Information to Bidder for the "The Procurement of Access Switches for RailWire through GeM"

Ref: GeM Bid Number: GEM/2018/B/11254 dated 10.05.2018

- 1. All Equipments 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.
- Equipment offered shall have complete data sheets.
- 5. Bidder shall submit the detailed BOM of the equipment's offered duly verified and certified by the respective OEM. The BOM shall be as per tender condition.
- **6.** GSTIN ID of vendor should be provided from where goods will be supplied.
- 7. Delivery period: 60 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: As per distribution given at para-2 of Annex-I.
- 10. Earnest Money Deposit (EMD)/ Bid Security: Rs. 5,00,000/- (Rs. Five Lakhs 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:

10.05 Page 1 of 15

- 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 as per format (Annex-III).
- 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 date of opening of tender 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 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) from the date of opening of tender. 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.

15. WARRANTY:

- 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 36 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 in Next Business Day (NBD) 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.

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 | More than 30 days | 100% of the cost of affected |
|-----|-----------|-----|-------------------|------------------------------|
| | accessori | es | | 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 60 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 Five years and four months for 10% of the Long Term Maintenance Support cost of five 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.

Note: The acceptance of the above clause is mandatory and specific acceptance from OEM is required to be enclosed as per Annexure-1I. Any deviation / non acceptance will lead to rejection of the bid summarily.

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 14:30 Hrs of 23.05.2018 in a Sealed Envelope. The envelope shall bear 'DO NOT OPEN BEFORE' (due date & time). The offline documents shall be opened at 15:00 Hrs of 23.05.2018. 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: 1) The acceptance of the all the clause mentioned in the information to the bidders document is mandatory. Any deviation / non-acceptance will lead to rejection of the bid summarily.

- 2) Performa for long term support at Annexure II
- 3) Information to Bidder viz. corrigendum /addendum/ amendments etc. for this bid shall be posted on www.railtelindia.com only.

N

Technical Specifications

Note:-

- 1. All Equipment should be:
 - i. With 3 years warranty & 5 years AMC. 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 respective OEMs for both Hardware and Software. The certificates/Undertaking for the same will have to be submitted along with bid from respective 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.
 - v. UL,CE and FCC Certification is not required for PMA. However they have to produce certificate from standard lab approved/ authorized by Govt. of India that their product are equivalent to UL,CE and FCC and meets all standard and specification of UL,CE and FCC.

2. Distribution of materials to consignee are as:

| Regions | SR/Secunderabad | WR/Mumbai | NR/Delhi | ER/Kolkata |
|-------------------|-----------------|-----------|----------|------------|
| Quantity of SOR 1 | 250 | 200 | 200 | 150 |
| Quantity of SOR 2 | 250 | 200 | 200 | 150 |
| Quantity of SOR 3 | 160 | . 135 | 135 | 110 |
| Quantity of SOR 4 | 175 | 135 | 135 | 95 |
| Quantity of SOR 5 | 170 | 135 | 135 | 100 |
| Quantity of SOR 6 | 919 | 735 | 735 | 551 |
| Quantity of SOR 7 | 919 | 735 | 735 | 551 |
| Quantity of SOR 8 | 919 | 735 | 735 | 551 |
| Quantity of SOR 9 | 500 | 400 | 400 | 300 |

1) Access Switch (24+4 Ports) (Type-B):

| SN | Description | |
|----|---|--|
| 1 | Should have 24 ports 10/100/1000 Base-Tx | |
| 2 | Should have support for 4 ports SFP Based Gigabit ports. | |
| 3 | Should have at least 48Gbps switching fabric. | |
| 4 | Packet forwarding rates 30 million PPS | |
| 5 | Should support at least 16Kentries in the MAC table. | |
| 6 | Should Support 255 minimum VLANs. | |
| 7 | Should have AC and DC power supply arrangement as given below in chassis without any external adaptors: | |
| | i) AC Power Supply 100 to 240 V AC with 50 to 60 Hz | |
| | ii) -48V DC supply | |



| | Railtel will specify the requirement of power supply arrangement AC or DC at the time of sub purchase order. In case not specified, tenderer should seek clarification on the power supply | | |
|-----|--|--|--|
| | arrangement. | | |
| 8 | Should support Dual Images. | | |
| 9 | Should support Optical Transceiver Digital Diagnostic Monitoring for All SFP ports of 1G. | | |
| 10 | Should support port mirroring and jumbo frame 9k. | | |
| | Should support following for min. 64 Groups: | | |
| 11 | i) IGMP Snooping, | | |
| 11 | ii) IGMP v1/v2/v3 awareness Snooping, | | |
| | iii) IGMP Snooping Queried. | | |
| 12 | Should support spanning-tree root guard, Port Fast and BPDU Guard/Filter or similar functionalities. | | |
| 13 | Should support following security features viz.: | | |
| | i) Web Management (HTTPS), | | |
| | ii) Broadcast/Multicast/Unicast Storm Control, | | |
| | iii) DoS Attack Prevention | | |
| 14 | Switch should support following SNMP traps or syslog | | |
| | i) Interface UP & Down | | |
| | ii) Optical power SFP threshold alarms | | |
| | iii) STP Topology Changes and New root bridge | | |
| | iv) LLDP table changes | | |
| | v) Threshold alarms for Temperature. | | |
| | vi) Ethernet OAM SNMP alarms. | | |
| 15 | Switch should comply to following Temperature performance parameters : | | |
| | i) Operating Temperature - min -0 to 50 °C (23 to 122 °F) | | |
| | ii) Storage Temperature - min -0 to 70 °C (-40 to 158 °F) | | |
| 16 | It shall support MAC address notification to allow administrators to be notified of users added to or removed from the network. | | |
| 17 | The switch shall be designed for continuous operations. | | |
| 18 | IPv6/v4-L3 and IPv6-Multicast functionalities/features for Switches are desired but not mandatory. | | |
| 19 | Safety Requirement :- | | |
| | Switch should have safety compliance of UL. | | |
| 20 | Electromagnetic Compatibility (EMC) Requirements:- | | |
| | Switch should have EMC compliance of CE and FCC. | | |
| 21 | The LAN switch shall support a console port or auxiliary/Ethernet port for the purpose of local and remote configuration and diagnostics. | | |
| 22 | The LAN switch shall support built in power diagnostics system to detect hardware failures. | | |
| 23 | IPv6 feature should be ready from day 1. | | |
| 24 | Qualitative Requirements:- | | |
| L., | | | |



| | i. The equipment shall be manufactured in accordance with the international standards ISO 9000:2008 or later for which the manufacturer shall be duly accredited. A quality plan describing the quality assurance system followed by the manufacturer shall be required to be submitted |
|----|--|
| | ii. The MTBF (Mean Time Between Failure) and MTTR (Mean Time To Repair) predicted and observed values shall be furnished along with calculations by the manufacturer. |
| 25 | Switch should support following Metro Ethernet Features: |
| | i. Q in Q, Double VLAN (Q-in-Q), Port-based Q-in-Q and VLAN Translation |
| | ii. IEEE 802.1ag Ethernet OAM: Connectivity Fault Management |
| | iii. Ethernet OAM compliant with IEEE 802.3ah/Y.1731 |
| 0 | iv. ITU-T G.8032 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies. |
| | v. L2 Protocol Tunneling. |
| | vi. Loopback Detection |
| | The operating system of the Switches category/series/family should be MEF-9/14 or CE (Carrier Ethernet) Certified/compliant. |
| | Note: 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. |

2) Access Switch (24+4 Ports) (Type-C):

| SN | Description | |
|----|--|--|
| 1 | Should have 24 ports SFP Based Gigabit ports. | |
| 2 | Should have support for 4 ports SFP+ Based Gigabit ports. | |
| 3 | Should have at least 120 Gbps switching fabric. | |
| 4 | Packet forwarding rates 90 million PPS | |
| 5 | Should support at least 16Kentries in the MAC table. | |
| 6 | Should Support 4096 minimum VLANs. | |
| 7 | Should have AC and DC power supply arrangement as given below in chassis without any external adaptors: | |
| | i) AC Power Supply 100 to 240 V AC with 50 to 60 Hz | |
| | ii) -48V DC supply | |
| | DC power supply should work as a redundant power supply to power-on the switch in case failure of AC power supply. | |
| 8 | Should support Dual Images. | |
| 9 | Should support Optical Transceiver Digital Diagnostic Monitoring for All SFP ports of 1G and 10G | |
| 10 | Should support port mirroring and jumbo frame. | |
| | Should support following for min. 64 Groups: | |
| | i) IGMP Snooping, | |
| 11 | ii) IGMP v1/v2/v3 awareness Snooping, | |
| | iii) IGMP Snooping Queried. | |

| 12 | Should support spanning-tree root guard, Port Fast and BPDU Guard/Filter or similar functionalities. |
|----|---|
| 13 | Should support following security features viz.: |
| | i) Web Management (HTTPS), |
| | ii) Broadcast/Multicast/Unicast Storm Control, |
| | iii) DoS Attack Prevention |
| 14 | Switch should support following SNMP traps or syslog |
| | i) Interface UP & Down |
| | ii) Optical power SFP threshold alarms |
| | iii) STP Topology Changes and New root bridge |
| | iv) LLDP table changes |
| | v) Threshold alarms for Temperature. |
| | vi) Ethernet OAM SNMP alarms. |
| 15 | Switch should comply to following Temperature performance parameters: |
| | i) Operating Temperature - min -0 to 50 °C (23 to 122 °F) |
| | ii) Storage Temperature - min -0 to 70 °C (-40 to 158 °F) |
| 16 | It shall support MAC address notification to allow administrators to be notified of users added to or removed from the network. |
| 17 | The switch shall be designed for continuous operations. |
| 18 | IPv6/v4-L3 and IPv6-Multicast functionalities/features for Switches are desired but not mandatory. |
| 19 | Safety Requirement :- |
| | Switch should have safety compliance of UL. |
| 20 | Electromagnetic Compatibility (EMC) Requirements:- |
| 20 | Switch should have EMC compliance of CE and FCC. |
| | The LAN switch shall support a console port or auxiliary/Ethernet port for the purpose of |
| 21 | local and remote configuration and diagnostics. |
| 22 | The LAN switch shall support built in power diagnostics system to detect hardware failures. |
| 23 | IPv6 feature should be ready from day 1. |
| 24 | Qualitative Requirements:- |
| | i. The equipment shall be manufactured in accordance with the international standards ISO 9000:2008 or later for which the manufacturer shall be duly accredited. A quality plan describing the quality assurance system followed by the manufacturer shall be required to be submitted |
| | ii. The MTBF (Mean Time Between Failure) and MTTR (Mean Time To Repair) predicted and observed values shall be furnished along with calculations by the manufacturer. |
| 25 | Switch should support following Metro Ethernet Features: |
| | i. Q in Q, Double VLAN (Q-in-Q), Port-based Q-in-Q and VLAN Translation |
| | ii. IEEE 802.1ag Ethernet OAM: Connectivity Fault Management |
| | iii. Ethernet OAM compliant with IEEE 802.3ah/Y.1731 |
| | |

| iv.ITU-T G.8032 Ethernet Ring Protection designed for loop protection and fast convergence times (sub 50 ms) in ring topologies. |
|--|
| v. L2 Protocol Tunneling. |
| vi. Loopback Detection |
| The operating system of the Switches category/series/family should be MEF-9/14 or CE (Carrier Ethernet) Certified/compliant. |

3) SFP 10G 60 KM (BIDI):

| SN | Description |
|----|--|
| 1 | Should be compatible with Multiple-OEM equipment's like Cisco, Juniper, |
| | D Link, Zyxel, Edge Core and Extreme etc. |
| 2 | Should support 80 km optical distance on single fiber |
| 3 | Should have LC type connector. |
| 4 | Should provide the cost in pair (BX U & D). |
| 5 | Should have 10 Gigabit Ethernet capacity on single mode fiber. |
| 6 | Should support DDMI feature. |
| 7 | OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid. |
| 8 | Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F) |
| 9 | Tx/Rx wavelength should be either in the range of 1300nm or 1500nm. |
| 10 | For Tx/Rx wavelength in the range of 1300nm power budget should be minimum 24 dbm. |
| 11 | For Tx/Rx wavelength in the range of 1500nm power budget should be minimum 20 dbm |
| 12 | Should have CE and FCC and UL regulatory compliances. |

4) SFP 10G 40 KM (BIDI):

| SN | Description |
|----|--|
| 1 | Should be compatible with Multiple-OEM equipment's like Cisco, Juniper, |
| | D Link, Zyxel, Edge Core and Extreme etc. |
| 2 | Should support 40 km optical distance on single fiber |
| 3 | Should have LC type connector. |
| 4 | Should provide the cost in pair (BX U & D). |
| 5 | Should have 10 Gigabit Ethernet capacity on single mode fiber. |
| 6 | Should support DDMI feature. |
| 7 | OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid. |
| 8 | Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F) |
| 9 | Should have CE and FCC and UL regulatory compliances. |

5) SFP 10G 10 KM (BIDI):

| SN | Description |
|----|--|
| 1 | Should be compatible with Multiple-OEM equipment's like Cisco, Juniper, |
| | D Link, Zyxel, Edge Core and Extreme etc. |
| 2 | Should support 10 km optical distance on single fiber |
| 3 | Should have LC type connector. |
| 4 | Should provide the cost in pair (BX U & D). |
| 5 | Should have 10 Gigabit Ethernet capacity on single mode fiber. |
| 6 | Should support DDMI feature. |
| 7 | OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid. |
| 8 | Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F) |
| 9 | Should have CE and FCC and UL regulatory compliances. |

6) SFP 1G 80 KM (BIDI):

| SN | Description |
|----|--|
| 1 | Should be compatible with Multiple-OEM equipment's like Cisco, Juniper, |
| | D Link, Zyxel, Edge Core and Extreme etc |
| 2 | Should support 80 km optical distance on single fiber |
| 3 | Should have LC type connector. |
| 4 | Should provide the cost in pair (BX U & D). |
| 5 | Should have 1 Gigabit Ethernet capacity on single mode fiber. |
| 6 | Should support DDMI feature. |
| 7 | OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid. |
| 8 | Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F) |
| 9 | Should have CE and FCC and UL regulatory compliances. |

7) SFP 1G 40 KM (BIDI):

| SN | Description |
|----|--|
| 1 | Should be compatible with Multiple-OEM equipment's like Cisco, Juniper, |
| | D Link, Zyxel, Edge Core and Extreme etc |
| 2 | Should support 40 km optical distance on single fiber |
| 3 | Should have LC type connector. |
| 4 | Should provide the cost in pair (BX U & D). |
| 5 | Should have 1 Gigabit Ethernet capacity on single mode fiber. |
| 6 | Should support DDMI feature. |
| 7 | OEM should be having valid ISO 9000 & ISO 14000 certification on the |
| | date of opening of bid. |
| 8 | Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 |
| | °F) |
| 9 | Should have CE and FCC and UL regulatory compliances. |

8) SFP 1G 10 KM (BIDI):

| SN | Description |
|----|--|
| 1 | Should be compatible with Multiple-OEM equipment's like Cisco, Juniper, |
| | D Link, Zyxel, Edge Core and Extreme etc |
| 2 | Should support 10 km optical distance on single fiber |
| 3 | Should have LC type connector. |
| 4 | Should provide the cost in Pair (BX U & D). |
| 5 | Should have 1 Gigabit Ethernet capacity on single mode fiber. |
| 6 | Should support DDMI feature. |
| 7 | OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid. |
| 8 | Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F) |
| 9 | Should have CE and FCC and UL regulatory compliances. |

9) SFP 1G Electrical:

| 1 | Should be compatible with Multiple-OEM equipment's like Cisco, Juniper, |
|----|--|
| | D Link, Zyxel, Edge Core and Extreme etc |
| 2 | Should be of electrical type RJ-45 Ethernet connector. |
| 4 | Should be fully hot pluggable. |
| 5 | Should support Digital Diagnostic Monitoring feature. |
| 6 | OEM should be having valid ISO 9000 & ISO 14000 certification on the date of opening of bid. |
| 7 | Operating temperature of the SFP should be minimum 0 to 65 °C (23 to 149 °F) |
| 8 | Should have Auto MDI/MDIX |
| 9 | Shall operate at 10/100/1000 Base-T. |
| 10 | Should have CE and FCC and UL regulatory compliances. |

(Jagdeep Singh)
Executive Director/Operations

8/5/

PROFORMA FOR THE LONG-TERM MAINTENANCE SUPPORT

(To be signed by the O.E.M.)

| To |
|--|
| The Director, |
| RailTel Corporation of India Limited |
| I / We hereby confirm and |
| accept that against RailTel Tender No, there is a |
| requirement of Long Term Maintenance Support as per Clause 17. We confirm that Long Term |
| Maintenance Support shall be met by us directly or through Authorized partner, as the case may |
| be based on contracts. I / We have gone through the requirement mentioned in the Tender |
| document and shall provide services for the offered supply items. |
| |
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| |
| (Signature of Firm's Authorized Officer) |
| Seal |
| to the filter with the order to be the second of the secon |
| Signature of witness: |
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Performa for Performance Bank Guarantee

PERFORMANCE BANK GURANTEE BOND (On Stamp Paper of Rs. One Hundred) (To be used by approved Scheduled Banks)

| | onsideration of the RailTel Corporation of India Limited, : Plot No.143, Sector-44, Gurugram- |
|----|---|
| 1. | (Herein after called RailTel) having agreed to exem |
| | Contractor(s)") from the demand, under the terms and conditions of an Agreement N dated made between the said Agreement of the said Contractor (s) of the terms and conditions contained in the said Agreement, or production of a Bank Guarantee for R (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 the said Agreement. |
| 2. | We, |
| 3. | We, |
| | 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 makir such payment. |
| | We, |



| We, | |
|--|----|
| (indicate the name of Bank) Further agree with the RailTel that the RailTel shall have the fullest | t |
| liberty without our consent and without affecting in any manner our obligations hereunder to var | ТУ |
| 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).

(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

2018

or(Indicate the name of the Bank)

Witness

- 1. Signature Name
- 2. Signature Name

(Jagdeep Singh)
Executive Director/Operations
For & on behalf of RailTel Corporation of India Ltd.

10.0518

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