0	0	0
6	48 Port 740W PoE Managed Rack Mount Switch with 4 X 10G Fiber Backbone	3	No.s		0	0	
7	Fiber Switch 24 Port	1	No.s		0	0	
8	10 GBPS Fiber modules for switch	30	No.s		0	0	0
9	40 GBPS Fibre Modules	6	No.s		0		
10	0.5 Meter Patch Cables Grey	20	No.s		0	0	0
11	Indoor CAT6 A UTP Cable	655	Meter		0	0	0
12	Outdoor SM Fibre Cable 12 Core Armoured	700	Meter		0	0	0
13	Patch Panels 24 Port Loaded	8	No.s		0	0	0
14	Patch Panels 48 Port Loaded	3	No.s		0	0	0
15	LIU 12U Loaded	3	No.s		0	0	0
16	RJ45 Connector	100	No.s		0	0	0
17	UPS Off Line 1 KVA, 20 Min Backup	6	No.s		0	0	0
18	UPS Off Line 2 KVA, 20 Min Backup	1	No.s		0	0	0
19	Network Rack 24U Rectanglular 600x600x1250mm (W x D xH) Floor Standing with PDU, Castor Wheels, Cable Manager	1	No.s		0		
20	Fiber Splicing Job basis				0	0	0
21	HDPE Pipe	800	Meter		0	0	0
22	Server for Software Controller (if requierd)	1	No.s		0	0	0
23	Network Monitoring Software (optional)	1	No.s		0	0	0
24	Onsite and Remote support as per the need, during warranty period. Onsite engineer support for 3 months after implementation	1			0	0	0
	Additional items if any						
1					0	0	0
2					0	0	0
3					0	0	0
4					0	0	0
5					0	0	0
6					0	0	0
7					0	0	0
8					0	0	0
9					0	0	0
10					0	0	0
11					0	0	0
12					0	0	0
13					0	0	0
14					0	0	0
15					0	0	0
	TOTAL PRICE :				0	0	0

Note : Vendors Should have to quote the prices in above blue cells only except sheet are protected.
"This is Electronic Spread Sheet Signature Is Not Required"

The quantity mentioned is an estimated quantity. However, it should not be altered, as that quantity will be the basis for bid evaluation.
The actual quantity to be ordered may vary by +/- 10%.

Note :

- **Quantity specified is estimated quantity and will be used for bid evaluation. The actual quantity to be ordered may vary by +/- 10% , depending on the results of the survey to be carried out by the selected bidder.**
- **Additional Items required may be added to this list in the fillable excel sheet provided.**

All Fiber and Copper cabling including passive components preferred brand: D-Link.

18.2 Annexure 3-A: Format of Buyback of equipment

Tender No.:NIA/CC/Enq/25-26/004					
Format of Buyback of eqipment to be filled up by Bidder					
Name of the Bidder (Compulsory)					
Sr. No.	**Item Description**	**Make and Model**	**Qty**	**Rate**	**Price**
1	Hardware Controller	UniBox U-500 V3.1	1		0
2	Indoor Wireless Access point 4x4 MIMO	Netgear WAC 540	6		0
3	Indoor Wireless Access point 2x2 MIMO	UniMax UM310AC	70		0
4	Outdoor Wireless Access point 2x2 MIMO	UniMax UM510AC	26		0
	Total				**0.00**
	GST 18%				0.00
	Total charges including GST				**0.00**
Note : Vendors Should have to quote the prices in above blue cells only except sheet are protected. **Bidders must accept the buy-back devices in their existing 'As-Is' condition.**					
"This is Electronic Spread Sheet Signature Is Not Required"					

18. Annexure 4: TECHNICAL SPECIFICATIONS

Details given below are for bidder's information & reference purpose only. The fillable Excel sheet is available on NIA e-Procurement Website. Bidders need to download the same from respective bidder's user id and then further complete the e-tender process online.

Wireless controller should support current user base and should be scalable to 2000 total wireless users with 1000 concurrent users without need to change the wireless controller

Wireless access points, controller and network switches should support following specifications at a minimum –

18.1 Annexure -4A :Technical specifications of Wireless Access Points

Specification	Indoor 2x2 Wi-Fi 6
Wi-Fi Standard	Wi-Fi 6 (802.11ax)
Radio Configuration	2x2 MU-MIMO
Frequency Bands	Dual-band (2.4 GHz and 5 GHz)
Min Data Rate	300 MBPS on 2.4 GHz 1.2 Gbps on 5 GHz
Wi-Fi Security	WPA2/WPA3
PoE Support	Yes (Power over Ethernet)
Ethernet Port Speed	1 Gigabit Ethernet
Advanced Features	MU-MIMO; Beamforming; OFDMA; QoS
Management	Cloud or on-premises management (depending on model)
Weatherproof (Outdoor Models)	N/A
Min User Capacity	10 Users
Compliant with MTCTE	Listed on website https://www.tec.gov.in/Equipment-certified-under-MTCTE

Specification	Indoor 4x4 Wi-Fi 6
Wi-Fi Standard	Wi-Fi 6 (802.11ax)
Radio Configuration	4x4 MU-MIMO
Frequency Bands	Dual-band (2.4 GHz and 5 GHz)
Min Data Rate	300 MBPS on 2.4 GHz 4.8 Gbps on 5 GHz 160 MHz
Wi-Fi Security	WPA2/WPA3
PoE Support	Yes (Power over Ethernet)
Ethernet Port Speed	1 Gigabit or 2.5 Gigabit Ethernet
Advanced Features	MU-MIMO; Beamforming; OFDMA; QoS
Management	Cloud or on-premises management (depending on model)

Weatherproof (Outdoor Models)	N/A
Min User Capacity	75 User
Compliant with MTCTE	**Listed on website https://www.tec.gov.in/Equipment-certified-under-MTCTE**
Specification	**Outdoor 2x2 Wi-Fi 6**
Wi-Fi Standard	Wi-Fi 6 (802.11ax)
Radio Configuration	2x2 MU-MIMO
Frequency Bands	Dual-band (2.4 GHz and 5 GHz)
Min Data Rate	300 MBPS on 2.4 GHz 1.2 Gbps on 5 GHz
Wi-Fi Security	WPA2/WPA3
PoE Support	Yes (Power over Ethernet)
Ethernet Port Speed	1 Gigabit Ethernet
Advanced Features	MU-MIMO; Beamforming; OFDMA; QoS
Management	Cloud or on-premises management (depending on model)
Weatherproof (Outdoor Models)	IP65-rated (weatherproof) or better
Min User Capacity	50 User
Compliant with MTCTE	**Listed on website https://www.tec.gov.in/Equipment-certified-under-MTCTE**
Manageability	**Common Features for all WIFI Access Points** **Encrypted access to administration using SSH and HTTPS**
Security and Roaming	**Support for disabling Telnet and HTTP access** **Encrypted user data and management traffic between controller and Access point : IETF/DTLS or any similar encryption protocol**
Installation	**All wireless access points should be supplied with necessary mounting kit and other relevant hardware for secure mounting so that they are inaccessible to unauthorized personnel.**
Number of SFP ports	**Network Switches** 4 X 10 Gbps
PoE Power Budget	740 W
PoE Compatibility for all Copper Ethernet ports	802.3at and 802.3af
Managed Switch	Yes
19" Rack Mountable	Yes

All the devices are required to be compliant with MTCTE, https://www.tec.gov.in/Equipment-certified-under-MTCTE

18.2 Annexure-4B : Technical Specifications of Wireless Controller

a. Centralized Control of Wireless Access Points

No.	Parameter	Rationale
1.	**No. of Access Points**	Centralized control for minimum 400 access points, upgradable to 750
2.	**SSIDs Configuration**	Ability to configure 6 SSIDs at a minimum for different network segments such as admin, staff, student, guest, etc.
3.	**VLAN Configuration**	Support for configuring multiple VLANs corresponding to each configured SSIDs, for network segregation.
4.	**Wireless Authentication**	Secure configuration of wireless passwords and encryption protocols such as WPA2 / WPA3 for wireless security.
5.	**Device Remote Reboot**	Remote control to reboot access points for maintenance and troubleshooting.
6.	**Diagnostic Tools**	Tools to help identify and troubleshoot common network issues like interference, poor coverage, and connectivity.
7.	**Mobile Application for centralized control**	Android and Apple iOS based mobile application to allow administrators to manage access points remotely.
8.	**Centralized Network Performance Monitoring**	Real-time monitoring of wireless network performance, signal strength, traffic patterns, client behavior, bandwidth usage, and overall health.
9.	**Configuration backup and restore**	Restoration of backup in case of an emergency / rollback during maintenance.

b. Centralized **User Management**

No.	Parameter	Rationale
1.	**Centralized Management of Wired and Wireless Users:** • **NIA users configured on Active Directory:** The platform should support centralized user management for all NIA internal wired and wireless users configured on NIA Active Directory (AD) in three AD Groups: admins, staff and students. • **Support for Cloud based and In-House AD:** The system should support integration with On-Prem AD and Cloud based Entra ID (Earlier Azure AD). • **Guest Users**: Guest user management should provide features such as customizable captive portal for user authentication, Voucher Creation, time-restricted temporary access credentials, logs of user access and activities. • **SMS Gateway Integration feature should be available for wi-fi access to guest users using OTP on mobile.** • **User** logs for 180 days : Logs of internet access of users for 180 days	Centralized Internet Access control for Wired and Wireless Users.

c. Specific **Security Considerations for Wireless Controller**

No.	Parameter	Rationale
1.	**End-to-End Encryption**	Ensures secure communication between access points and management platform.
2.	**Automated Channel, Power, and Load Balancing**	Automatic optimization of channel selection, transmission power, and load balancing for optimal wireless performance.
3.	**Traffic Shaping/QoS**	Prioritizing identified network traffic, such as voice and video, to minimize delays. Allocating predefined bandwidth for traffic originating from identified VLANs.
4.	**Logs of Configuration Changes**	Availability of logs of changes made to Wireless, Network and Users, including administrative access, for accountability and auditing.
5.	Rogue AP Detection	Ability to detect unauthorized or rogue access points trying to connect to the network, to mitigate security breaches.
6.	**Client Isolation**	Isolation of clients within the same network or SSID to prevent unauthorized communication between connected devices.
7.	**Load Balancing Across APs**	**Dynamically distribution of network traffic across multiple access points to mitigate congestion and optimize performance.**
8.	Role Based Access Control	Role-based access control (RBAC) to define different levels of administrative access to configure and manage groups of access points and users.

d. Specific considerations for On-Prem User Management System

On-Prem Guest User management system should support following features at a minimum. The system may be an independent hardware controller or and other software alternatives such as integration of RADIUS server with existing firewall, etc.

No.	Parameter	Rationale
1.	**High Availability (HA)**	Provisioning for HA by installation of two controllers.
2.	Connectivity with Internal Network and Internet	10 Gbps Fiber or Copper.
3.	Storage	1 TB Controller Storage at a minimum.
4.	User Management	Centralized management of wired and wireless users for Internet access

e. Specific considerations for Cloud based Platform

No.	Parameter	Rationale
1.	Multi-Site Access Point Management to manage access points across multiple locations via a cloud controller.	Future expansion of NIA campus to other locations / cities
2.	Role based access control	Administrative access to Wireless Access Points Site-wise for corresponding administrators.

19 Annexure 5: Implementation Plan

The below format is for bidder's information & reference purpose only. The fillable Excel sheet (Annexure 5) is available on NIA e-Procurement Website. Bidders need to download the same from respective bidder's user id and then further complete the e-tender process online.

Sr. No.	Description	Documents formats	Sheets to be filled in / PDF File name
	Annexure 5 : Implementation Plan		
1	**Visit NIA to review the existing setup and understand wireless requirements - Provide Date and time of visit and name of the people visited**	Give Visit Details	**Visit**
2	Provide implementation plan for installation of wireless network with proposed timeline. provide a detailed project timeline with milestones and resource allocation	Provide in following format e.g Activities in sequence of completion Activity No. of Days	**Implementation Plan**
3	Provide details of technical manpower strength and corresponding certifications related to wired and wireless networking	Details of Two team members proposed to work on NIA site. Upload PDF file	**PDF File**
4	Provide detailed testing methodology for validation of wired and wireless network implementation with respect to tender requirements	Upload PDF file	**PDF File**
5	Provide training plan as per the requirements	Provide in following fromat Topic No. of Hours Training Material to be provided	**Training**

20 Annexure 6 : Affidavit of not blacklisted firm

D E C L A R A T I O N / A F F I D A V I T

(On Non Judicial Stamp paper of Rs 500)

From
M/s...
....
....

To
Director,
National Insurance Academy,
Balewadi, Baner Road, Pune

1. I,...S on/Daughter/Wife of Shri... Proprietor/Director Authorized Signatory of the agency/Firm, mentioned above, is competent to sign this declaration and execute this tender document;

2. I have carefully read and understood all the terms and conditions of the tender and undertake to abide by them;

3. The information / documents furnished along with the above application are true and authentic to the best of my knowledge and belief. I/we, am/are well aware of the fact that furnishing of any false information/fabricated document would lead to rejection of my tender at any stage besides liabilities towards prosecution under appropriate law.

4. I/We further undertake that the Government has not black listed our firm.

Yours faithfully,

(Signature of the Bidder)

Date: Name:

Place: Designation

                                                      Seal of the Agency Address:

21 Annexure 7 : Non-Disclosure letter to be provided on Company's Letterhead

To,

The Director ,

National Insurance Academy, Pune.

Sub : Non-Disclosure of the information provided by NIA

Dear Sir,

This is to confirm that, our company will not share any information provided by NIA for submitting bid for **SUPPLY AND INSTALLATION OF WI-FI AT NATIONAL INSURANCE ACADEMY, PUNE.**

The confidential and proprietary information (hereinafter "information") that is the subject of this tender shall include, but not be limited to any and all technical and non-technical information that NIA provides to bidder whether in graphic, electronic , written and oral form as well as any information developed or derived therefrom.

This is to confirm that, our company will not share any information provided by NIA for submitting bid for **SUPPLY AND INSTALLATION OF WI-FI AT NATIONAL INSURANCE ACADEMY, PUNE.**

Our Company agrees to: (i) maintain all Information in confidence and take all necessary precautions to protect said information, including, without limitation, all precautions the Bidder normally employs with respect to its own confidential or proprietary information; (ii) not disclose Information to any third party except to those employees, board members, scientific, technical or other advisors, affiliates, consultants or subcontractors who have a need to know such Information for the Purpose set forth above and who are bound by restrictions on disclosure and use of such information at least as restrictive as those set forth herein; and (iii) not to utilize information for any purpose other than the Purpose of this tender.

Our Company agrees not to make any copies or duplicates of the Information except as otherwise expressly authorized by NIA in writing or as necessary for the Purpose.

NIA does not warrant the accuracy or completeness of any Information and all implied warranties or representations to that effect are hereby expressly disclaimed.

Our Company accept the above mentioned non-disclosure information rules and assure that we will abide these rules

 With Regards,

 (Name and Signature)

22 Annexure 8: Tender Evaluation Criteria

1. All complete Technical Bids will be submitted to a Technical Evaluation committee. The bid should cover all the requirements stated in this Tender and any bid which provides partial solutions will not be accepted.
2. Please note that Technical Bids fulfilling the TECHNICAL SPECIFICATIONS mentioned in Annexure 4 will only be considered for Technical Evaluation.

The Technical Evaluation Committee will consider and rank Technical Bids and evaluate them on the following criteria:

SR. NO.	PARAMETERS	MAXIMUM MARKS
1	Experience of the Firm/Company and Technical Capability	30
2	Technical evaluation of solution proposed by wireless vendor (Detailed in Annexure 9)	40
3	Presentation and explanation of proposed solution and Implementation Plan	15
4	Additional important features provided by vendor in Annexure 4	15
	Total	**100**

Evaluation of document:

A detailed evaluation of the bids shall be carried out in order to determine whether the bidders are competent enough and whether the technical aspects are substantially responsive to the requirements set forth in the RFP. Bids received would be assigned scores based on the parameters defined in table below.

Evaluation Criteria	Max. Marks	Marks Ranges	Total Points
1. **Experience and Technical Capability:** Experience of the company and Technical Capability in executing & managing large campus Wi-Fi projects, integrating various			**30**

technologies. (Total number of APs commissioned and maintained by the bidder in a single campus would be taken into account)			
a. No. of years' experience in related industry (Copy of Incorporation Certificate to be submitted)	8	< 5 years : 2 6 to 10 years : 4 > 10 years : 8	
b. Highest single Work order in terms of order value in last 3 financial years (Work order copy to be submitted) for wireless network implementation.	7	< 50 lacs : 4 > 50 lacs : 7	
c. Total number of wireless Access Points i.e. No. of APs implemented in a single work order (Work order copy to be submitted)	10	< 100 : 2 101 to 150 : 4 151 to 200 : 6 200 to 300 : 8 > 300: 10	
d. Suitability of the key personnel for the assignment (Will be evaluated based on details of engineers provided by the bidder on Company's Letterhead mentioning list of certifications such as CCNA, CWNA etc. and their experience)	5		
2. Technical evaluation by the purchaser based on the solution proposed by wireless vendor (Detailed in Annexure 9)			**40**
3. Presentation and explanation of proposed solution and Implementation plan			**15**
4. Additional important features provided by vendor			**15**
a. Product Warranty more than 3 years	3		
b. Controller for managing users as well as Access Points	3		
c. Perpetual license for AP and controller	3		
d. Availability of Outdoor 4X4 APs	3		

e. Any other additional feature	3		
TOTAL TECHNICAL SCORE			**100**

The technical scores of the bidder against each criteria would be totaled, and thereafter the technical scores of all the bidders would be listed in decreasing order.

Any proposal achieving a Total Technical Score (T) less than 60 will be treated as Not Substantially Responsive and will not be considered further. **Price Bid of only** *technically qualified bidders will be opened.*

23 Annexure 9: Technical Evaluation of Solution proposed by Wireless Vendor

Information on following 5 areas should be obtained from ***bidder and validated by OEM*** for evaluation.

Scalability & Future-Proofing (20%)

- **How easily can the solution scale?**
    - Can additional access points be added without complex reconfiguration or additional hardware?
    - Is there a limit to the number of access points supported in a single deployment?
- **Does the solution support future Wi-Fi standards (Such as Wi-Fi 6E or beyond)?**
    - Are software or hardware upgrades required to support future standards, and what is the upgrade path?
    - Does the solution support 6GHz bands, for utilizing if available for general use in India at a later date?
- **Support for Wireless Encryption**
    - Whether the APs support WPA3 encryption?
- **How does the system perform in high-density environments with future growth (Such as handling 2000+ concurrent users)?**
    - Can the system automatically optimize for high device density?

Performance in Real-World Use (25%)

- **How does the solution perform in high-density environments (Such as large classrooms, auditoriums)?**
    - Can you provide examples of similar environments and how the solution handled them?
    - How does the system prevent performance degradation under high user load?
- **What is the expected throughput in both indoor and outdoor environments?**
    - Can you provide throughput numbers for both 2.4 GHz and 5 GHz bands, especially in dense environments?
- **How well does the system handle roaming between access points?**
    - Does your solution support fast roaming for seamless user experiences when moving between access points?
- **How does the system handle thick concrete / marble walls or other physical barriers?**
    - Can you provide any performance benchmarks or results showing how well the system performs in environments with significant physical barriers (Such as thick concrete / marble walls)?
- **How does the system ensure optimal coverage and minimize dead zones?**
    - Does your solution support mesh networking or any other feature to ensure full coverage in both indoor and outdoor areas?

Vendor Reputation & Support (20%)

- **What support Services are available?**

- o Can you provide Service Level Agreements (SLAs) for response times and issue resolution for both hardware and software-related issues?
- **What post-installation support and monitoring services are offered?**
  - o Does the solution provide proactive monitoring to track system health and performance?
  - o What tools are available for troubleshooting and network management?
- **Customer references or case studies of a similar deployment**
  - o Please provide case studies or references from educational institutions or campuses similar to NIA?
  - o If available, may we contact them for feedback?
- **What are the terms of your warranty and cloud support?**
  - o How long is the warranty for hardware?
  - o What is the default cloud support you provide and what does it include?
  - o Are there any additional costs after the support period expiry?
  - o Where is the nearest service center?
  - o Will the faulty device be repaired or replaced during the warranty period?

Product Security (20%)

- **How frequently software/firmware updates are released?**
  - o Are updates provided as part of the service agreement, or are they charged separately?
  - o How often are updates released?
- **Unaddressed security advisories / CVEs (Common Vulnerabilities and Exposures) for your products?**
  - o Are there any unmitigated CVEs for products offered to us?
  - o When will open CVEs be resolved (if any)?
- **Location of Cloud based servers used for centralized control?**
  - o In which country the cloud based servers used for centralized control are installed?
- **Telemetry and Information Collection?**
  - o Whether Telemetry / information collection is implemented on your devices?
  - o Provide list of which information is collected and shared? (if any)
  - o Provide list of which information is shared with external parties? (if any)
  - o Provide locations of remote telemetry servers deployed (if any)

Specific Features & Flexibility (15%)

- **Does the solution support guest Wi-Fi with a customizable captive portal?**
  - o Can we brand and configure the captive portal?
  - o Does the guest management system provide creation of users with access for a predefined time period? -
- **Can your solution support VLAN segmentation for different user groups (Such as staff, students, guests)?**
  - o How does your solution handle VLANs and policy-based access for different user groups? Can VLANs be easily configured?
- **How customizable is your management interface?**
  - o Can the cloud management interface be tailored to suit the needs of the campus network?

- o Does centralized management allow various features such as Centralized reporting, Alerts and Role Based Access Control for Multiple campuses, Remote soft reset of Wireless APs, Remote factory reset of Wireless APs, etc.? Please provide list of such features.
- **How does the solution handle band steering and load balancing?**
  - o Does your solution automatically manage band steering to distribute users between the 2.4 GHz and 5 GHz bands? How does it optimize load balancing across access points?
- **Can your outdoor access points handle environmental conditions?**
  - o What is the IP-rating for the outdoor Access Points?

Calculating the Ratings

For evaluation, each bullet point from each evaluation section will be marked on the scale of 0 to 5. Total of this score will be considered for calculating % score of the corresponding section. Section wise weightage will be applied and totalled to arrive at final score.

Sample Score based on this criteria:

Sample Score:

No.	Criteria	Max. Section Score	Section Score	Weightage	Weighted Score
1.	Scalability & Future-Proofing	20	15	20%	15
2.	Performance in Real-World Use	25	18	25%	18
3.	Vendor Reputation & Support	20	15	20%	15
4.	Product Security	20	19	20%	19
5.	Specific Features & Flexibility	25	10	15%	6
				Total Score:	**73**

4. Annexure 10: Service Level Agreement

No.	Area of work	Description	Details	Target/Metric
1	Performance Metrics	Uptime	Wired network and wireless network	99.9% uptime for network components 99.9% uptime for Network Monitoring software along with its hardware Server
		Bandwidth	Minimum bandwidth required for network operation	10 GBPS for wired network backbone: Jubilee, IT and Drucker 10 GBPS for all switch to switch uplinks Sufficient bandwidth for wireless users for 720p or 1080p Video calls
		Wireless Network Coverage	Coverage across specified area	100% coverage with no dead zones on the specified area
		Wireless Network Coverage	Signal strength	Minimum acceptable signal strength of -65 dB throughout the area to be covered
		Latency	Maximum latency for network connections	<50 ms for wired, <100 ms for wireless
2	Response and Resolution	Incident Response Time	Acknowledgement of the incident critical/non-critical issues	What are critical issues? Critical: 1 hour, Non-Critical: 4 hours
		Resolution Time	Resolve the issues after acknowledgment	Critical: 4 hours, Non-Critical: 24 hours
3	Network	Alerts and Notifications	Notification procedure for network performance issues or failures	Backbone link down Internet link down Internet link utilization >90%
4	Support and Maintenance	Support Hours	Availability of support personnel: Onsite and Remote support as per the need, during warranty period. Onsite engineer support for 3 months after implementation.	24/7 for critical issues Business hours for non-critical issues
		Scheduled Maintenance	Maintenance windows for preventive maintenance, updates, patches, and upgrades.	Minimum 48 hours notice for planned downtime
		Onsite Support	Post implementation onsite engineer support.	Support engineer to be stationed onsite for 3 months post verification of implementation.

		Replacement Warranty	Replacement of defective Access Points and switches during warranty period On-prem controller	Defective Access Points and network switches should be replaced within 24 hours during warranty period. Vendor should keep minimum 3 devices in stock. Replacement within 24 hours
		Post-Installation Support	Response and Resoultion Time	Response and resolution times for Emergency calls and Standard calls. Number of days per week for presence of Onsite support engineer. Resolution of calls on days when the onsite support engineer is not scheduled.
		Preventive Maintenance	All Network Racks, Access Points	
5	Security and Data Privacy	Firewall Management	Setup, configuration, and monitoring of firewalls	Regular updates and monitoring every 3 months
		Network Security	Security protocols, encryption standards, intrusion detection systems	Encryption standards defined, secure VPN, intrusion prevention systems
6	Equipment and Hardware	Switches, Cables, and Wireless Network Devices	Specifications for switches, cables, and access points	Cat 6 cables, PoE switches, Wi-Fi 802.11ax access points 4 X 4 and 2 X 2 MIMO at identified locations
7	Service Credits & Penalties	Service Failure Penalties	Penalties for failure to meet agreed-upon SLAs for uptime, response times, or resolution times	Service credits for downtime exceeding defined SLA thresholds (e.g., 5% for each hour of downtime)
8	Escalation and Dispute Resolution	Escalation Process	Process for escalating unresolved issues	Senior technical support within 2 hours for critical issues
		Dispute Resolution	Process for resolving disputes	Mediation or arbitration if issues are unresolved after escalation
9	Review and Updates	SLA Review and Update Schedule	Frequency of SLA reviews and updates	Annual review
10	Force Majeure	Uncontrollable Events	Force majeure conditions (e.g., natural disasters, power outages)	Network downtime due to uncontrollable events is excused
11	Liquidity Damage		0.5%	
12	Termination	Contract Termination	Terms for SLA termination	Immediate termination if major breach occurs by giving 60 days notice.

The Provider may modify the SLA with **[60 days]** prior notice.

Governing Law : This agreement is governed by the laws of **[Pune Jurisdiction]**.