

Information to Bidder for the procurement of Hardware Security Module (HSM)

Ref: GeM Bid No. GEM/2018/B/50373 dt. 05.03.2018

1. All HSM should be quoted as per Technical specifications given in Annexure-I.
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.
4. Equipment offered shall have complete data sheets and detailed description on OEM web sites.
5. Bidder shall submit the detailed BOM of the equipment's offered duly verified and certified by the respective OEM. The detailed BOM shall indicate quantities and price break up of various modules/sub modules/cards/Licenses required for each equipment's.
6. GSTIN ID of vendor should be provided from where goods will be supplied.
7. Delivery period: 30 days from the date of PO.
8. Inspection: Pre-shipment/pre-dispatch inspection shall be carried out at manufacturer's/supplier's works by RailTel's authorized representative.
9. Consignee: Sh. Rajesh Pokhriyal (Mob: 9717644483), Manager/DC, RailTel Corporation of India Ltd., Plot No. 143, Sector-44, Gurgaon.
10. **Earnest Money Deposit (EMD)/ Bid Security: Rs 92,500/- (Rs. Ninety two thousand five hundred only)** in the form of Pay Order/Demand Draft drawn in favor of RailTel Corporation of India Ltd. payable at New Delhi.
11. **For NSIC registered Firm:**
  - A) For small scale units registered with NSIC under single point registration Scheme and participating in this tender enquiry, following exemptions are available: -

They are exempted from depositing Earnest money.  
These exemptions are applicable provided units are registered with NSIC for tendered item and registration is current and valid. Firms claiming these exemptions are required to submit along with their offer, copy of their current and valid NSIC registration certificate for the tendered item, otherwise their offer would not be considered.
  - B) No exemption is, however, applicable to these units from payment of security deposit/ Performance Bank Guarantee.
  - C) Any Other guideline issued by Govt. for MSME time to time will be applicable.
12. **Security Deposit/Performance Bank Guarantee:**

The successful tenderer shall submit security deposit in the form of DD/FDR or irrevocable Bank Guarantee from any scheduled bank for due fulfillment of contract as per the details given below:



- i. Security Deposit/Performance Bank Guarantee @ 10% of total value of Purchase Order is required to be submitted within 15 days of issue of Purchase Order with validity of 3 months beyond warranty period.
- ii. The security deposit/PBG shall be submitted to Corporate Office Gurgaon.

The security deposit/Performance Bank Guarantee shall be released after successful completion of Contract obligations under the contract, duly adjusting any dues recoverable from the successful tenderer. Payment of Security Deposit in the form of Pay Order/Demand Draft should be made in favor of "RailTel Corporation of India Ltd" payable at New Delhi only.

### 13. Eligibility Criteria for OEM:

- a. Each OEM can authorize up to a maximum of three (3) authorized partners to bid the tender.
- b. 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 06 months as on 25.03.18 in India or Abroad. The certificates from the actual users will have to be submitted offline.
- c. The OEM should have supplied at least 35% of the tendered quantity of the equipment offered or equipment of the same series/family to Government/PSUs/Telecom Service Providers. OEM can submit self-certificate with proper contact detail of clients (Firm Name, Contact person, Designation, Telephone Number, Fax, Official mail id etc.). The same should be issued from authorized signatory.
- d. The OEM should have proven facilities for Engineering, manufacture, assembly, integration and testing of Switches and basic facilities with respect to space, Engineering, Personnel, Test equipment, Manufacture, Training, Logistic Supports for at least past three years in the country from where the proposed equipment are planned to be supplied. The certificates/Undertaking for the same will have to be submitted offline.

### 14. Eligibility Criteria for Bidder:

- a. The tenderer should have executed single order of supply/ provision of HSM/Router /Switches/Wi-Fi/AP System equipment's costing not less than 35% of tendered value during last proceeding 3 financial years (i.e. current year and three previous financial years) as on 25.03.18. Supply of this value against a single rate contract, during above period, will also qualify for this purpose. The bidder shall also furnish Supply/ work completion certificate issued by customer/s for the Purchase Orders/ Work Orders.
- b. The bidder should have annual turnover of minimum 150% of tendered quantity or above during the last 3 financial years (i.e. current year and three previous financial years). The bidder should provide Audited Balance Sheets and annual reports as documentary evidence or other such documents so as to establish the financial soundness of their company for the preceding three financial years.
- c. The Bidder should have authorization specific to this tender from respective OEM.

- d. The Bidder or their promoters having equity stake or operating partnership in bidder, should not be holding valid License for Telecom service provider/ISP/NLD, Services License of Government of India for Telecom Operation.

**15. WARRANTY:**

- 15.1 The materials are to be warranted for **36 months** from date of delivery to the consignee. The tenderer shall warrant that stores to be supplied shall be new and free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards of materials of the type ordered and shall perform in full conformity with the specifications and drawings. The supplier shall be responsible for any defects that may develop under the conditions provided by the contract and under proper use, arising from faulty materials, design or workmanship such as corrosion, inadequate quantity of material to meet equipment requirements, inadequate contact protection, deficiencies in design and/ or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect the stores are faulty.
- 15.2 If it becomes necessary for the contractor to replace or renew any defective portion/portions of the supplies under this clause, the provisions of the clause shall apply to the portion/portions of the equipment so replaced or renewed or until the end of the above mentioned period of twelve months, whichever may be later, If any defect is not remedied within a reasonable time, the Purchaser may proceed to do the work at the contractor's risk and expenses, but without prejudice to any other rights which the Purchaser may have against the contractor in respect of such defects.
- 15.3 Replacement under warranty clause shall be made by the contractor free of all charges at site including freight, insurance and other incidental charges.  
  
During the warranty period, the contractor shall remain responsible to arrange replacement within 15 days and for setting right at his own cost any equipment installed by him which is of defective manufacture or design or becomes unworkable due to any cause whatsoever. The decision of the RailTel's representative in this regard to direct the contractor to attend to any damage or defect in work shall be final and binding on the Contractor.
- 15.4 In case of hardware failure the replacement must be given in next business day If the Bidder fail to replace as per below mentioned duration, the following penalties will be imposed. It will be calculated on quarterly (3 month) basis and maximum penalties will be 10 % of the cost of Equipment per year.
- 15.5 Replacement Services  
During warranty and AMC period, if the Bidder fails to replace /Equipment card/Part in next business day, the following penalties will be imposed.

Equipment	Duration of repair	Deduction/Penalties
All Modules and accessories	More than 1 days and up to 7 days	2% of the cost of affected part/module

All Modules and accessories	More than 7 days and up to 15 days	10% of the cost of affected part/module
All Modules and accessories	More than 16 days and up to 30 days	25% of the cost of affected part/module
All Modules and accessories	More than 30 days	100% of the cost of affected part/module

**Note:**

In event of that bidder fails on both service SLA and replacement services the maximum aggregate penalties would be limited to equipment cost. OEM should provide facility to RailTel for direct fault case open on TAC Support in case emergency.

**16. Delivery Period**

16.1 The supplier will have to supply the material within 30 days of issue of confirmed LOA/PO.

**17. Long Term Maintenance Support:**

- o Tenderer (OEM) shall provide maintenance support after successful completion of the warranty obligations for a minimum period of 5 years. The long term maintenance support shall be comprehensive and include all hardware and software of equipment supplied against this contract. RailTel should be extended the benefits of periodical software patches/updates made by OEM on the system from time to time for equipment security/performance without any additional cost to RailTel.
- o Tenderer/OEM(through its Indian subsidiary), shall be paid @ 3.5% of supply cost per annum towards Long Term Maintenance Support after completion of warranty period, to undertake repairs/replacements of all type of module/ card/assembly/ subassembly and update/upgrade of software released during this period and /or which may fail in the network after the warranty. Only incremental cost in % over and above this, if perceived by the OEM and Tenderer, may be indicated in Schedule of Requirement and shall be added to the equipment cost towards evaluation of tender. If however the tenderer feels that his AMC Cost is less than 3.5% per annum, he should give suitable discount in equipment pricing. For AMC he will be paid @ 3.5% per annum only. If the Tenderer quotes a higher base rate for AMC, he will be paid at his quoted rate per annum and four year differential cost shall be added to offered cost for evaluation. AMC would have to be valid for minimum period of 5 years after the warranty.
- o In case tenderer quotes AMC rates lower than 3.5%, no advantage will be given to him for evaluation purposes. In case the tenderer wins the contract his cost will be reduced by differential (w.r.t. 3.5%) AMC rates & he will be paid accordingly. AMC charges to him, however be paid only @ 3.5% per annum.
- o Separate agreement for AMC (Long term Maintenance Support) before expiry of warranty period shall be entered with OEM/the authorized partner of OEM by RailTel. A fresh Bank Guarantee valid for four years for 10% of the Long Term



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Maintenance Support cost of four years quoted by the tenderer, shall be required to be submitted by bidder for due fulfillment of long term maintenance support obligation.

- Quarterly payment for AMC Charges would be made by RailTel after successful completion of AMC Services of that quarter and on the certificate furnished by concerned RailTel representative of the CNOC.

**18. Offline Submissions:**

The bidder is required to submit the following documents offline to RailTel Corporation of India Ltd, Institutional Area Plot 143, Sector 44, Gurgaon before **15:00 Hrs of 26.03.2018** in a Sealed Envelope. The envelope shall bear 'DO NOT OPEN BEFORE' (due date & time as per GeM Portal). The offline documents shall be opened at **15:30 Hrs of 26.03.2018**. In case the bidding is completed in the odd hours then the documents will be opened on next working day at 11:00 hours. Bids without these off line submission of documents will be summarily rejected.

- i. EMD
- ii. MAF/ OEM Authorization Letter
- iii. BOQ of offered equipment.
- iv. Data Sheet of offered equipment.
- v. Financial and technical Eligibility Criteria documents.
- vi. Technical Compliance of Specification as per Annex-I.

**Note: An agreement will be signed with the successful bidder for execution of the order.**

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### Technical Specifications of Hardware Security Module (HSM)

Note 1: It may kindly be noted that 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.

Note 2: Bidder should submit the vetted BOM from their respective OEMs.

Note 3: The Bidder should have OEM authorization specific for this tender.

Sr. No	Requirement	Requirement Particulars
1	Supported Operating Systems	Windows, Linux, Solaris, Vmware & HP-UX
2	Host connectivity	TCP/IP Network based appliance-Gigabit Ethernet connectivity
3	Safety, Security and environmental compliance	Should comply to standards like FIPS,ROHS,FCC
4	Hash/message digest	Minimum SHA-1,SHA-2 (224,256 and 384)
5	Cryptography symmetric	Public Key Algorithm RSA encrypt/decrypt, RSA sign/verify, ECC (Elliptic Curve cryptography)
6	Cryptography Asymmetric	Cryptographic algorithm : Diffie-Hellman, RSA (2048,4096 bit), DSA
7	Cryptography ECC	Full suite B implementation with fully licensed Elliptic Curve Cryptography (ECC),ECDSA and ECDH
8	Cryptographic module security	Compliance to FIPS 140-2 level 3
9	Application Interfaces(APIs)	Published API for various above functionalities for integrating with the Application software, Should be compatible PKCS#11, CAPI, CNG, JCA/JCE
10	Key Generation and Protection	Ability to generate RSA keys(2048 and 4096) on board on demand and shall be secured by high security module in accordance with FIPS 140-2 LEVEL 3 recommendations for Cryptographic Modules Validation. Keys should be stored on the HSM devices only.
11	Speed	Signing speed-RSA 2048 Bit -at least 300 Signatures/second Signing Speed -ECC 256 bit -at least 1000 Signatures/second
12	Keys	No restriction on the number of keys to be protected by HSM
13	Access control	Authenticated multi-level access control Roles-Support for role based access control (minimum 2 roles).

14	<b>Load Balancing &amp; Scalability</b>	Must be scalable to support more transactions, with horizontal scalability that is, adding more devices for load sharing. Multiple HSMs to be supportable for DR, key backup, key update, and key process, load balancing and failover.
15	<b>Key backup and restoration</b>	With complete backup solution to securely store the keys at DC, at DR and restore them in case of necessity
16	<b>Key Processes</b>	On-Board key generation and digital signing
17	<b>Partitions</b>	Logical/cryptographic separation of application keys. Should support at least 1500 keys inside the HSM.
18	<b>Power source</b>	Dual hot-swap power supplies, field serviceable
19	<b>Monitoring</b>	Standard mechanism for monitoring the device
20	<b>CLI/GUI</b>	Command line interface (CLI) /graphical user interluce (GUI)
21	<b>Hardware &amp; Licenses</b>	Supply should include all the necessary hardware and licenses required for meeting the above specifications
22	<b>Latency</b>	Less than 500 milli second (ms)
23	<b>Support</b>	24*7 remote supports. Vendor should provide required training and support for integration of HSM with RailTel's hardware and software.

  
(Jagdeep Singh)  
GGM/Operations

