

(e-RFP) REQUEST FOR PROPOSAL

FOR

**Supply, Setup/Installation and
Commissioning of Network Infrastructure**

(Wireless Area Network)

AT

IPA OFFICE

TENDER No: IPA/IT/WAN/2024, Dated 20.03.2024

Last Date of submission: 1500 hrs. On 08.04.2024



INDIAN PORTS ASSOCIATION,

1st Floor, South Tower, NBCC Place

Bisham Pitamah Marg, Lodhi Road

New Delhi – 110003

March' 2024

Tender Fee - INR 5000/-

INDIAN PORTS ASSOCIATION

Ref-IPA/IT/WAN/2024

Date: 20.03.2024

Sub: Supply, Setup/Installation and Commissioning of Network Infrastructure at IPA

Sir,

Tender document in respect of the above mentioned is invited from eligible bidders. Tenders can be downloaded from the CPP Portal and IPA website www.ipa.nic.in.

Please note that tender is to be uploaded on the CPP Portal on or before 08.04.2024 up to 3.00 P.M. No hard copy shall be submitted.

The Tender should be signed on each page, dated and witnessed in all places provided for in the documents; all other papers should be initialed.

The tender should be accompanied by tender fee and Earnest Money Deposit (EMD) to be submitted through NEFT/RTGS. Tenders without tender fee and earnest money deposit shall be summarily rejected. The Technical Bids will be opened on **08.04.2024 at 3.30 P.M.** and Price Bids of technically qualified bidders will be opened at a later date.

The person, signing the tender on behalf of company/firm or on behalf of another person shall attach with tender a certified copy of proper authority / power of attorney on a non-judicial stamp paper of requisite value duly executed in his favour by such person, company / firm and must state specifically that he has authority to sign such tenders for and on behalf of such person or company / firm as the case may be, and in all matters pertaining to the contract.

This letter shall form part of the **“CONTRACT”** and must be signed and returned along with the tender documents.

Yours faithfully

Managing Director

NOTICE INVITING TENDER

Tender notice for Supply, Setup/Installation and Commissioning of Network Infrastructure at IPA

Ref:- IPA/IT/WAN/2024

Date: 20.03.2024

Sl. No.	Name of the work	Estimated cost (Rs.)	Earnest Money Deposit (EMD)/ Bid Security (Rs)	Completion Time	Last Date of Submission Tender
1.	Supply, Setup/Installation and Commissioning of Network Infrastructure	33,00,000/- (without GST)	Rs. 68,000/-	30 Days	08.04.2024 upto 3.00 PM

1. Tenders can download from the CPP Portal www.eprocure.gov.in and IPA website www.ipa.nic.in. Completed tenders shall be uploaded on the CPP Portal only with requisite tender fee of Rs.5000/- (non refundable) including GST and EMD of Rs.68,000/-, including all supporting documents on or before the due date and time of submission.
2. Tenderers registered as Micro and Small Enterprises (MSEs) as defined in MSME Procurement Policy issued by department of Micro, Small and Medium Enterprises or are registered with the Central Purchase Organization or the concerned Ministry or Department or Startups as recognized by Department of Industrial Policy and Promotion are exempted from the payment of tender fee and earnest money deposit. However, tenderer seeking exemption from payment of tender fee and earnest money deposit shall submit the proof of the same along with their technical bid.
3. Intending tenderer's should have valid registration with appropriate authorities for statutory taxes as applicable.
4. The intending tenderer's should have satisfactorily completed similar works during last 3 (Three) years ending 31.03.2023. Eligibility criteria for this work, (i) Three similar works costing not less than Rs.13.20 lakhs- each, or (ii) Two similar works costing not less than the amount of Rs. 19.80 lakhs each or (iii) One similar work costing not less than Rs.26.40 lakhs. Similar nature work means: "Supply, Setup/Installation and Commissioning of Network Infrastructure". The values mentioned above are exclusive of GST.
5. IPA reserves the right to reject any or all the tenders without assigning any reason thereof and also not bound to accept lowest tender. Tenders in whom any of the prescribed conditions are not fulfilled or found incomplete in any respect are liable to be rejected.
6. Canvassing, whether directly or indirectly in connection with tender is strictly prohibited and the tender submitted by the contractors who resort canvassing will be liable to be summarily rejected.
7. The Technical Bid submitted by the parties shall be opened on the same day i.e. 08.04.2024 at 03:30 PM in the CPP Portal. The price bids of technically qualified parties

shall be opened at a later date and the technically qualified parties shall be informed in advance about the opening of their price bid.

8. Bank Account and other relevant information are as follows;

	Particulars	Details
1	Tender Availability	20/03/2024 from 18:00 hrs
2	Pre-Bid Meeting: Venue- IPA Conference room	01/04/2024 at 15:30 hrs
3	Last Date	08/04/2024 before 15:00 hrs
4	Technical proposal Opening	08/04/2024 at 15:30 hrs
5	Financial Bid Opening	To be notified
6	Letter of Award	To be intimated
7	Date of start of work	To be intimated to Selected Bidder
8	Cost of Tender in the form of NEFT	INR 5,000/- (including GST)
9	Earnest Money Deposit	INR 68,000/-
10	Contact Details	1. Selva Ratha Email:- dgmit-ipa@gov.in 2. Prema Kumar Pillai Email: prem.mpt@gmail.com Mobile: 9822388841 3. Amit Kumar Sethi Email: amitsethi.nmhc@yahoo.com Mobile: 8335056653

Details for making payment of processing fee and EMD through NEFT are as follows:

Name of the Organization	INDIAN PORTS ASSOCIATION
Name of the Bank and Branch	Indian Overseas Bank Lok Kala Manch, Lodhi Colony, New Delhi
Account No.	149801000002360
IFSC Code No.	IOBA0001498
Beneficiary E-mail ID	ipa@nic.in
IPA GSTIN	07AAATI0349A1Z9

All communications including the submission of Proposal should be addressed to;
 Managing Director
 Indian Ports Association
 1st Floor, South Tower, NBCC Place
 Bhisham Pitamah Marg, Lodhi Road New Delhi-110003

INDEX OF TENDER DOCUMENTS

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INSTRUCTIONS TO TENDERS

1. Scope of Work and Services:

1. Supply & commissioning of Wireless Area Network (WAN) for entire IPA Office.
2. Wi-Fi facility should be available 24/7 without fail. The primary aim of Wi-Fi facility is to provide high speed internet access to all areas in IPA. Connectivity must be activated within 30 seconds.
3. The OEM should provide the required equipment's for access to the Wi-Fi facility and shall bear all the cost on account of development and setting up required infrastructure for the said services. Also, shall submit the details of drawing for approval prior to commencement of entire work.
4. Manage Operations and Maintenance (O & M) of Wi-Fi access points and associated network components.
5. Provide secure Wi-Fi internet access and back-end services as per policy finalised during the commencement of entire work.
6. Any structure, permanent or temporary, dismantled or destroyed during the execution of the work shall be refilled/remake or restore to its original condition by the bidder at his own cost.
7. Any extra electrical points and data points required in the server room or WiFi Router area shall be provided by the bidder at his own cost.
8. Detailed Bill of material included in this tender. However, IPA reserves the right for quantity variation due to increase/decrease in requirements. The bidder shall also provide all required equipment which may not be specifically stated herein but are required to meet the intent of ensuring completeness, maintainability and reliability of the total system covered under this specification.
9. The firm should satisfy themselves of the prevailing conditions (corrosion, power surge, rodents intrusion etc.) in the IPA and should guarantee and ensure that the equipment's would work / be made to work in case of any failure during the contract period.
10. Ensuring compliance with all Regulatory and Legal guidelines issued by Department of Telecommunications, TRAI and Government of India from time to time. At no point purchaser or its authorized entities shall be responsible for any non-compliance on account of non-adherence by the OEM

2. Tender Fee:

Tender fees in the form of electronic remittance of INR 5000/- (Total Rupees Five Thousand Only) to the IPA Bank Account (details mentioned at NIT) should be made towards Tender Fees before Due Date and Time. Scan copy of payment receipt (Bank Swift copy / UTR No. of payment made) should be uploaded along with technical offer. Tenders received without tender fee will not be accepted.

3. Earnest Money Deposit:

- a. The tender should be accompanied by UTR No. of electronic remittance of **INR 68,000/- (INR Sixty-Eight Thousand only)** to IPA's Bank Account (details mentioned at NIT) towards Earnest Money Deposit (**EMD**), refundable, except on withdrawal of the offer before decision and/or failure of the party to accept the contract, if awarded.
- b. Copy of Bank UTR No. of electronic transfer for Earnest Money Deposit (EMD) must be enclosed with the "Technical Offer" only and details should be indicated.
- c. Exemptions from EMD can be granted to Registered Small Scale Industries who can produce a certificate of exemption from NSIC / other recognized governing bodies as per Government regulations prevailing from time to time

IMP: TENDERS RECEIVED WITHOUT EARNEST MONEY DEPOSIT/CERTIFICATE OF EXEMPTION ARE LIABLE TO BE REJECTED.

4. Site Survey:

Before execution of the work, the bidder shall carry out the required survey of the routes at IPA Admin & New Building for Wi-Fi laying at no additional cost. The bidder shall prepare the survey report of these routes, furnishing all distances, details regarding position of joint boxes, etc. The survey report shall have to be submitted by Bidder to IPA for approval and requisite clearances need to be obtained before the work is commenced. The installation/ shall be carried out as per the approved drawings. Route maps shall be drawn to the scale.

5. Laying of network Equipment's:

The selected bidder shall be required to conduct the survey, design of the network, for WAN-Wi-Fi access point etc. at the locations and carry out the activities. The bidder has to:

- Lay Structured cabling in the selected buildings as per requirement.
- Install Rack, UPS, Switch and other network equipment.
- Conduit/Wiring/Fixing of Modular accessories for electrical wiring to supply electric power to WAN points.

6. Pre-Qualification & Technical Criteria cum Evaluation criteria for the Bidder

Parameter	Credential to be provided	Qualifying mark
Incorporation	Copy of Articles of incorporation	Company registered in India under the Companies Act
Turnover	Annual reports of the previous 3 years	Average Annual Turnover of over Rs. 10.00 Lakhs per annum in the previous three financial years
Project Execution Experience	Purchase Orders and Completion Certificate from Customer	Bidder should have executed Supply and installation of Enterprise Antivirus Solution during the last 3 financial years (2022-2023, 2021-2022, 2020-2021) as mentioned below: 1) One project worth Rs.26.40 lakhs OR 2) Two projects worth Rs 19.80 lakhs each OR 3) Three projects worth Rs 13.20 Lakhs each (Above Figures are estimate for 1 year contract period)
OEM Gartner Report	Copy of certificate / report	The OEM should be in the Leaders or Challengers or Visionaries quadrant of latest Gartner Report for Endpoint Protection 2021/2022.
Geographical spread	Address of the bidder's service support centers. Submit FORM A9 (GST Registration Certificate / Municipal / IPA Certificate should be submitted)	Bidder should have an office in commercial premises at New Delhi which is operational for last two years with qualified support engineers.
Not Blacklisted Company	Declaration stating the required	Should not be banned or black listed in any of the central Government / central PSUs / for the breach of any business contract for the Supply or Services. Should not be involved in business malpractices, such as evasion of Income Tax, Sales Tax etc.
Partners Certificate	Manufacturer Authorization Form	Bidder to submit MAF for back to back support from OEM
Compliance Sheet	Products Compliance sheets	Technical Specification compliance sheet

7. Network Architecture:

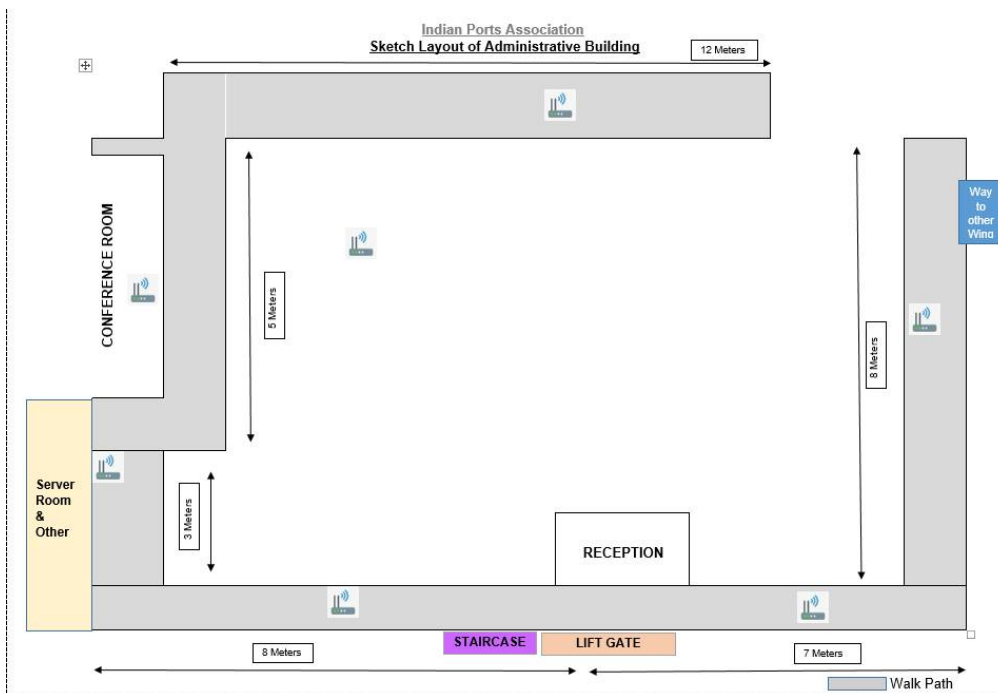
1. Bidder shall be responsible for the planning and design of the access network architecture (access controllers, backhaul connectivity, switches etc) to meet the technical, capacity and service requirements.
2. Bidder shall plan for high availability, reliability and redundancy of the access network elements to meet the requirements.
3. Bidder shall be responsible for providing and executing Cabling, testing etc. without affecting the aesthetics and user service of the IPA.

8. Wireless Access/Router Point Station:

S. No	Station Name
1.	Accounts Section Corner
2.	Work Area 1 (Near DAK Section)
3.	Conference Room
4.	Work Area 2 (Near Server Room)
5.	West Side Corner
6.	East Side Corner
7.	MD, Chamber
8.	Admin Section Corner
9.	Chairman Cabin (New building)
10.	Conference Room (New building)
11.	Work Area 1 (New building)
12.	Cabin 3 (New building)
13.	Near Cabin 1 (New building)

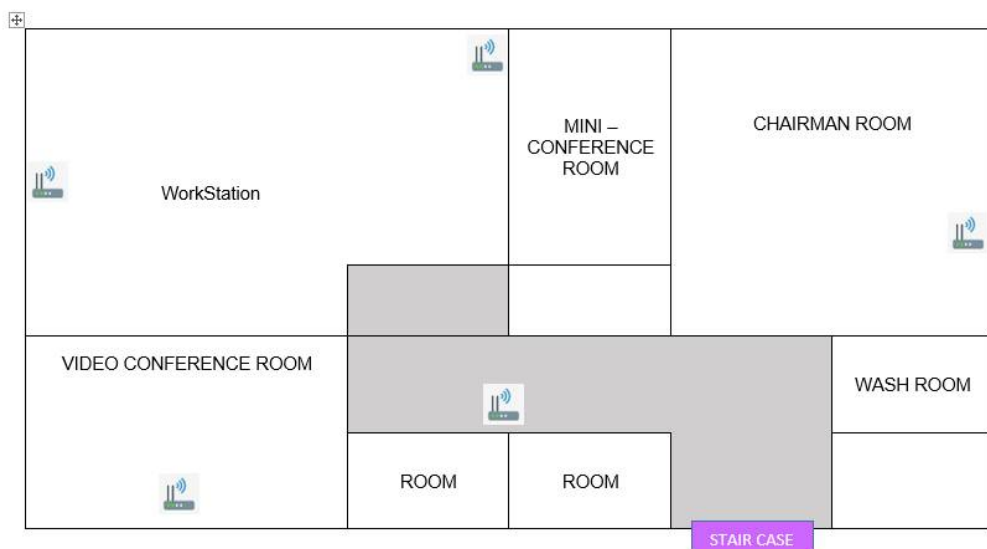
• Layouts:

a. Admin Building:



b. New Building:

Indian Ports Association
Sketch Layout of New Floor on NBCC Place



9. Indicative Bill of Materials:

S. No	Description	Indicative Qty
1.	Rack - 42U	1
2.	Rack – 12 U	1
2.a	2 KVA online UPS for Racks	2
3.	Router (To Terminate ISP line)	2
4.	Firewall	1
5.	Access Switch 24 port with 10G SFP POE	2
6.	Wireless controller	1
7.	Wireless access point	13
8.	OFC Cable laying – 6 core	Appr. 600 meters
9.	Access Switch 8 port with 10G SFP POE	2
10.	Patch Panel – 24 Port	3
11.	LIU – 24 Port	3
12.	PVC Conduit Pipe Laying in Existing Tray / Trench / wall (with required all fitting accessories)	Appr. 600 meters
13.	Installation and termination of Fiber termination/Interconnection LIU (Nos)	As required
14.	I/O Points with all accessories	20
15.	Wireless adapter for desktop	20
16.	Rack Installation with required accessories, Splicing, Punching / Crimping / Fixing / Termination of cable with label / Dressing of points (per point) color coding, etc)	
17.	Project Implementation Charges	
18.	AMC per annum (after completion of One Year Warranty)	

- c. Approved makes for all Active Components: CISCO, Juniper, HPE (Aruba), Huawei, Extreme Network. All active components Like Network Switches, PoE switches, Wireless Access Point and related SFP Fiber modules, etc must be of same single OEM.
- d. Approved makes for all Passive Cabling Components: LEGRAND, COMMSCOPE, DLINK. All passive components must be of same single OEM.
- e. Approved makes for UPS: APC, EATON, GE, Mitsubishi, Vertiv.
- f. The Bidder has to submit authorization certificates from the OEMs.
- g. Bidder has to submit operation and service manuals for each type of items supplied to be provided – 1 set of Service manuals will provide complete system details like operation, & maintenance of system with details configuration, relevant layout, diagrams.

10. Technical Specification:

a. Access Switch 24 Port PoE

Sr. No.	Description of Requirement	Compliance (Yes/No)
1	Shall be 1RU, 19"/23"/24" inch and ETSI Type 1 rack mountable	
2	24 RJ-45 autosensing PoE+ ports	
3	The switch shall support up to two 10-Gigabit ports (SFP+) in addition to the above ports.	
4	1 RJ-45 serial console port or mini USB connectors	
5	4GB SDRAM and 4 GB flash	
6	Shall have switching capacity of 128 Gbps.	
7	Shall have up to 95 mppspps switching throughput	
8	Switch should support stacking so as to operate as one unit	
9	Switch should support stacking so as to operate as one unit	
10	Shall support redundant power supply	
11	IEEE 802.1D Spanning Tree Protocol, IEEE 802.1w Rapid Spanning Tree Protocol and IEEE 802.1s Multiple Spanning Tree Protocol	
12	IEEE 802.3ad Link Aggregation Control Protocol (LACP)	
13	Shall support up to 4,000 IEEE 802.1Q-based VLANs	
14	Shall support GARP VLAN Registration Protocol or equivalent feature to allow automatic learning and dynamic assignment of VLANs	
15	Shall support IEEE 802.3at	
16	Shall have the capability to monitor link connectivity and shut down ports at both ends if uni-directional traffic is detected, preventing loops	
17	Shall support IEEE 802.1ad (QinQ can also be supported through Core / Distribution switch)	
18	Shall support Jumbo frames on GbE ports	
19	Internet Group Management Protocol (IGMP)	
20	Multicast Listener Discovery (MLD) snooping	
21	IEEE 802.1AB Link Layer Discovery Protocol (LLDP)	
22	Shall support Voice VLAN feature to automatically assigns VLAN and priority to devices like IP phones	
23	Static Routing for IPv4	
24	Static Routing for IPv6	
25	User Datagram Protocol (UDP) helper function to allow UDP broadcasts to be directed across router interfaces	

Sr. No.	Description of Requirement	Compliance (Yes/No)
26	Dynamic Host Configuration Protocol (DHCP) client and Relay	
27	Proxy ARP to allow normal ARP operation between subnets	
28	Access Control Lists for Layer 2 to Layer 4 traffic filtering	
29	Shall support global ACL, VLAN ACL, port ACL, and IPv4/IPv6 ACL	
30	Traffic classification using multiple match criteria based on Layer 2, 3, and 4 information	
31	Powerful QoS feature supporting strict priority (SP) queuing, weighted round robin (WRR) / SP+WRR or equivalent	
32	Shall support applying QoS policies on a port, VLAN, or whole switch, to set priority level or rate limit selected traffic	
33	IEEE 802.1x to provide port-based user authentication with multiple 802.1x authentication sessions per port	
34	Media access control (MAC) authentication to provide simple authentication based on a user's MAC address	
35	Dynamic Host Configuration Protocol (DHCP) snooping to prevent unauthorized DHCP servers	
36	Port security and port isolation	
37	STP BPDU port protection to prevent forged BPDU attacks	
38	STP Root Guard to protect the root bridge from malicious attacks or configuration mistakes	
39	IP Source guard to prevent IP spoofing attacks	
40	Dynamic ARP protection blocking ARP broadcasts from unauthorized hosts	
42	Configuration through the CLI, console, Telnet, SSH and Web Management	
42	SNMPv1, v2, and v3 and Remote monitoring (RMON) support	
43	sFlow (RFC 3176) or equivalent for traffic analysis	
44	Management security through multiple privilege levels	
45	FTP, TFTP, and SFTP/SCP support	
46	Port mirroring to mirror ingress/egress ACL-selected traffic from a switch port or VLAN to a local or remote switch port	
47	RADIUS/TACACS+ for switch security access administration	
48	Network Time Protocol (NTP) or equivalent support	
49	Shall have Ethernet OAM (IEEE 802.3ah) management capability	
50	Shall provide support for RoHS and WEEE regulations	
51	Shall have features to improve energy efficiency like variable-speed fans, shutoff unused ports etc	
52	Operating temperature of 0°C to 45°C	
53	Safety and Emission standards including UL 60950-1; IEC 60950-1; VCCI Class A; EN 55022 Class A	
54	The switch should have Enterprise class of product	
55	System should be tested and certified for EAL 2 or above or NDPP certified	

b. Wireless Access Point

Sr. No	Description of Requirement	Compliance (Yes/No)
1	The access point shall have one RJ-45 auto-sensing port (IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)	
2	One RJ-45 serial console port or mini USB connectors	
3	Dual core processor or equivalent or higher for high performance Required mode of operation: <ul style="list-style-type: none"> ● 2.4-GHz and 5-GHz mode: One radio will serve clients in 2.4-GHz mode, while the other serves clients in 5-GHz mode. ● Dual 5-GHz mode: Both radios inside the access point operate on the 5-GHz band, maximizing the benefits of Wi-Fi 6 and increasing client device capacity. 	
4	Shall support dual-radio IEEE 802.11 b/g/n and 802.11a/n access point	
5	Dual radio for IEEE 802.11a/n for high-throughput applications and IEEE 802.11b/g/n for legacy support and high-speed applications	
6	Integrated antennas for both IEEE radios, supporting two spatial streams and 3x3 MIMO with three spatial streams delivering data rates up to 450 Mbps per radio	
7	AP should support four/ Six external/embedded antennas	
8	Radio operation modes - Client access, Local mesh, Packet capturing to controller	
9	The access point shall be IEEE 802.3af/afPoE compliant and shall be provided with PoE injector of the same make for mentioned quantity	
10	Access points should be complied with 802.3at/af standard for power rating	
11	Both radios shall operate at full power and full performance on IEEE 802.3af/at PoE/Gigabit Ethernet	
12	Shall have Indoor, plenum rated enclosure	
13	Wi-Fi Alliance Certification- a/b/g/n Wi-Fi Certified	
14	Shall support self-healing, self-optimizing local mesh extending network availability to areas without an Ethernet infrastructure	
15	Per-radio software-selectable configuration of frequency bands	
16	Shall support up to 16 virtual service communities (Service Set), each with a unique SSID and MAC address	
17	Individual security and QoS profiles per Service Set	
18	Configurable DTIM and minimum data rate per Service Set	
19	Each Service Set can be mapped to separate IEEE 802.1Q VLANs	
20	Shall support direct source-to-destination traffic forwarding (distributed traffic forwarding) to maximize application delivery	
21	Wireless Multimedia (WMM) support	
22	Shall support both centrally controlled mode (configured and updated via wireless controller) and autonomous mode (without controller) which is software selectable	
23	Shall support L2 and L3 controller discovery	
24	Shall support auto-selection of RF channel and transmit power	
25	Shall support per-client event log records association, authentication and DHCP activities for easy diagnosis	
26	Shall support PCAP packet capture on WLAN or LAN interface	

Sr. No	Description of Requirement	Compliance (Yes/No)
27	Shall support SNMPv3 and web-based secured management interfaces (SSL)	
28	Operating temperature - 0°C to 50°C	

c. Wireless Controller

Sr. No	Description of Requirement	Compliance (Yes/No)
1	The wireless controller shall have 2 RJ-45 auto-sensing ports ((IEEE 802.3 Type 10Base-T, IEEE 802.3u Type 100Base-TX, IEEE 802.3ab Type 1000Base-T)	
2	Shall be offered with minimum 100 IEEE 802.11a/b/g/n Access Points support for centralized management and control in HA from Day 1	
3	Supported 802.11a/b/g/n Access Point capacity shall be upgradeable to 200 Access Points without hardware change	
4	Shall support up to 500 Access Points in HA	
5	Shall support fast roaming providing service transparency and fast hand-offs across Access Points within and across subnet boundaries	
6	Shall support per-user QoS and security services which follow users as they roam	
7	Shall support mobility domain interconnecting multiple wireless controllers and access points for scalable identity-based roaming across the enterprise	
8	Shall support controllers to provide high availability, license pooling and management ease ,Shall support up to 500 Access Points in HA	
9	Shall have full service capabilities for wireless networks controlled across the WAN	
10	Shall support central configuration of virtual service communities (or SSIDs) for QoS, authentication, encryption, and VLANs	
11	The proposed WLAN Architecture shall support distributed traffic forwarding allowing traffic to flow directly from source to destination, eliminating needless traffic to pass through the controller, delivering better performance and faster, more-responsive applications	
12	Shall support distributed 802.1x authentication allowing controlled access points to directly authenticate users through an external RADIUS server	
13	Shall support per-user or per-device security policies	
14	Shall support authentication based on user credentials (802.1X/EAP), hardware identifiers (MAC address, WEP key), and HTML login	
15	Shall support authentication and authorization through Microsoft Active Directory or internal or external RADIUS AAA services	
16	Shall support session tracking which compiles a log of user activity for security forensics	
17	Shall support Access Control Lists based on IP address, protocol types and port filtering and DSCP values	
18	Shall support VLAN mapping of guest access traffic for secure passage through corporate network	
19	Controller shall support eliminating rogue access points	

Sr. No	Description of Requirement	Compliance (Yes/No)
20	Shall have Captive portal for guest user authentication	
21	Shall support for Real-Time Location Services (RTLS)	
22	Shall control a network of 50 Access points (expandable up to 200 Access Points) ensuring consistent security, QoS, and roaming services from AP to AP	
23	Shall have scalability consistent in 802.11 a/b/g and 802.11n networks	
24	Shall support central management of wireless access point operating modes, including infrastructure (bridging) and Local Mesh	
25	Shall support plug-and-play auto-discovery and software installation for easy access point deployment	
26	Shall have easy-to-use web-based administrator interface	
27	Shall have one console port for local management access	
28	Shall support seamless integration with wired network, leveraging existing L2/L3 infrastructure resources, e.g., QoS, VLANs, NAC, MS Active Directory and RADIUS AAA	
29	Shall support RADIUS activity statistics collection per-user for billing by data volume and elapsed session time	
30	Operating temperature of 5°C to 40°C	

d. Rack 42U

S. No	Item	Description of Requirement	Compliance (Yes/No)
1	Dimension	42U (600x1000)	
2	Material	Aluminum	
3	Cooling	Provision for heat dissipation for side-to-side and Front-to-Back units	
4	Cable Entry	Top and Bottom gland cable Entry trays with brush	
5	Side Panels	Full Side Panels for both sides	
6	Front Door	Front door with latch and ventilation holes.	
7	Back Door	Back door with latch and ventilation holes.	
8	PDU	2* Dual 32 A PDU	
9	Power Outlets	2* 16 receptacle Power Connectors each connected to separate PDUs	
10	Extra Units	Keyboard Drawer, 2x fixed tray	
11	Accessories	Nuts and washers for mounting equipment & slides.	
12	Cable Managers	Adequate cable managers for units.	
13	Depth Support	4 * Depth Support channels	
14	Support	The rack should not be an end of life / end of service product.	

e. UPS

S. No	Item	Description of Requirement	Compliance (Yes/No)
1	Technology	True ONLINE (Double Conversion) PWM technology using IGBTs for switching at high frequency (>15 KHz)	
2	Connector	SNMP Connectivity	
3	Electrical Input	Single Phase / Three Phase - depending on the proposed solution, 230 V AC	
4	Electrical Input	Voltage Range 155 – 280 V on Full Load	
		Voltage Range 110 – 280 V on less than 70% Load	
5	Electrical Input	Frequency Range 45 – 55 Hz	
6	Electrical Input	Efficiency AC to AC: > 85% (AC to AC)	
7	Electrical Output	230V AC	
8	Electrical Output	Frequency: 50 Hz + 0.25Hz (free running); + 2Hz (sync mode)	
9	Electrical Output	Voltage Regulation: +1% on mains/batteries	
10	Electrical Output	Overload Capacity: 125% for 5 min., 110% for 10 mins.	
11	Electrical Output	Waveform; Pure Sine wave	
12	Protection	Electronic Overload Sensing, and circuit breaker protection.	
13	Protection	Overheating, Output short circuit, low battery, input over/under voltage etc.	
14	Battery Type	Sealed Maintenance Free Battery, Mains & Battery with necessary indicators, alarms and protection with proper battery storage stand	
15	Backup Time	Minimum 2 hour backup on rated load	
16	DC Voltage	MIN. : 240 V	
17	Charging Features	Adjusted to about 10% of battery capacity for fast charging.	
		1. Boost/trickle charging facility	
		2. Uncontrolled rectifier with high efficiency and reliability.	
		3. Low battery protection to avoid deep discharging of batteries.	
		4. Self-test diagnostic feature	
18	Other Features	UPS Bypass Automatic on Overload or UPS Failure	
19	Other Features	Monitoring panel with LCD display to provide following information:-	
		1. Input/output voltage	
		2. Input/output frequency	
		3. Load current	
		4. Charging current	
		LED display for:- UPS on, battery operation, bypass, alarm, battery charge level, etc. Alarms for :- Mains failure, low battery, overload etc	

S. No	Item	Description of Requirement	Compliance (Yes/No)
20	Other Features	RS 232 Standard Interface port in conjunction with UPS monitoring software provides information about UPS health, status, battery backup, etc.	
21	Environmental	Temperature 0-400C operating, -10 to + 60 deg C	
22	Environmental	Humidity 0 – 95% RH non-condensing	
23	Environmental	Audible noise < 50 dB (A)	
24	Mandatory Compliance	Safety certified to IEC standards or as per applicable in Indian law	
25	Mandatory Compliance	EMC certified to IEC standards.	
26	Mandatory Compliance	ISO 9001:2000 and ISO 14001 certified ETDC/ERTL test reports for above specifications.	
27	Mandatory Compliance	Dimension Light Weight/Smaller Footprint	

11. Period of validity of bid: The bid shall remain valid for 90 days from the last date of submission of bids. If any bidder withdraws his tender before the said period shall -without prejudice to any other right or remedy, be at liberty to forfeit the Bid Security absolutely.

12. Annual Maintenance Contract

1. The bidder should enter into a comprehensive AMC for 3 years from the date of expiry of the warranty period of 1 year (from the date of Final Acceptance Test of the Networking system).
2. Annual Maintenance Contract amount will be paid on half yearly basis.
3. Monthly Routine and Breakdown Networking System Maintenance.
4. Networking system should be up for more than 99% in a Quarter.
5. In case the system downtime is less than 99% in a quarter, a penalty as admissible will be imposed.
6. Uptime for a quarter is calculated as under:
 1. 24 Hrs X 90 days (in a quarter) = 2160 Hours
7. The cost of the repairing or replacement of faulty part/component/device during AMC period of 03 year has to be entirely borne by the Bidder.
8. All expenses related to part/component/device, including hiring of specialized technical expertise, in case required, has to be borne by the Bidder during AMC period.
9. The Bidder also has to make alternate arrangement in case of major failure happening in the network, due to which services may be affected for longer period. After repairing or replacement of the part/component/device, the Bidder needs to put the same into operation.
10. All the Hardware problems should be resolved immediately. In case of replacement of the Spares, a spare with similar configuration or a spare of Higher configuration (at no extra cost) should be provided.
11. The AMC is comprehensive, covering all repairs and replacements.

13. Schedule for completion of tasks:

The selected bidder would be required to Drilling, Digging, levelling, cabling, Install, Commission, test and operationalize the Networking & Infrastructure in 30 working days of time from the date of acceptance of work order/LoI.

14. Evaluation Criteria:

1. The Bidder should comply the compliance sheet.
2. All Documents are required to be submitted at CPP portal only, tender will be evaluated/assessed strictly as per the documents submitted with the technical offer. Any shortcoming in information/documents submitted with technical offer will be intimated to the party at the sole discretion of IPA to fulfill the shortcomings.
3. Once a tender is accepted on technical grounds, then the selection among such technically qualified Tenderers would normally be only on the basis of rates quoted. However, the IPA reserves the right to reject all / any of the tenders, and the decision of the IPA in this regard shall be final and binding.

15. Term and Conditions:

1. The technical specifications are the minimum requirements of the IPA. The Bidder is at liberty to indicate higher specifications than the minimum level. The IPA reserves the right to place order at the higher specifications offered by the Bidder. Similarly, the support & warranty period is the minimum required. The Tenderer is at liberty to offer a higher support & warranty period and the Purchaser / Indenter reserves the right to avail of the longer support & warranty period offered.
2. This is purely work completion contract, it is not a labour contract, In case any mishaps to the worker/s while on duty IPA not responsible for his or their incident or accident or death or any claim against us.
3. All workers should be advised to behave politely and ensure no damage is done to any of the common and private properties. In case of any operational issues, they should only communicate with the authorized representatives of the IPA and not with residents directly.
4. The site should be completed cleaned of waste material, rubbish etc. and handed over on completion of the site to the IPA.
5. The work is to be carried out without any hindrance to the regular activities in that area.
6. The Bidder can inspect and do the site survey during official time from 10.00am to 04.00pm on 26.03.2024, 27.03.2024 & 28.03.2024.
7. The EMD shall be forfeited if successful bidder fails to supply the goods/equipment in stipulated time or fails to comply with any of the terms & conditions of the contract or fail to sign the contract.

8. The successful Supplier/ Bidder shall, within fifteen (15) days of the notification of Contract award, provide a Performance Security deposit for an amount of 3% of the value of the awarded contract.
9. Refund of Performance Security Deposit: The Performance Security deposit shall be refunded after two months of the expiry of AMC period.

16. Submission of Tender:

The tender shall be submitted online in two part, viz., technical bid and financial bid (BOQ). All the pages of bid being submitted must be signed and sequentially numbered by the bidder irrespective of nature of content of the documents before uploading.

The Bidder shall quote the Technical and Financial Bids as per the format enclosed with tender document. The Bidders should submit their all relevant documents before last date and time of bid submission.

The offers submitted by Fax/email shall not be considered. No correspondence will be entertained in this matter.

17. Award of work:

The selection of the lowest bidder will be on the basis of the total amount inclusive of all taxes & duties etc. No comparison will be made on individual item/activity basis. Price bid will be evaluated for the bidders, who qualifies in the evaluation criteria and its compliance as per the specification / technical requirement specified in the document. L1 will be decided on the basis of Total price quoted by bidder for providing of implement the full material & solution successfully along with 3 years' AMC.

18. Payment:

60% of the payment will be made against the delivery and 40% of the payment will be released against the installation and testing as certified by Engineer-in-Charge.

19. Taxes and Duties:

Supplier shall be entirely responsible for all taxes, duties, license fees, etc, incurred until delivery of the Contracted Goods & services to the Purchaser. No tax or duty will be payable by the purchaser.

20. Applicable Law:

The Contract shall be interpreted in accordance with the laws of the Union of India & will be under the jurisdiction of court in Delhi.

21. Penalty:

In case of extension in the delivery and/ or installation/ completion period is granted with full liquidated damages, the recovery shall be made from 2% to 10% of value of products and/ or service which the bidder has failed to supply or complete.

During AMC, in case the reported problem is not identified and rectified, a penalty of 0.1% of the Project Cost for per day of Delay subject to a Maximum of 10% of the project cost. In case the %age of Penalty levied is more than 10% of the Total Project cost, then the following action will be initiated: Termination of Contract.

22. Project Period:

The project to be completed in 30 working days of time from the date of acceptance of work order/LoI.

FORM OF TENDER-CUM-BID SECURITY DECLARATION

To

The Managing Director,
Indian Ports Association
New Delhi - 110003

I/We have read and examined the following documents relating to.....
.....

(Name of the Work)

- (a) Notice inviting tender.
- (b) Instructions to Tenderers
- (c) Technical Specifications
- (d) General Conditions of Contract including Contractors, Labour Regulations, appended to these conditions together with the amendments there to If any.
- (e) Special Conditions of contracts if any.
- (f) Schedule of Quantities/Price Bid
- (g) Corrigendum/Addendum, if any

I/We hereby tender for execution of the works referred to in the aforesaid documents upon the terms and conditions contained or referred to there in and in accordance in all respects with the specifications, designs, tender drawings and other relevant details at the rates contained in Schedule and within the period(s) of completion as stipulated in Appendix.

In consideration of I/We being invited to tender, I/We agree to keep the tender open for acceptance for 120 days from the due date of submission thereof and not to make any modifications in its terms and conditions which are not acceptable to the IPA.

A sum of Rs. 68,000/- is hereby deposited as Earnest Money Deposit through NEFT/RTGS.

If I/We withdraw or modify the tender during the period of validity as mentioned above, or if I/We are awarded the contract and I/We fail to sign the contract, or to submit a performance security before the deadline defined in the tender document (unless the said deadline is extended by IPA), IPA shall be at liberty to reject our tender/cancel the contract and debar us from participating in any tender for a period of three years.

Should this tender be accepted, I /We agree to abide by & fulfill all the terms conditions of aforesaid document.

If after the tender is accepted, I/we fail to commence the execution of the work as provided in the conditions. I/We agree that IPA shall without prejudice to any other right or remedy is at liberty to forfeit the said earnest money absolutely and reject the tender.

Signature of the Tenderer

Date.....

Address

APPENDIX -I

1. Competent Authority : Indian Ports Association or its Authorized executives
2. Earnest money/Security deposit
 - a) Estimated cost of the Works : Rs. 33,00,000- (without GST)
 - b) Earnest money : Rs. 68,000/-
 - c) Performance Security: : 3%
3. Time allowed for execution of work : 30 days
4. Liquidated Damaged :0.5% (one half of one percent) per week subject To a Maximum 10% value of the contract
5. Defect Liability Period :12 months from the date of Completion of work in all respect

Annexure – I

To filled according to the prices quoted in the Price bid

S. No	Description	Qty	Model & Make
1.	Rack - 42U	1	
2.	Rack – 12 U	1	
2a.	2 KVA online UPS for Racks	2	
4.	Router (To Terminate ISP line)	2	
5.	Firewall	1	
6.	Access Switch 24 port with 10G SFP POE	2	
7.	Wireless controller	1	
8.	Wireless access point	13	
9.	OFC Cable laying – 6 core	Appr. 600 meters	
10.	Access Switch 8 port with 10G SFP POE	2	
11.	Patch Panel – 24 Port	3	
12.	LIU – 24 Port	3	
13.	PVC Conduit Pipe Laying in Existing Tray / Trench / wall (with required all fitting accessories)	Appr. 600 meters	
14.	Installation and termination of Fiber termination/Interconnection LIU (Nos)	As required	
15.	I/O Points with all accessories	20	
16.	Rack Installation with required accessories, Splicing, Punching / Crimping / Fixing / Termination of cable with label / Dressing of points (per point) color coding, etc)		
17.	OFC patch cable	25	
18.	CAT6 patch cable	50	
19.	Wireless Adapter for desktop	20	
20.	Any Additional Items		
21.	Project Implementation Charges		
22.	AMC per annum (after completion of One Year Warranty)		
	1 st Year		
	2 nd Year		
	3 rd Year		

BILL OF QUANTITIES (BOQ):
(Price Bid)

(Prices to be quoted only for the make and models mentioned by the bidder in Annexure –I)

Sl. No	Description	Qty	Unit Price	Total Price
1.	Rack - 42U	1		
2.	Rack – 12 U	1		
2a.	2 KVA online UPS for Racks	2		
4.	Router (To Terminate ISP line)	2		
5.	Firewall	1		
6.	Access Switch 24 port with 10G SFP POE	2		
7.	Wireless controller	1		
8.	Wireless access point	13		
9.	OFC Cable laying – 6 core	Appr. 600 meters		
10.	Access Switch 8 port with 10G SFP POE	2		
11.	Patch Panel – 24 Port	3		
12.	LIU – 24 Port	3		
13.	PVC Conduit Pipe Laying in Existing Tray / Trench / wall (with required all fitting accessories)	Appr. 600 meters		
14.	Installation and termination of Fiber termination/Interconnection LIU (Nos)	As required		
15.	I/O Points with all accessories	20		
16.	Rack Installation with required accessories, Splicing, Punching / Crimping / Fixing / Termination of cable with label / Dressing of points (per point) color coding, etc)			
17.	OFC patch cable	25		
18.	CAT6 patch cable	50		
19.	Wireless Adapter for desktop	20		
20.	Any Additional Items			
21.	Project Implementation Charges			
22.	AMC per annum (after completion of One Year Warranty)			
	1 st Year			
	2 nd Year			
	3 rd Year			
Grand Total				