

Corrigendum – GEM/2020/B/859973

1. Corrigendum-1 against GEM Bid No. GEM/2020/B/859973 Operational

1.Information to bidders for “Supply of Wireless Access Point” (This corrigendum to bid No. GEM/2020/B/859973 Dt.03.11.2020. In Case of discrepancies related to terms and conditions etc. information given in this shall supersede) Items of the bid shall be quoted as per Technical specifications given in Annexure-A&B.

2.In the specification wherever support for a feature has been asked for it will mean that the feature should be available without RailTel requiring any other hardware/software/licenses. Thus all hardware/software/licenses required for enabling the support/feature shall be included in the offer.

3.OEM or Authorized distributor/Partner of OEM should have a registered office in India to provide sales and 24x7 support in India. The certificate to this effect should be submitted. The bidder should be either OEM or his authorized dealer/distributor. In case of the authorized distributor/partner certificate from the OEM to this effect should be submitted. If OEM is quoting then OEM should submit the certificate.

4.Equipment offered shall have complete data sheets and detailed description on OEM website.

5.Bidder shall submit the detailed BOM of the equipment offered duly verified and certified by the respective OEM. The detailed BOM shall indicate quantities and price breakup of various modules/ cards/ Licenses required for the equipment.

6.GSTIN ID of vendor should be provided from where goods will be supplied.

7.Inspection : Pre-shipment/Pre-dispatch inspection shall be carried out at manufacturer's/ supplier's works by RailTel's authorized representative.

8.1 Tender Cost: Estimated cost of the Tender is Rs. 1310213/- (Rupees Thirteen Lacs Ten Thousand Two Hundred Thirteen only)8.2 Earnest Money Deposit (EMD)/ Bid Security Rs. 26204/- (Rupees Twenty Six Thousand two Hundred Four only) to be paid online through RTGS/Internet Banking with Beneficiary as RailTel Corporation of India Limited Account No. 38541405681 IFSC Code. SBIN0001054 Bank : State Bank of India Branch :

Chowringhee Branch (Branch Code : 1054) 38B Jawaharlal Nehru Road Kolkata - 700071. The bid received without EMD will be summarily rejected.9.Eligibility Criteria for OEM:

a. The Equipment offered by the OEM or equipment of the same series/family from the same OEM should have been satisfactorily working in Government/PSUs/Telecom Service Providers network for at least 12 months as on opening of bid in India or Abroad. The certificates from the actual users will have to be submitted online.

b.The OEM should have supplied at least 35% of the tendered quantity of the equipment offered or equipment of the same series/family during last preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid to Government/PSUs/Telecom Service Providers. OEM should submit self-certificate with proper contact detail of clients along with quantities supplied (Firm Name Contact person Designation Telephone Number Fax Official mail-id etc.). The same should be issued by authorized signatory. (bidder has to submit the certificate to this effect from the OEM.)

c. The OEM should have proven facilities for Engineering manufacture assembly integration and testing of Wireless Access Point and basic facilities with respect to space Engineering Personnel Test equipment Manufacture Training Repair Service Center Supports for at least past three years in the country from where the proposed equipment are planned to be supplied. In case OEM is located outside India it should have training repair and service center facilities in India also. The certificates/Undertaking for the same will have to be submitted online.(The bidder will have to submit the proof of establishment for the facility)

10.Eligibility Criteria for Bidder:

a. The tenderer should have executed order of supply/ provision of Telecom Equipment like

Wireless Access Points/ Switch/ Router/ Server during last preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid as per following :

(A)Single order at least 35% of the tender

tendered value OR .(B)Two orders of at least 20% each of tendered value OR (C)Three orders at least 15% each of the tendered value. Satisfactory Performance certificate issued by customer/s for the Purchase Orders/ Work Orders should be enclosed.

b.The bidder should have annual turnover of minimum 150% of tendered value during the last 3 financial years (i.e. current year and three previous financial years). The bidder should provide Audited Balance Sheets / Annual Reports as documentary evidence and for current year the statutory Auditor's certificate for turnover for current year up to the date of bid opening for which Balance sheet may not be available or other such documents so as to establish the financial soundness of their company for the preceding three financial years.

c. Bidder should have authorization from the OEM.

11.SLA:After having been notified of the defects/service requirement during the warranty period Seller has to complete the required Service / Rectification within a time limit of max. 7 days. If the Seller fails to complete service/rectification within defined time limit a penalty of 0.5% of Unit Price of the product shall be charged as penalty for each week of a delay from the seller & upto max. of 100% of Unit Price of the product.The seller can deposit the penalty with the Buyer directly else the Buyer shall have a right to recover all such penalty amount from the running bills or from the Performance Security(PBG).

12.Long Term Maintenance Support: Deleted

13.Payment Conditions:-

i. 100% payment against full supply

ii.80% payment against part supply The following documents are to be submitted for payment:

a. Original Tax Invoice

b. Delivery Challan

c. Original Consignee receipt

d.Original Inspection Certificate

e.Insurance Certificate.

f.Warranty Certificate of OEM Bill passing Authority : Addl.GM/ Project Bill Paying Authority : Jt.GM/Fin./ER

14.Online Submissions:The bidder is required to upload and submit the following documents online before bid end date & time of bid. The bid end date & time is 24 .11.2020 at 15:00 hrs. and the bid will be opened at 15:30 hrs of 24.11.2020.

i.EMD

ii.BOQ of the offered equipment.

iii.Clause wise compliance along with all mentioned documents/annexures for all clauses of GeM Bid and ATC documents.

iv.Data Sheet of the offered equipment.

v.Financial (Certified copies of audited balance sheets/annual reports of last three preceding financial years) and Technical Eligibility Criteria documents.

vi.Technical Compliance of all Specification of items as per GeM Bid and ATC documents.

vii.Certificate from the End-user against the Eligibility criteria for OEM para 9.

viii.Proof of document required against Eligibility criteria of Bidder vide para 10.

ix.OEM Authorization.

15.Note:

1. Non submission of above document online within the prescribed time will lead to rejection of bid summarily.

2. The Bidder has to indicate bid number and the name of the bidding entity in the transaction details field at the time of online transfer. Bidder has to upload scanned copy/ proof of online payment/ transfer along with bid.

- 3.The bidder is required to give acceptance of all the clauses mentioned in the “Information to the Bidders” document is mandatory. Any deviation / non-acceptance may lead to rejection of the bid.
- 4.Information to Bidder viz. corrigendum /addendum/ amendments etc. for this bid shall be posted on www.railtelindia.com only.
- 5.This bid is governed by the Specific Additional Terms & Conditions and General Terms & Conditions laid down by the GeM against GeM Bid No.GEM/2020/B/859973
Dt.03.11.2020.
- 16.No interest shall be paid on the amount of earnest money and Performance Security held by RailTel at any stage.
- 17.Security Deposit/Performance Guarantee :
- i.The successful bidder shall submit the Performance Guarantee (PG) in the form of FDR or online transfer or irrevocable Bank Guarantee amounting to 10% of the contract value and should be valid for the period of 04 months beyond warranty periods. On the Expiry of the warranty period and the issue of the certificate of final acceptance of the entire system the performance bank guarantee will be refund or Bank Guarantee released to the contractor after adjustment of any dues payable by the contractor. No other format of PBG will be accepted to expect schedule PBG as Annexure -C.
- ii.The successful bidder shall have to submit a Performance Bank Guarantee (PBG) within 15 (Fifteen) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PBG beyond 15 (Fifteen) days and up to 30 days from the date of issue of PO/LOA may be given by the authority who is competent to sign the contract agreement.However a penal interest of 15% per annum shall be charged for the delay beyond 15 (fifteen) days i.e. from 16th day after the date of issue of PO/LOA. In case the contractor fails to submit the requisite PBG even after 30 days from the date of issue of LOA the contract shall be terminated duly forfeiting EMD and other dues if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work.
- iii.Separate advice of the BG will invariably be sent by the BG issuing Bank to RailTel’s Bank through SFMS and only after this the BG will become acceptable to RailTel. It is therefore in their own interest of the bidder to obtain RailTel’s Bank IFSC code its branch and address and advise these particulars to the BG issuing Bank and request them to send advice of BG through SFMS to the RailTel’s Bank. Note:(i)Any performance security up to a value of Rs. 5 Lakhs is to be submitted through online transfer only. In case of submission of Security Performance in form of FDR then lien should be created in favor of “RailTel Corporation of India Ltd”.
2. Technical Specifications :
1. Equipment & Module should be:
- i. With 3 years warranty. The product should not be declared EOL or EoS by OEM for next 8 Years.
- ii.Equipped with necessary hardware/software to comply all above required / support features.
- iii.Back to Back warranty with OEM for both Hardware and Software. The certificates/Undertaking for the same will have to be submitted along with bid from the OEM.
- iv.OEM should have its Service Centre at min 04 locations in major cities in India. Service center details to be shared along with address and contact no. and person.
- 2.SOR wise details are as follows : SOR-SOR-1 Item Description-Wireless Access Point with cloud/ Appliance based Wireless Controller Unit-Nos.Qty.-50
3. Note:
- (i)RailTel is having Wireless controller(WLC) of Cisco Model AIR-CT8540-K9 Software Version 8.6.101.0(Hardware based) & Model AIR-CT8540-K9 Software Version 8.8.130.0

- (Hardware based) Ruckus Vsz-High Scale Software Version: 5.1.1.0.598 (Software based & cloud based) and Aruba make Model: Aruba-7240XM Software Version: 6.5.4.8 (Hardware based). Bidders who are quoting for Access Point compatible with these OEM Wireless Controllers need not supply wireless controllers. Only 50 No. of licenses are to be supplied along with APs as per schedule.
- (ii) Bidders who are quoting Access Points not compatible with the above Wireless Controller should supply Wireless controller (WLC) along with 50 licenses compatible with APs quoted by them as per schedule without any cost to RailTel.
4. Annexure - A Access Point: Technical specification Hardware Parameters- Access Points proposed must include radios for both 2.4 GHz and 5 GHz. Must have a robust design for durability without visible vents. Must include dual band antennas to support both the 2.4GHz and 5GHz operations simultaneously. Proposed access point shall support MDO(Mobile Data offload Mounting kit should be standard which shall be used for mounting access point Must support operating humidity of 10 to 90% (noncondensing).
 5. wireless Standard Parameters- Must support 2X2 multiple-input multiple-output (MIMO) with TWO spatial streams Must support simultaneous 802.11n on both the 2.4 GHz and 5 GHz radios and must support 802.11ac Wave 2 on 5Ghz. Must support data rates unto 800 Mbps on 5Ghz radio and 140mbps on 2.4Ghz radio. Must support 40 MHz and 80 MHz wide channels in 5 GHz. Antenna Gain of Access Points must be +2dBm or better. Must support following minimum transmit power for both 2.4Ghz and 5Ghz radios.
 - (i) 2.4-Ghz band : +21dBm
 - (ii) 5.0-Ghz band: +24dBm. AP should support VLAN trunking (802.1q) and VLAN based SSID for user traffic.
 6. RF Parameters - The Wireless AP should have the technology to improve downlink performance. The AP shall be able to load-balance between 2.4Ghz and 5Ghz band. Must have -90dB to -100dB or better Receiver Sensitivity. Must incorporate radio resource management for power channel coverage hole detection and performance optimization. Should support configurable carrier sense threshold. Mesh Parameters- The Wireless Backhaul shall operate in 5Ghz. Support Encrypted and authenticated connectivity between all backhaul components. Access point shall have wired uplink interfaces i.e. 1X10/100/1000BASE-T Ethernet. Roaming Parameters- Must support Proactive Key Caching and/or other methods for Fast Secure Roaming. Security Parameters- Must support Management Frame Protection. Should support locally-significant certificates on the APs using a Public Key Infrastructure (PKI) or preinstalled certs on AP for authentication. Provision of Wireless IPS to filter malicious traffic.
 7. Encryption Parameters- Access Points must support a distributed encryption/decryption model. Access Points must support hardware or software based encryption. Monitoring Parameters- Must support the ability to serve clients or monitor the RF environment. AP model proposed must be able to be both a client-serving AP and Parallel monitor- Intrusion Prevention services. Flexibility Parameters- Should support mesh capabilities for temporary connectivity in areas with no Ethernet cabling. Should support QoS for voice over wireless. Must support Controller-based and standalone(autonomous) deployments. Must support 16 WLANs per AP for SSID deployment flexibility.
 8. Operational Parameters- Must support telnet or SSH or console login to APs directly for troubleshooting flexibility. Must support automatic detection of dropped connection to controller. Must support automatic failover to secondary controller upon detecting lost connection to controller. Must support DHCP Option 82 defined in RFC 3046 including support for Sub-option 01 (Circuit-Id) and Sub-option 02 (Remote Id) fields. With Controller APs (from a data-plane perspective) must support:- Ethernet over GRE IPv6 tunnel - Automatic detection of failed tunnel termination with configurable connection retry and timeout. - Automatic failover to secondary tunnel termination address. Support for basic AP monitoring statistics for each radio: Bytes Sent Bytes Received Packets Sent Packets

- Received Radio Channel Utilization Noise. Must support data-plane split tunneling in which ACLs may be configured to enable a range of destination net blocks and/or IPs to bypass the data-plane
9. tunnel and be bridged on the wired interface. AP should have capability to split tunnel for both IPv4 and IPv6 tunnel to segregate the management and data traffic. AP should have capability to split tunnel for specific destination IP/Subnet (For implementing policy based Caching solutions) using local NAT and forward user traffic. The AP shall support 200 concurrent Clients per AP. APs shall support SNMP V1 Or higher (V2/V3). Power Parameters- Must support Power over Ethernet/PoE+/UPoE/Power Injector/AC/DC. Quality of Service Parameters- shall have the support of 802.11e and WMM. Should be Wi-Fi Alliance certified and WPC Approved and ETA Certified. Must support QoS to prioritize video voice and Data traffic.
 10. Environmental and Electrical Specifications- Must support QoS and Video Call Admission Control capabilities. Access Point shall support powering from POE/PoE+/UPoE /Power Injector/AC/DC. Access point shall support pole wall and roof mounting options. Geographic orientation flexibility – tilt angle for pole wall and roof mounting units. The equipment shall support up to 100 MPH sustained winds & 140 MPH wind gusts. The Access point shall be IP67 certified. The Access point shall be rated for operation over an ambient temperature range of 0C to +55 C. Should Support Surge Protection on Ethernet Ports to meet the requirement at High Voltage Transmission Line running across the Railway Platform. If any OEM/Bidder can't provide inbuilt surge protection in AP external surge protection must be proposed. Surge protection of ± 2 kV on copper Ethernet ports.
 11. Annexure - B Specification of Cloud/Appliance based Wireless Controller The below mentioned parameters are minimum specifications of the controller. Bidders has to propose Cloud/Appliance based Wireless Controller to meet the requirement as per the tender without any cost implication to RailTel. Hardware and Standards Parameters- Must be compliant with IEEE CAPWAP or equivalent for controller-based WLANs. Controller should support 2U form factor and multiple stackable controllers must be proposed from Day One from single chassis of minimum 2000 Access Points. Proposed controller should support 1+1 or N+1 redundancy from the day one. The solution should be scalable to support 20000 or more APs. Note: - Access Point Licensees on wireless controllers should be given as per SOR/PO/LOA (Access point total Qty) + 20% extra. Controller must have at least 4 x 10Gbps of uplink interfaces. Controller shall support 10000 concurrent sessions from a single chassis.
 12. WLAN controller shall support Mobile data offload as a feature or as a solution. Compatibility- Deleted High Availability Parameters- Must support 1+1 or N+1 redundancy models. Must have feature for stateful recovery without re-authentication of the client in the event of LAN and WLAN infrastructure disruption to deliver a non-stop client session. Must support internal 230 VAC redundant power supplies. RF Management Parameters- Must support an ability to dynamically adjust channel and power settings based on the RF environment. Radio coverage algorithm must allow adjacent APs to operate on different channels in order to maximize available bandwidth and avoid interference. Must have Automatic 802.11 interference detection identification and mitigation. Must support coverage whole detection and correction. Must support RF Management with 20/40/80 MHz channels with 802.11a/b/g/n/ac.
 13. IPv6 features- WLC should support L2 and L3 roaming of IPv6 clients. WLC should support Guest-access functionality for IPv6 clients. Performance Parameters- Controller performance must remain the same if encryption is on or off for wireless SSIDs except the throughput processing of the controller. Security Parameters- Should adhere to the strictest level of security standards including 802.11i Wi-Fi Protected Access 2 (WPA2) WPA 802.1X with multiple Extensible Authentication Protocol (EAP) types including Protected EAP (PEAP) EAP with Transport Layer Security (EAP- TLS) EAP with Tunnelled TLS (EAP-

- TTLS).Should support Management frame protection for the authentication of 802.11 management frames by the wireless network infrastructure. Controller should have rogue AP detection and automatic containment feature Controller should be able to detect attacks like Broadcast deauthentication NULL probe from day one for all access points.
- 14.Controller should have profiling of devices based on protocols like HTTP/DNS DHCP and more to identify the end devices on the network. Guest Wireless Parameters- Must support internal and external web authentication. Functionality Parameters- Must be able to set a maximum per-user bandwidth limit on a per- SSID basis.Must support user load balancing across Access Points.Controller must provide Mesh capability for Mesh supported AP. Monitoring Parameters- Deleted Roaming Parameters- Solution proposed must support clients roaming across at least 500 Aps.
 - 15.Operational Parameters- Solution Must support AP over-the-air packet capture for export to a tool such as Wire shark.Should be able to classify and identify different types of interference.Should provide a snapshot of air quality in terms of the performance and impact of interference on the wireless network identifying the problem areas.Should provide real-time charts showing interferers per access point on a per-radio per-channel basis.Should support encrypted mechanism to securely upload/download software images to and from wireless controllers.Must support Ethernet over GRE IPv4 tunnel to northbound gateway.Must support Ethernet over GRE IPv6 tunnel to northbound gateway.Must support automatic detection of failed tunnel termination with configurable connection retry and timeout.Must support automatic failover to secondary tunnel termination address. Must support controller-based configuration of Ethernet over GRE tunnel termination.Must be wifi passpoint 2 complaint.
 - 16.System shall support various modes of operations like Tunnel Mode and local Breakout on the Same AP.Must support configuration of data-plane split tunneling by enabling specific destination IP addresses and net blocks to bypass the data- plane tunnel and be bridged on the wired interface.shall support API's for NB and SNMP Integration with CNMS.System shall support Reporting functionality with or without external server.Should support following Information through SNMP
 - i) Interface utilization.
 - ii)Interface errors and discards.
 - iii)Connected APs (count) Connected Clients (count)Access Point Failed Assoc. Count
 - iv)Connected Stations (count) Admin Status (on/off) Broadcast SSID (on/off).
 - v)CPU and Memory statistics.
 - vi)AP name AP IP address AP Model AP uptime AP admin status operational status POE Status Ethernet speed number of clients and AP mode.
 - vii)Should also support snmp traps on failure conditions.
 - 17.Reports type like number of clients system resource utilization Transmit and Receive bytes on AP/radio or set of AP or a particular site should be generated. The controller should have a troubleshooting tool to detect user experience issues.It should display health and traffic data for each AP to evaluate site performance. QOS Parameters- Must support 802.11e and WMM. Shall able to prioritize all traffic such as (Data voice and video). Controller shall integrate with existing firewall.Should have rate limiting per user and per SSID basis for encrypted tunnel mode.To deliver optimal bandwidth usage reliable multicast must use single session between AP and Wireless Controller.
 - 18.Annexure - C :Guarantee Bond for Performance Guarantee (On Stamp Paper of requisite value)(To be used by approved Scheduled Banks)
 - 1.In consideration of the at RailTel Corporation of India Limited Registered office at Plate-A 6th Floor Office Block Tower-2 East Kidwai Nagar New Delhi — 110023 and Eastern Regional office at 3rd & 16th Floor Chatterjee International Centre 33A Jawaharlal Nehru Road Kolkata – 700071 (Herein after called RailTel) having agreed to exempt
-(Hereinafter called “the said

Contractor(s)”) from the demand under the terms and conditions of an Agreement No. dated made between and for (hereinafter called “the said Agreement”) of Performance Guarantee/Security Deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement or production of a Bank Guarantee for Rs. (Rs. only). We(indicate the name of the Bank) hereinafter referred to as “ the Bank”) at the request of Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs. against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.

2. We Bank and our local branch at Kolkata (indicate detail address of local Kolkata Branch with code no.)do hereby undertake to pay the amounts due and payable under this Guarantee without any demur merely on demand from the RailTel stating that the amount is claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement.

Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However our liability under this guarantee shall be restricted to an amount not exceeding Rs.

3. Webank undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.

4. We Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the(1) We shall be discharged from all liability under this Guarantee thereafter.

5. We (indicate the name of Bank) Further agree with the RailTel that the RailTel shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the Agreement or to extend time of to postpone for any time or from time to time any of the powers exercisable by the RailTel against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation or extension to the said Contractor(s) or for any forbearance act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have affect of so relieving us.

This Guarantee will not be discharged due to the change in the Constitution of the Bank or the Contractor(s) Supplier(s).

6. We the Bank further agree that this guarantee shall be invokable at our place of business at/Kolkata (indicate detailed address of local Kolkata Branch with code no.).The branch at Kolkata is being advised accordingly.

(indicate the name of Bank) lastly undertaken not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing. Dated the day of 2020 for (Indicate the name of the Bank)Witness

1.Signature..... Name..... 2.Signature Name.....