A Century of Service to the Nation

NOTICE INVITING TENDER

No. T-1859   Dated: 09.02.2026

Supply and commissioning of Authentication/Access Control (Centralized Wi-Fi Management System) with Access Point at IEI-HQ

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The Institution of Engineers (India) [IEI] invites Sealed Tenders in Single Stage two Envelope bid system for engagement of an organization for **"Supply and commissioning of Authentication /Access Control (Centralized Wi-Fi Management System) with Access Point at IEI-HQ"**.

1. The organization who shall be engaged has to perform the above mentioned task as per the scope of work mentioned in the tender document.

2. The sealed tenders are to be submitted in prescribed format along with details/supporting documents wherever applicable, if attached with the tender should be duly authenticated by the vendor/s. No over-writings shall be accepted unless authenticated with full signature of the vendor/s.

3. The tender shall be in two parts viz. **Technical Part – (Envelope – 'A')** and **Financial bids (Envelope 'B')** (Envelope 'A' and 'B' with the content shall be clearly marked on the top of the envelopes separately). **Technical Part (Envelope – 'A')** shall comprise of compliance documents against Qualification Requirement, GST Registration certificate and any other document in support of technical capability (Refer Table-A). The Technical bid should not contain any financial indication, violation of which will invite disqualification. Financial bid shall comprise of quoted price only in the format provided with the tender document in **Envelope – 'B'**. Both Envelope – A & B shall be put in a third envelope, sealed and submitted within the prescribed date & time and with signature of the tender applicant over it.

4. The sealed tender duly superscribed with **"Supply and commissioning of Authentication /Access Control (Centralized Wi-Fi Management System) with Access Point at IEI-HQ"** with Tender No. should be addressed to Deputy Director (IT &Administration) sent at the Institution's address either by registered post/speed post/or by hand. Postal / couriered tender must reach to this office within stipulated date & time i.e., **upto16.00** hrs of **16 Feb 2026.**

5. Tenders received after the stipulated date and time shall not be entertained. The Institution shall not be liable for any postal delays what so ever and tender received after the stipulated time/date are liable to be rejected summarily without giving any reason and any correspondence.
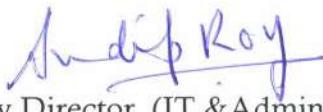
Deputy Director (IT &Administration)

A. **Objectives**

To supply an enterprise grade centralized Wi-Fi management solution to enable centralized configuration, monitoring, reporting, and troubleshooting of Wi-Fi networks to ensure secure, reliable, and scalable wireless operations.

B. Qualification of Bidder

1. The Bidder should be a registered company entity and submit the certificate of incorporation.
2. The bidder should be an authorized partner of the OEM. A copy of the agreement or authorization certificate in this regard has to be enclosed.
3. The Bidder must provide Tender Specific authorization from OEM.
1. The Bidder should have operation Office/Centre in and around Kolkata. The bidder should have an Office in Kolkata. Self-declaration with Address PAN No. & GSTIN (copy of certificates are to be attached as proof).
4. The bidder should have experiences in **Supply and commissioning of Authentication /Access Control (Centralized Wi-Fi Management System) with Access Point at IEI-HQ Solutions/Products** for at least 3 Years.
5. The Bidder should not be currently blacklisted or have been blacklisted with any Government of India Agency/ PSU, any State Government department. i.e., The bidder shall furnish a written declaration in this regards in their letterhead.
6. The Bidder has to submit the copy of at least 3 no's of Purchase / Work Orders during the last three years implementing the similar solutions.
7. Failure to provide the desired information documents by the bidder shall lead to disqualification of the Bidder.

C. Guidelines on Bid submission:

1. The language of the documentation & details in the Bids must be in English.
2. All bids to be submitted in single stage two envelope in separate covers:
   a. **Technical Bid** :- Envelope A should be superscribed with Tender No and Name of Job i.e.**"Supply and commissioning of Authentication /Access Control (Centralized Wi-Fi Management System) with Access Point at IEI-HQ"** and word "TECHNICAL BID" along with the duly signed and stamped photocopy of documents in support of their candidature for Tender and each document to be signed by authorized representative.
   b. **Financial Bid** :- Envelope should be superscribed with Tender No and Name of Job i.e.**"Supply and commissioning of Authentication /Access Control (Centralized Wi-Fi Management System) with Access Point at IEI-HQ"** and word "FINANCIAL BID" containing rate coated by the party duly signed and stamped by authorized representative.
3. These two bids to be placed in separate large envelope superscribed with Tender No and Name of Job i.e.**" Supply and commissioning of Authentication /Access Control (Centralized Wi-Fi Management System) with Access Point at IEI-HQ".**
4. **For any query please contact:**

   Sudip Roy, Deputy Director, IT & Admin
   9830744323 / sudip.roy@ieindia.org

D. General Terms and Condition

1. The contract shall be for one year and can be renewed on satisfactory performance. Rate during renewal should be mutually agreed. However, the decision of IEI should be full & final.
2. The bidder must have single fully functional contact support centre with 24 X 7 support.
3. Payment shall be made on submission of Invoice after completion of the job and Vendor has to submit Tax Invoice once the payment is made.
4. Standard LD Clause for delay in supply / service @ 2% per week or part thereof subject to maximum of 10% of the order value will be applicable.
5. IEI reserves the right to reject any or all the quotations without assigning any reason whatsoever.
6. Bidder has to provide 1 year onsite support and warranty for installed equipments.
7. Vendor shall not subcontract the maintenance jobs to any outside agency including their franchisee.
8. The bidder shall assign a dedicated Account Manager available during business hours to coordinate implementation, support and escalation management throughout the contract period.
9. **Security Deposit:** 10% of the total order value shall be retained as security deposit during performance(or Bidder has to provide bank guarantee) guarantee period which is five years. However, same shall be released after expiry of warranty period without any interest if no outstanding complain is on record on performance of the system. Penalty against non-performance shall be realized from the security deposit.
10. Vendor has to mention the Escalation procedure and matrix for customer complaints.
11. Any fault in the installed Devices will need to be resolved by the bidder within 4 hours of fault booking.
12. In case of hardware failure the bidder has to provide a standby device within 72 hours of diagnosis of problem as hardware fault.
13. If the problem not resolved within the 4 hours then penalty will be charged @ Rs 2000/- per day to the Bidder. The same penalty will be applicable if a stand by device is not provided in case of hardware failure.
14. **Jurisdiction:** This Agreement will be governed by and construed in accordance with the laws of India and any dispute arising out of this agreement will be subject to the jurisdiction of Court at Kolkata only.

E. Technical specification

1. **3A Authentication Server**
   a) Enterprise-grade authentication (WPA2-EAP)
   b) Digital certs
   c) 50 Concurrent Device Licenses
   d) Data Transfer Module
   e) Net Kapture Module
   f) Walkin Voucher Module
   g) Web Surfing Logger Module
   h) SMS Gateway Module

   For details technical feature please refer Appendix-I

2. Wi-fi Controller

   a) Enforce WPA2/WPA3 with strong passphrases, rotate Wi-Fi passwords, enable 802.11w Protected Management Frames (PMF)

   For details technical feature please refer Appendix-II

3. Access point

   a) Enforce WPA2/WPA3 with strong passphrases, rotate Wi-Fi passwords, enable 802.11w Protected Management Frames (PMF)

   For details technical feature please refer Appendix-III

F. Scope of Work

The scope of work shall cover Supply, Installation, Configuration, Testing, Commissioning, and Support of a Centralized Wi-Fi Management System. The objective is to provide a secure, scalable, and high-performance wireless network management solution that enables centralized monitoring, configuration, control, and optimization of Wi-Fi infrastructure across all designated locations

The Solution /Scope of Work :

1. Supply and commissioning of Hardware at the IEI data centre as per Annexure-I.

2. The bidders need to configure a separate VLAN in the existing managed switches for wi-fi network.
3. The access to wi-fi network should be authenticated using password /OTP etc.
4. Deployment of management software and licenses. Network integration with existing LAN/WAN, authentication servers, and security systems, configuration of access point discovery and on boarding.
5. Bidder has to make a physical visit of IEI prior to the submission of the tender document in order to assess the feasibility of implementation of the project.

6. Configuration and Customization :

   ➢ Centralized configuration of Wi-Fi policies, SSIDs, VLANs, QoS, and bandwidth controls.
   ➢ User authentication and authorization .
   ➢ Security configuration including encryption standards, rogue AP detection, and intrusion prevention.
   ➢ Role based access control (RBAC) for administrators.
   ➢ Custom dashboards, alerts, and reports as per operational requirements.

7. Monitoring and Management Features :

   The solution shall provide Real-time monitoring of access points, clients, and traffic with Centralized firmware and configuration management. Performance analytics and historical reporting, Fault management, alerts, and notifications, Capacity planning and usage statistics.

8. Testing and Commissioning :

   ➢ System integration testing to validate interoperability with existing infrastructure.
   ➢ Functional testing of management, monitoring, and security features.
   ➢ Final commissioning and handover after client acceptance.

9. Documentation

The bidder shall provide comprehensive documentation including System architecture and design documents with Administrator and user manuals, Network diagrams and IP addressing details with Test results and commissioning reports.

10. Training and Knowledge Transfer

The bidder shall provide the Hands-on sessions for monitoring, troubleshooting, and reporting. Training materials and reference guides.

11. Support and Maintenance

The bidder shall provide the details as follows

➢ Warranty and support for all supplied hardware and software.
➢ Defined Service Level Agreements (SLAs) for fault resolution.
➢ Software updates, patches, and upgrades during the support period.
➢ Bidder has to provide onsite Technical support.

G. SLA Parameters

1. Vendor has to mention the Escalation procedure and matrix for customer complaints
2. Vendor has to provide services on 24 x 7 basis.
3. The vendor has to provide onsite support, when required during the warranty period i.e. five years includes both hardware support and software services
4. Call to be attended within four hours of the fault booking and resolution time is 6 hours
5. Vendor has to arrange for replacement of spares without any additional cost during the warranty period.

PART – A
Financial BID
Supply and commissioning of Authentication/Access Control
(Centralized Wi-Fi Management System) with Access Point at IEI-HQ

Sln	Description	Quantity	Unit Rate (Rs.)	GST Rate (in %)	Total Rate (Rs.)
1	3A Authentication server	1			
2	Wi-Fi Controller	1			
3	Access Points (including adapter and accessories) **(Specifications as given in Annexure-III)**	8			
4	Installation and configuration	-			
5	Other if Any				

Table: A

Authentication/Access Control (Centralized Wi-Fi Management System)			
Parameters	**Minimum Specifications**	**Bidder Compliance (Yes/No)**	**Product Documentation Reference**
Make	**Mention Make à**		
Hardware Specifications	10/100/1000 MBE Ports – Minimum 4 nos.		
	Configurable Internal/HA/WAN Ports		
	USB ports- Minimum 2		
System	Concurrent Session – Minimum 3,000		
	Concurrent Users – 150		
	New Sessions/ second- 600		
	Throughput of appliance --- 150 Mbps		
Technology	Operating System: - Linux		
	Technology: - Java JSP, servlets, shell script		
	Database: - Post greSQL or ORACLE		
	Appliance based solution & no third-party hardware required		
Deployment Modes	AAA, RADIUS Server, Access Gateway Database		
Features			
Authentication/Access Control	Inbuilt Radius Server, AAA		
Bandwidth &QoS Management	Subscriber base Bandwidth restriction		
	Bandwidth quota allocation based on individual and shared basis		
	Committed (CIR) bandwidth allocation		
	Burstable (CBR) bandwidth allocation		
	Tired Bandwidth Management		
	Time base Variable bandwidth allocation		
	Data usage based Variable bandwidth allocation		
	Bandwidth restriction based on data transfer		
Subscriber Management	Subscriber profile creation and activation based on check -in		
	Subscriber auto deactivation based on days, time and usage check-out		
	Self-subscription (sign-up) by Captive portal		
	Customer My Account Functionality		
	Forgot Password option – Email & SMS both		
	Authentication based on username and password		

Authentication Authorization & Accounting (AAA)	MAC address and IP address-based authorization		
	Accounting based on hours, days and usage- basis Authentication through web-based login		
	EAP 801.X authentication		
	Subscriber portal redirection on http Surfing Request		
	Web based authentication redirection for unauthenticated users		
	LDAP or ADS integration for third party authentication		
	External Captive Portal		
User Management	Create, Activate, Renew, Suspend, Archive Users		
	User Management based reports		
	Hierarchical login limit for concurrency at different level		
Package management	Group-wise Package creation option		
	Prepaid subscription can be created for usage (data transfer) and time-based plans		
	Packages based on time (hours, days, month) and data transfer(usage)		
	Complimentary & Package Purchase Option		
	Facilitate Top up for Prepaid Plans		
	Seamless Roaming (Wired to Wireless)		
System Management	IP Pool Management		
	DHCP, DNS		
	Basic Firewall Management		
	Data Backup & Restore		
	Swift User Migration Facility		
	Many to One Public NATTING SmartNet)		
	SNAT Management		
	Multiple ISP Link Supported minimum 2 Links		
Captive Portal	Software shall offer captive portal technique which forces unauthenticated users' http and http request to a web-based authentication page having company logo & details. Create Customizable Login Page		
	HTTP - enabled		
	HTTPs Page redirection		
	Location base captive portal page		
	Create Page for SMS OTP based login		
	User Self Registration		
	Buy internet plan through online payment facility		

	Social Media based Authentication Login		
	BYOD Support		
ACL Management	Role based Multiple Level Administration		
	Multi Functionality Dashboard Facility		
Reporting	Web Surfing Reports- User Name, IP		
	Data & Time based surfing Report		
	MIS Reports --- Number of Registration/Renewal		
Lawful interception	The software shall be integrated with third party syslog server and send all surfing details to Syslog server for any Cyber Crime inquiry		
Support & Services	Warranty – Must be quoted with 1-year comprehensive replacement and direct OEM 8 x 5 NBD Support. The quoted product should not get end of support/End of Life for next 1 years from the date of Tender submission.		

Specification for Wi-Fi Controller

Slno	Specification	Compliance	Deviation
1	Controller must have 2× 10/100 Mbps Ethernet Ports with 1x PoE Port and 1× USB 2.0 Port		
2	Controller support WDS or MESH networking*		
3	Controller shall support QoS and WMM latest technology		
4	Controller Supports Free Authentication Policy and Captive Portal Advertisement		
5	Controller shall support Band Steering, Beamforming, Airtime Fairness and Load Balance features		
6	Controller shall support rogue access point detection		
7	Controller Must Support Support 10000 Clients		
8	Controller should support management VLAN		
9	Controller should support Captive portal and Rate limit feature		
10	Controller shall support Reboot Schedule, Wireless Schedule and Wireless Statistics based on SSID/Controller/Client		
11	Intelligent RF control plane for self-healing, and self-optimization		
12	Controller Shall support Wireless Mac Address Filtering, Wireless Isolation Between Clients and SSID to VLAN		
13	Controller shall support 802.1X authentication and external radius server		
14	Controller shall be able to assign end User the IP address as received from backend core DHCP Server.		
15	Controller shall support Cloud Managebility and SDN Ready		
16	Controller shall come with atleast 100 Devices Including Switches , Gateways and AP from Day 1		
17	Controller shall come with life time no Recurring or renewal cost		
18	Supports Layer 3 Adoptation		
19	Controller shall Manage Multiple Sites over Web with the Centralized Controller in a Single Location		
20	Controller shall Intuitive Real Time Monitoring and data usage		
21	Controller shall support remote upgrade and access control features		
22	Controller Shall support L3 management, SNMP, Email notification		
23	Controller Shall Support Auto-backup via USB		
24	Controller shall support smooth operation on 50 Degeree Celsius		
25	Controller shall have CE, FCC, RoHS		
26	Device OEM must be ISO 9001 and 14001 Certified		
27	Device OEM must be Gartner Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure in Last 4 Quarter		

Specification for Indoor AP

Sln	Specifications	Yes/No	Deviation if any
1	AP shall have hardened enclosures for indoor deployment and shall have a robust design for durability		
2	It shall have dual radios for concurrent dual band (5 GHz / 2.4 GHz) operation		
3	It shall have Simultaneous 574 Mbps on 2.4 GHz and 1201 Mbps on 5 GHz totals 1775 Mbps Wi-Fi speeds		
4	AP must support 1024 QAM		
5	AP must Support WEP, WPA-Personal/Enterprise, WPA2-Personal/Enterprise, WPA3-Personal/Enterprise		
6	Minimum 1 number of 1 Gbps Ethernet port RJ-45.		
7	AP shall support Multi user MIMO		
8	AP shall support Outfitted with the latest 802.11ax technology		
9	The AP shall comply with IEEE 802.11ax at a minimum and be backwards compatible to IEEE 802.11a/b/g/n/ac standards.		
10	AP shall operate at least in full 2X:2 MIMO or more mode without any loss of features or capabilities		
11	AP shall Support PoE 802.3at PoE for convenient and affordable installation		
12	AP must support 20 MHz, 40 MHz and 80 MHz channels.		
13	The AP shall provide a minimum of 20 dBm EIRP for both 2.4 GHz and and 23 dBm for 5 GHz frequencies. Field deployment shall be with EIRP as per regulatory guidelines.		
14	AP shall support QoS and WMM latest technology		
15	AP shall support Multiple operating modes including managed AP and standalone AP mode		
16	AP shall support Band Steering, Beamforming, Airtime Fairness and Load Balance and OFDMA features		
17	AP shall support rogue access point detection		
18	AP shall have dual-Band Omni-directional Antenna, either internal or external. Field deployment shall be with EIRP as per the WPC guideline.		
19	AP should be compatible for Simple mounting on any wall or ceiling surface		
20	AP should support management VLAN		
21	AP should support Captive portal and Rate limit feature		
22	AP shall support Reboot Schedule, Wireless Schedule and Wireless Statistics based on SSID/AP/Client		
23	Intelligent RF control plane for self-healing, and self-optimization		
24	AP Shall support Wireless Mac Address Filtering, Wireless Isolation Between Clients and SSID to VLAN Mapping		
25	AP shall support 802.1X authentication and external radius server		

26	AP shall be able to assign end User the IP address as received from backend core DHCP Server.		
27	AP shall support Hardware controller or Software controller and Zero-Touch Provisioning (ZTP)‡, Centralized Cloud Management, and Intelligent Monitoring.		
28	Shall support Operating Temperature of :0–40 ℃ (32–104 °F)		
29	Device OEM must be must be ISO 9001 & 14001 Certified at the time of bidding		
30	The proposed product country of origin must be Made in India		
31	Device OEM must be Gartner Magic Quadrant for Enterprise Wired and Wireless LAN Infrastructure in Last 4 Quarter		