

RailTel Corporation of India Ltd

(A Mini Ratna PSU under Ministry of Railways)



NOTICE INVITING EXPRESSION OF INTEREST (EOI)

EOI No. : RCIL/EoI/CO/BD/2024/04

Dated 18th Apr 2024

Expression of Interest (EOI) for "***Selection of Partner for Providing Services for Implementation and O&M of end-to-end cloud services for hosting Smart Meter solution at Chennai DC for a customer***"

Issued by:

RailTel Corporation of India Ltd

(A Mini-Ratna PSU under Ministry of Railways)

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Disclaimer

RailTel Corporation of India Ltd. (herein after called the RailTel) has prepared this Expression of Interest (EOI) document solely to assist prospective bidders in making their decision of whether or not to bid.

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SCHEDULE OF EVENTS

| | | |
|---|---|---|
| 1 | EOI Document Availability | EOI document can be downloaded from website http://www.railtelindia.com from 18-Apr-2024 onwards till last date of submission of the EOI. |
| 4 | Last date of submission of response to EOI Response | 1700 Hrs on 22-Apr-2024 |
| 5 | Date & Time of Opening of EOI Response | 1730 Hrs on 22-Apr-2024 |
| 6 | Mode of Submission of EOI Response | <p>"Single stage" tender with physical submission of sealed envelope containing both Technical Bid and Commercial Bid. The physical submission is to be done at the address as mentioned in this EOI document.</p> <p>All interested partners may note that this is a 'Single Packet Bid Submission'. EOI response submitted through any other mode will not be accepted.</p> |

Note : RailTel reserves the right to change the above dates at its discretion.

Contact Details for this EOI :

Level 01 : Sh. Manish / Chief Manager (BD) / manish[at]railtelindia[dot]com

Level 02 : Sh. Kamal Kaushiak / Jt. General Manager (EB) / kamal.kaushiak[at]railtelindia[dot]com

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NOTE:

- I. All firms are required to submit hard copy of their EOI submissions, duly signed by Authorized Signatories having Power of Attorney with Company seal and stamp.
- II. The EOI response is invited from empaneled partners of RailTel. Only RailTel empaneled partners are eligible for participation in EOI process.

1. About RailTel

RailTel Corporation of India Ltd (RailTel) is one of the largest neutral telecom infrastructure providers in the country owning a Pan-India optic fibre network on exclusive Right of Way (ROW) along Railway track. The OFC network presently reaches to over 4500 towns & cities of the country including several rural areas. With its Pan India high-capacity network, RailTel is working towards creating a knowledge society at various fronts. The portfolio of services provided by RailTel includes Data Centre & DR services, Tele-presence as a service, NLD services, IP-1 services, Internet and Broadband services on a pan-India basis.

Equipped with an ISO 9001, 20000-1:2011 & 27000 certification, RailTel offers a wide gamut of managed telecom services to Indian Telecom market including Managed lease lines, Tower colocation, MPLS based IP-VPN, Internet, Data Centre services, NGN based voice carriage services to Telecom Operators, Dark fibre leasing to MSOs/LCOs. The major customer segment for RailTel comprises of Enterprises, Banks, Government Institutions/Department, Educational Institutions/Universities, Telecom Service Providers, Internet Service Providers, MSOs, etc. RailTel being a "Mini Ratna (Category-I)" PSU is steaming ahead in the enterprise segment with the launch of various services coupled with capacity augmentation in its Core network.

2. Purpose of EOI

RailTel Corporation of India Ltd (hereafter referred to as 'RailTel') an ICT arm of Indian Railways has been in the forefront of building innovative platforms and solutions and vision to build range of Information and Communication Technology (ICT) Services for its customers.

In this context, RailTel is working as a CSP and RailTel intends to setup a dedicated cloud infrastructure at Chennai for one of its client to host the smart meter applications along with other applications/solutions as per requirement of the client. The bidder shall provide the required infrastructure on OPEX / Rental model.

RailTel has been selected by the client to provide DC & DR services for the applications to be hosted for their smart meter applications. The primary cloud is required to be created their premises at Chennai with DR at RailTel's Gurgaon DC.

The present scope is for setting up the cloud infrastructure for hosting application supporting approx. 10 Lac meters. The bidder is required to quote the IT infrastructure with the margin for RailTel against the rate provided herewith. The bidder is required to quote considering the future additional scope that may be offered to the bidder (subject to approval of RailTel on case to case basis) in future. The future scope (under discussion with customer) includes the following:

| SN | Description | Approx. No. of meters |
|-----------|--------------------|---------------------------------|
| 1. | State-1 | 10 Lac (present requirement) |
| 2. | State-2 | 41 Lacs |
| 3. | State-3 | 28 Lacs |
| 4. | State-4 | 116 Lacs |
| 5. | State-5 | 7.8 Lacs |
| 6. | State-6 | 6.55 Lacs |

RailTel shall use the discovered cost/margin to submit its proposal to the Client in future. The selected bidder shall be required to support RailTel in submission of such proposals. The bidder has to provide undertaking to this effect that the bidder shall ensure providing discovered margin (minimum or better) to RailTel in these future requirements.

The details of the required IT infrastructure for cloud solution are provided below:

3. Objective of EOI

- a. To establish a robust and scalable data centre infrastructure for primary cloud.
- b. To ensure the secure and efficient operation of the servers, network devices, DR and storage systems at DC site
- c. To implement appropriate security stack to monitor:
 - i) **Server Installation and Configuration:** Install and configure servers with the necessary operating systems, drivers, and applications.
 - ii) **Network Devices Configuration:** Set up network devices, including routers, switches, and firewalls, with the appropriate configurations for seamless data communication.
 - iii) **Storage System Setup:** Install and configure the storage systems to provide reliable data storage and retrieval.
 - iv) **Security Software Implementation:** Install and configure security software, including firewalls, antivirus, and other security modules, to ensure the protection of the infrastructure.
 - v) **Documentation:** Create comprehensive documentation of the setup and configuration as per survey.

4. Scope of Work & Partner Selection

4.1. The brief scope of work is:

4.1.1 Managed Services

1. OS Management:

- Regular updates, patching, and maintenance of operating systems
- Configuration management and optimization.
- Monitoring for OS health and performance.

2. Database Management:

- Database installation, cluster configuration, and maintenance.
- Performance tuning and optimization.
- Backup and recovery strategies.
- Regular patching and updates.

3. Network Management

- Management of internal and external network connectivity.
- Network configuration and maintenance.
- Monitoring network performance and security.

4. Security Management

- Implementation, Integration and maintenance of security infrastructure.
- Regular security and Vulnerability Assessments.
- Incident response and security breach management.
- Applying patches and updates to maintain security.

5. Monitoring + Helpdesk Team

- 24/7 monitoring of Infrastructure and Services Support.
- Swift response to alerts and incidents assignment.
- Helpdesk support for end users to ensure timely response and resolution for reported tickets.

6. Patch Management

- Timely application of patches and updates.
- Ensuring systems are protected against known vulnerabilities.

4.1.2 Incident Management

1. ITIL-based Level 1, 2 & 3 Support system
 - Round-the-clock support for different levels of technical issues.
 - Team and shift management to ensure 24x7 support windows.
 - Troubleshooting and resolution of reported incidents.
 - Providing guidance and expertise for complex problems.
 - Publish agreed SLA reports to the stakeholders during O&M.
2. Incident, Problem & Change Management
 - Efficient process to handle and resolution of incidents and problems tickets.
 - Efficient approach to follow the Change Management process.
 - Periodic Review, Tracking and reporting on Incidents, Problems, and Changes.
3. Knowledge-base & FAQ
 - Creating and maintaining a repository of known Issues and instant solutions as per industry standard practices.
 - Developing a comprehensive FAQ for common issues and maintain to access.

4.1.3 Service Management

1. 24x7 Helpdesk Support
 - Continuous availability of helpdesk support.
 - Swift response and Incident resolution.
 - Enable effective communication mode to end users.
2. Problem/Technical Management
 - In-depth analysis and resolution of recurring issues.
 - Implementing preventive measures to avoid future incidents.
3. Change Management

- Careful planning, testing, and implementation of changes after approvals.
- Minimizing risks associated with changes and impact on business support system.

4. Escalation Management/Support Matrix

- Clearly defined escalation paths and support contacts.
- Ensuring timely resolution during escalation and communication.

4.2. Interested partners need to submit their EoI response in form of duly signed and stamped and sealed techno-commercial bid at the RailTel office either through post or by-hand, within the stipulated date and time, as mentioned in this EOI document. Address of the RailTel office where bid is to be submitted is:

**RailTel Corporation of India Ltd.
Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi – 110023**

4.3. Interested partners may note that this is a 'Single Packet Single Envelope' Bid. The bid should be placed in a sealed envelope. The cover envelope should have below information:

- EoI Name and Number
- Last Date and Time of Submission
- Addressed to the contact persons as mentioned in this EOI document
- Address of the Office where EOI is to be submitted, as mentioned in this EOI document.

4.4. Only bids submitted within the stipulated time mentioned in this EOI document will be opened.

4.5. For the opened bid, the bidder will be selected on the highest quote (H-1) basis offering highest margin to RailTel against complete 'Scope of Work' as cited in Clause 4.1. above, subject to the respective overall bid is complying to the requirements of this EOI. The so-selected partner will be termed a 'Commercially Suitable interested Partner. Further, RailTel reserves the right to negotiate with the interested partner.

4.6. As of now, EoI response from interested partners is invited considering that the selected partner will be responsible for delivering a complete 'Scope of Work' as cited at Clause 4.1. above. However, RailTel, at its discretion, may take up a certain portion/percentage of 'Scope of Work' by communicating to the Interested partners at any point of time during the engagement period. In this scenario, commercial engagement with the interested partner will be for that portion/percentage only, which has not been taken by RailTel. Accordingly, the resultant value of work will be derived based on the negotiated (*in case*) commercial bid of the interested partner.

4.7. The submitted bid (technical and commercial) should be valid for 180 days from the last date of submission of the EOI response, as mentioned in this EOI document.

5. Detailed Scope of Work

5.1 Creation of Private Cloud

For the Smart Meter Project, the customer is required to adopt cloud hosting utilizing the robust OpenStack platform. By leveraging the power of the cloud, the project aims to optimize data management, improve operational agility, and enhance customer experience. The project's applications will be hosted on a state-of-the-art cloud infrastructure, enabling seamless integration, real-time monitoring, and advanced analytics for efficient energy consumption management. With cloud hosting, applications can scale resources dynamically, ensure high availability, and provide a secure data storage and processing environment.

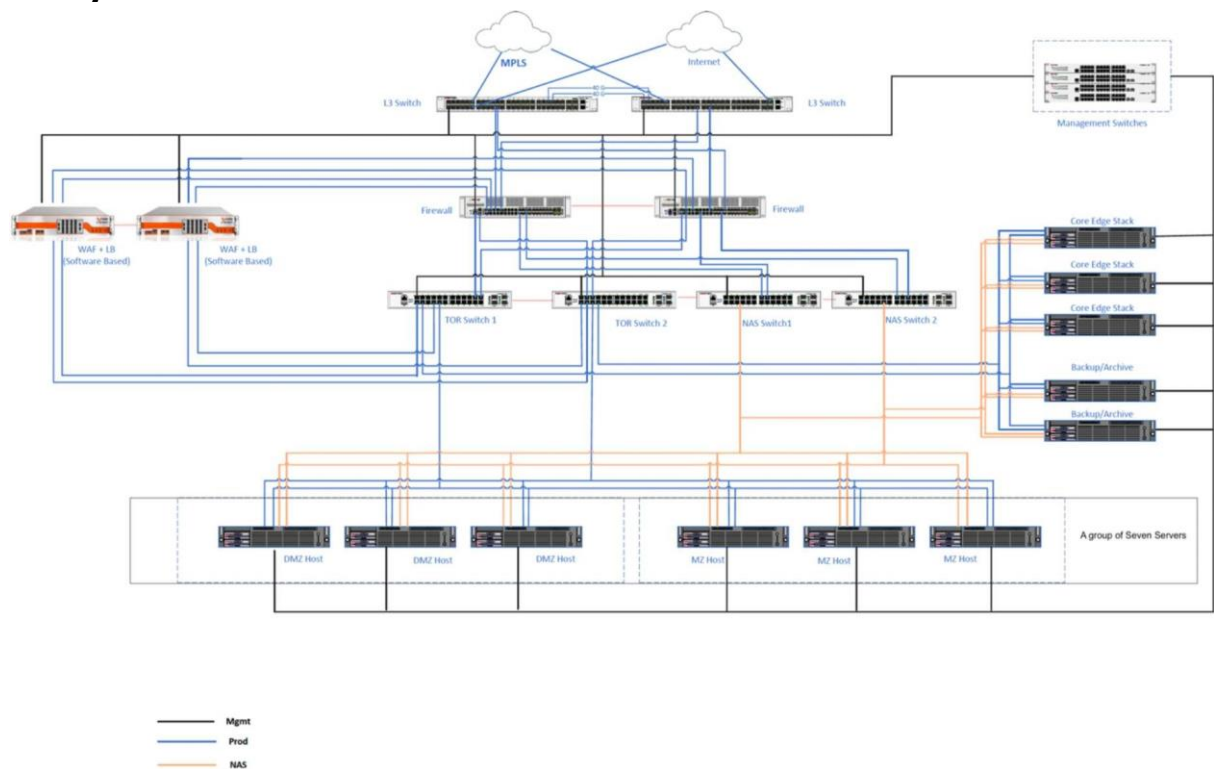
High Available Architecture

High Availability (HA) architecture refers to a system design approach that aims to minimize downtime and ensure continuous operation of critical applications or services. It involves implementing redundant components and mechanisms to mitigate the impact of hardware or software failures, network disruptions, or other unforeseen events. The primary goal of HA architecture is to provide reliable and uninterrupted access to applications, data, and services.

Scalability

- 5.1.1 HA architecture is designed to be scalable, allowing the system to handle increased workloads and growing demands. Horizontal scalability, achieved through the addition of more servers or instances, is commonly used to maintain performance and availability

5.2 Physical Architecture



5.3 Capacity BOM for creation of Private Cloud

| Component | Mode I | Qty |
|----------------------|--|-----------------|
| Server | 2 * Intel Xeon 32 Core Processor, 512 GB RAM, 2* 480 NVMe SSD, 2 * 25G Dual Port Network Card, 4 * 1G Copper Port, 6 * 7.5 TB NVMe SSD, NVMeRaid Controller, Dual Power Supply | As per Solution |
| Server Controller | 2 * Intel Xeon 16 Core Processor, 128 GB RAM, 2*1TB SSD,1* 25G Dual Port Network Card,4 * 1GCopper Port, Dual Power Supply | As per Solution |
| Server Data Archival | 2 * Intel Xeon 12 Core Processor, 128 GB RAM, 50TB Usable NLSAS,2*480GB SSD,1 * 10/25G Dual Port Network Card, 4 * 1G Copper Port, Dual PowerSupply. | As per Solution |
| NAS Switch | Layer 2/3 FortiGate switch controller compatibleswitch with 24 x GE/10GE SFP/SFP+ slots and 2 x100GE QSFP28. Dual AC power supplies | As per Solution |
| ToR Switch | Layer 2/3 FortiGate switch controller compatibleswitch with 48x25G(SFP28) +8x100G (QSFP28) + 2x10G(SFP+). Dual AC power supplies | As per Solution |
| Management Switch | Layer 2/3 FortiGate switch controller compatibleswitch with 48 x GE RJ45 ports, 4 x 10 GE SFP+ | As per Solution |

| | | |
|---|--|-----------------|
| L3/CORE Switch | Layer 2/3 FortiGate switch controller compatible switch with 48x25G(SFP28) +8x100G (QSFP28)+2x10G(SFP+). Dual AC power supplies | As per Solution |
| Firewall | 4x 25G SFP28 slots, 4 x 10GE SFP+ slots, 17 x GERJ45 ports (including 1 x MGMT port, 16 x switch ports), 1 X 2.5G HA port, 8 x GE SFP slots, SPU NP7 and CP9 hardware accelerated, dual AC PSU. Unified Threat Protection (UTP) (IPS, Advanced Malware Protection, Application Control, URL, DNS & Video Filtering, Antispam Service, and FortiCare Premium) | As per Solution |
| WAF & NLB (for SSL offloading) | Application Delivery Controller - 4 x GE RJ45 ports, 4 x SFP GE ports, 2 x SFP+ 10GbE ports, 1 x 128GB SSD storage, Hardware SSL Accelerator, Optional Redundant PSU | As per Solution |
| AD | Windows server standard with 50 CAL user | As per Solution |
| SIEM | Devices and EPS | As per Solution |
| PAM (Priv Access Management) | Users licenses | As per Solution |
| AV | Users licenses | As per Solution |
| Backups for App & DB | Capacity based & will be scaled | As per Solution |
| Forti authenticator | License supports 100 users | As per Solution |
| VPN for maintenance activities | Endpoints | As per Solution |

6. Compliance Requirements for Interested Bidder

6.1. The interested partner (also called as 'interested bidder') should be an Empanelled Partner with RailTel on the date of bid submission. Copy of RailTel's Empanelment Letter may be submitted in this regard.

6.2. The interested partner should submit EOI Earnest Money Deposit (EOI-EMD) through NEFT/RTGS in favour of 'RailTel Corporation of India Ltd.', of amount and in RailTel's bank account, as mentioned in this EoI document. UTR No. and Bank details should be submitted by in this regard. EoI response without 'Pre-Bid EMD' details is liable for rejection without assigning any further notice.

6.3. The interested bidder should comply to insertion of Rule 144(xi) in the GFR, 2017 vide office OM no. 6/18/2019-PPD dated 23-July-2020 issued by Ministry of Finance, Government of India, including revisions.

6.4. The interested bidder should not be backlisted by any State / Central Government Ministry / Department / Corporation / Autonomous Body in India, on the last date of submission of EOI.

6.5. There should not be any ongoing or past, arbitration case(s) between 'RailTel' and 'Interested Bidder' on the last date of submission of EOI.

6.6. The interested partner should have a valid Goods and Service Tax Identification Number (GSTIN), as on the last date of submission of EOI.

6.7. In addition to the above, interested partner should comply to below requirements:

| Sr No | Basic Requirement | Specific Requirements | Documents Required |
|-------|---|---|--|
| 1 | Legal Entity | The Interested Bidder should be a Company registered under Companies Registration act 1956/2013 or LLP Act, 2008, any registered company/ agency/ organization that registered as per Government of India norms and must have 10 years of existence in India as on bid submission date. | Valid copy of the certificate of incorporation |
| 2 | Certifications | Interested Bidder should possess below Certifications (any 2) which are valid on the date of bid submission: <ul style="list-style-type: none"> • CMMI Level 3 • ISO 9001 • ISO 20000 • ISO 27001 | Copy of Valid Certificate |
| 3 | Experience in Data Center Survey and Implementation | The Interested Bidder should have successfully executed: a. projects of design & implementation of Data Center/ICT services with the contract value of: <ul style="list-style-type: none"> • Single project of value \geq INR 11 Cr or • 02 projects of value \geq INR 7.50 Cr each or • 03 projects of value \geq INR 5.50 Cr each for any Govt./PSUs during the last 5 years as on submission date. CA certificate on project value need to be provided by the interested bidder. | Certificate duly signed by CA/Auditor having details of the project supported by a copy of PO or Go-live or Completion certificate |

| Sr No | Basic Requirement | Specific Requirements | Documents Required |
|-------|----------------------|--|--|
| 4 | Financial Experience | Cumulative Turnover of Rs. 21 Crore during the last 03 financial years. | Certificate duly signed by CA/Auditor |
| 5 | Employee Strength | The Interested Bidder should have at least 25 professionals working on Data Center Implementation / Infrastructure / Security / Server / Network. All the resources should be on the interested bidder's payroll on the date of submission of bid. | HR Certificate along with list of employees having relevant details of certification |

Note: The interested bidder should submit a duly signed and stamped EOI cover letter in the format mentioned at Annexure-01 of this EOI document as unconditional submission of meeting the clauses mentioned above, from Clause 6.1 to Clause 6.7.

6.8 Technical Compliance:

6.8.1. Server

| S. No. | Parameter | Specifications | Compliance (Yes / No) |
|--------|------------------------|--|-----------------------|
| 1 | Rack Height | 2U or lower | |
| 2 | CPU Support | Must support 2 CPU's | |
| 3 | Processors | minimum 2 processor with 32 Cores or better | |
| 5 | Memory | Minimum 512 GB RAM per server | |
| 6 | Hard Drives | Minimum 2 X 480GB NVMe SSD & 6 X 7.5TB NVMe SSD | |
| 7 | RAID Card | RAID Controller Card supports RAID 1, 5 or better | |
| 9 | NIC ports | Minimum 2 X 25G dual ports network card & 4 X 1G ports | |
| 11 | Redundant Power Supply | Dual, Hot-plug, Redundant Power Supply | |
| 12 | Out-of-Band | Must Support 1G Out of Band connectivity | |

| | | | |
|----|----------------------------|--|--|
| 13 | Power & temperature | Real-time power meter, graphing, thresholds, alerts & capping with historical power counters. Temperature monitoring & graphing | |
| 14 | Pre-failure alert | Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD | |
| 15 | Configuration & management | <ul style="list-style-type: none"> • Real-time out-of-band hardware performance monitoring & alerting • Agent-free monitoring, driver updates & configuration, power monitoring & capping, RAID management & system health | |
| 16 | Warranty | Till project duration | |

6.8.2. Server Controller

| S. No. | Parameter | Specifications | Compliance (Yes / No) |
|--------|----------------------------|--|-----------------------|
| 1 | Rack Height | 2U or lower | |
| 2 | CPU Support | Must support 2 CPU's | |
| 3 | Processors | minimum 2 processor with 16 Cores or better | |
| 5 | Memory | Minimum 128 GB RAM per server | |
| 6 | Hard Drives | Minimum 2 X 1 TB SSD | |
| 7 | RAID Card | RAID Controller Card supports RAID 1, 5 or better | |
| 9 | NIC ports | Minimum 1 X 25G dual ports network card & 4 X 1G ports | |
| 11 | Redundant Power Supply | Dual, Hot-plug, Redundant Power Supply | |
| 12 | Out-of-Band | Must Support 1G Out of Band connectivity | |
| 13 | Power & temperature | Real-time power meter, graphing, thresholds, alerts & capping with historical power counters. Temperature monitoring & graphing | |
| 14 | Pre-failure alert | Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD | |
| 15 | Configuration & management | <ul style="list-style-type: none"> • Real-time out-of-band hardware performance monitoring & alerting • Agent-free monitoring, driver updates & configuration, | |

| | | | |
|----|----------|---|--|
| | | power monitoring & capping, RAID management & system health | |
| 16 | Warranty | Till project duration | |

6.8.3. Server Data Archival

| S. No. | Parameter | Specifications | Compliance (Yes / No) |
|--------|----------------------------|--|-----------------------|
| 1 | Rack Height | 2U or lower | |
| 2 | CPU Support | Must support 2 CPU's | |
| 3 | Processors | minimum 2 processor with 12 Cores or better | |
| 5 | Memory | Minimum 128 GB RAM per server | |
| 6 | Hard Drives | Minimum 50 TB NL-SAS usable per server & 2 X 480 GB SSD | |
| 7 | RAID Card | RAID Controller Card supports RAID 1, 5 or better | |
| 9 | NIC ports | Minimum 1 X 10/25G dual ports network card & 4 X 1G ports | |
| 11 | Redundant Power Supply | Dual, Hot-plug, Redundant Power Supply | |
| 12 | Out-of-Band | Must Support 1G Out of Band connectivity | |
| 13 | Power & temperature | Real-time power meter, graphing, thresholds, alerts & capping with historical power counters. Temperature monitoring & graphing | |
| 14 | Pre-failure alert | Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD | |
| 15 | Configuration & management | <ul style="list-style-type: none"> • Real-time out-of-band hardware performance monitoring & alerting • Agent-free monitoring, driver updates & configuration, power monitoring & capping, RAID management & system health | |
| 16 | Warranty | Till project duration | |

6.8.4. NAS Switch

| S/no | Specifications | Comply (Yes/no) |
|------|---|-----------------|
| 1 | Should have 24 GE/10GE SFP+ Port and 2x 40GE / 100GE QSFP+ / QSFP28 ports for Uplink connectivity | |
| 2 | Should have 880 Gbps of Switching capacity or more | |
| 3 | Should have 1309 Mpps of Packets Forwarding or more | |
| 4 | Should have 64K or more MAC address table | |
| 5 | Should have 4K or more VLAN support | |
| 6 | Switch should support simple management access i.e. without the need for local management clients (HTTPS preferred) | |
| 7 | Switch should support SNMP for polling of system statistics, SNMP traps, SNMP MIB download from GUI | |
| 8 | Should log all authentication events Locally and to Syslog Server | |
| 9 | Should support backup of the full system configuration via the GUI | |
| 10 | Should support a local user database | |
| 11 | Should have built-in tcpdump-like tool and log collecting functionality | |
| 12 | Should support REST API for configuration and monitoring | |
| 13 | Should support multiple configuration files with 2 bootable partitions for better availability and easy upgrade / fallback. | |
| 14 | Should support auto-ranging power supply with input voltages between 100 and 240V AC | |
| 15 | Should support jumbo frames | |
| 16 | Should support link auto-negotiation | |
| 17 | Should support Spanning Tree Protocol, STP Root Guard, BPDU Guard | |
| 18 | Should support IEEE 802.1p Mapping to priority queue and VLAN tagging | |
| 19 | Should support IEEE 802.3ad Link Aggregation with LACP | |
| 20 | Should support load balancing algorithms with Link Aggregation | |
| 21 | Should support Auto Discovery of Multiple Switches from central management system | |
| 22 | Should support 802.1x MAC-based authentication | |
| 23 | Should support MAC Authentication Bypass (MAB) | |
| 24 | Should support load balancing algorithms with Link Aggregation | |
| 25 | Should support full line rate without traffic oversubscription | |
| 26 | Should support telnet/SSH | |
| 27 | Should support SNTP | |
| 28 | Should support firmware download via TFTP/FTP/GUI | |

| | | |
|----|---|--|
| 29 | Should support Policy-Based Routing from central management system | |
| 30 | Should support Policy Control of Users and Devices from central management system | |
| 31 | Should support Black listing and While Listing of MAC address from central management system | |
| 32 | Should support Storm Control, | |
| 33 | Should support LoopGuard | |
| 34 | Should support IGMP snooping | |
| 35 | Should support DHCP snooping and DHCP relay | |
| 36 | Should support Port mirroring | |
| 37 | Should support security checks | |
| 38 | Should support Dynamic ARP Inspection | |
| 39 | Should support Sticky Mac | |
| 40 | Should support virtual wire | |
| 41 | Should support Dynamic Routing Protocols (IPv4/IPv6) OSPF, RIP, VRRP, BGP, ISIS,VRF, VXLAN | |
| 42 | Should support 802.1x MAC-based authentication | |
| 43 | Should support IP Conflict Detection and Notification | |
| 44 | Should support Auto Discovery of Multiple Switches from central management system | |
| 45 | Should support 16k L3 Host Entries | |
| 46 | Should support 8k Multicast Route Entries | |
| 47 | Should support Route Entries (IPv4/IPv6) 16k/8k | |
| 48 | Should have dual hot swappable Power Supply | |
| 49 | Security functionalities allowed to be extended till the access port. Proposed Firewall, Core & access Switches, Access points should preferably from single OEM in case of multiple OEM's solution integration to be built by bidders. | |
| 50 | The switch shall manager from proposed Firewall | |

6.8.5. TOR Switch

| S/no | Specifications | Comply (Yes/no) |
|------|---|-----------------|
| 1 | Should have 48 GE/10GE SFP+ Port and 8x 40GE / 100GE QSFP+ / QSFP28 ports for Uplink connectivity | |

| | | |
|----|---|--|
| 2 | Should have 4000 Gbps of Switching capacity or more | |
| 3 | Should have 4000 Mpps of Packets Forwarding or more | |
| 4 | Should have 96K or more MAC address table | |
| 5 | Should have 4K or more VLAN support | |
| 6 | Switch should support simple management access i.e. without the need for local management clients (HTTPS preferred) | |
| 7 | Switch should support SNMP for polling of system statistics, SNMP traps, SNMP MIB download from GUI | |
| 8 | Should log all authentication events Locally and to Syslog Server | |
| 9 | Should support backup of the full system configuration via the GUI | |
| 10 | Should support a local user database | |
| 11 | Should have built-in tcpdump-like tool and log collecting functionality | |
| 12 | Should support REST API for configuration and monitoring | |
| 13 | Should support multiple configuration files with 2 bootable partitions for better availability and easy upgrade / fallback. | |
| 14 | Should support auto-ranging power supply with input voltages between 100 and 240V AC | |
| 15 | Should support jumbo frames | |
| 16 | Should support link auto-negotiation | |
| 17 | Should support Spanning Tree Protocol, STP Root Guard, BPDU Guard | |
| 18 | Should support IEEE 802.1p Mapping to priority queue and VLAN tagging | |
| 19 | Should support IEEE 802.3ad Link Aggregation with LACP | |
| 20 | Should support load balancing algorithms with Link Aggregation | |
| 21 | Should support Auto Discovery of Multiple Switches from central management system | |
| 22 | Should support 802.1x MAC-based authentication | |
| 23 | Should support MAC Authentication Bypass (MAB) | |
| 24 | Should support load balancing algorithms with Link Aggregation | |
| 25 | Should support full line rate without traffic oversubscription | |
| 26 | Should support telnet/SSH | |
| 27 | Should support SNTP | |
| 28 | Should support firmware download via TFTP/FTP/GUI | |
| 29 | Should support Policy-Based Routing from central management system | |
| 30 | Should support Policy Control of Users and Devices from central management system | |

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| 31 | Should support Black listing and While Listing of MAC address from central management system | |
| 32 | Should support Storm Control, | |
| 33 | Should support LoopGuard | |
| 34 | Should support IGMP snooping | |
| 35 | Should support DHCP snooping and DHCP relay | |
| 36 | Should support Port mirroring | |
| 37 | Should support security checks | |
| 38 | Should support Dynamic ARP Inspection | |
| 39 | Should support Sticky Mac | |
| 40 | Should support virtual wire | |
| 41 | Should support Dynamic Routing Protocols (IPv4/IPv6) OSPF, RIP, VRRP, BGP, ISIS,VRF, VXLAN | |
| 42 | Should support 802.1x MAC-based authentication | |
| 43 | Should support IP Conflict Detection and Notification | |
| 44 | Should support Auto Discovery of Multiple Switches from central management system | |
| 45 | Should support 16k L3 Host Entries | |
| 46 | Should support 8k Multicast Route Entries | |
| 47 | Should support Route Entries (IPv4/IPv6) 16k/8k | |
| 48 | Should have dual hot swappable Power Supply | |
| 49 | Security functionalities allowed to be extended till the access port. Proposed Firewall, Core & access Switches, Access points should preferably from single OEM in case of multiple OEM's solution integration to be built by bidders. | |
| 50 | The switch shall manager from proposed Firewall | |

6.8.6. Management Switch

| S/no | Specifications | Comply (Yes/no) |
|------|--|-----------------|
| 1 | Switch should have 48 x GE RJ45 ports | |
| 2 | Switch should have 4 x 10GE SFP+ ports | |
| 3 | Switch should provide 176 Gbps of switching capacity | |
| 4 | Switch should provide 262 Mpps of PPS throughput | |
| 5 | Switch should have a capacity of 32k MAC | |

| | | |
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| 6 | Switch should be in the form of 1RU with 19" Rackmount | |
| 7 | Switch should provide traffic prioritization (IEEE 802.1p) allows real-time traffic classification into priority levels mapped to queues | |
| 8 | Switch should provide layer 4 prioritization based on TCP/UDP port numbers | |
| 9 | Switch should provide class of service (CoS) sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ | |
| 10 | Switch should provide Rate limiting sets per-port ingress enforced maximums and per-port, per-queue minimums | |
| 11 | Switch should support IEEE 802.1s Multiple Spanning Tree provides high link availability by allowing multiple spanning trees; provides legacy support for IEEE 802.1d and IEEE 802.1w | |
| 12 | Switch should support IEEE 802.3ad link-aggregation-control protocol (LACP) and port trunking support up to 26 static, dynamic, or distributed trunks with each trunk having up to eight links (ports) per static trunk | |
| 13 | Switch should support SNMPv1, v2, and v3 provide complete; support of industry-standard Management Information Base (MIB) plus private extensions; SNMPv3 supports increased security using encryption | |
| 14 | Switch should support dual flash images provide independent primary and secondary operating system files for backup while upgrading | |
| 15 | Switch should support custom port names to allow assignment of descriptive names to ports | |
| 16 | Switch should have VLAN support and tagging supports IEEE 802.1Q (4,094 VLAN IDs) and 512 VLANs simultaneously | |
| 17 | Switch should support jumbo packets to improves the performance of large data transfers; supported frame size of up to 9,220 bytes | |
| 18 | Switch should support Rapid per-VLAN spanning tree (RPVST+) to allows each VLAN to build a separate spanning tree to improve link bandwidth usage; is compatible with PVST+ | |
| 19 | Switch should support DHCP server to centralize and reduces the cost of Ipv4 address management | |
| 20 | Switch should support static IP routing to provide manually configured routing | |
| 21 | Switch should use an IEEE 802.1X supplicant on the client in conjunction with a RADIUS server to authenticate in accordance with industry standards | |
| 22 | Switch should support multiple IEEE 802.1X users per port to provide authentication of multiple devices on a single port; which will prevent a user from piggybacking on another user's IEEE 802.1X authentication | |
| 23 | Switch should support RADIUS/TACACS+ to ease switch management security administration by using a password authentication server | |

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| 24 | Switch must have option to ping using Switch serial number instead of the Switch IP address. | |
| 25 | Switch should support secure shell encryption for all transmitted data for secure remote CLI access over IP networks | |
| 26 | Switch should support Secure Sockets Layer (SSL) encryption for all HTTP traffic, allowing secure access to the browser-based management GUI in the switch | |
| 27 | The switch shall manager from proposed Firewall | |
| 28 | Security functionalities allowed to be extended till the access port. Proposed Firewall, Core & access Switches, Access points should 24referably from single OEM in case of multiple OEM's solution integration to be built by bidders. | |
| 29 | Switches should be capable of providing visibility to the devices connected in to the connected ports | |

6.8.7 L3/Core Switch

| S/no | Specifications | Comply (Yes/no) |
|------|---|-----------------|
| 1 | Should have 48 GE/10GE SFP+ Port and 8x 40GE / 100GE QSFP+ / QSFP28 ports for Uplink connectivity | |
| 2 | Should have 4000 Gbps of Switching capacity or more | |
| 3 | Should have 4000 Mpps of Packets Forwarding or more | |
| 4 | Should have 96K or more MAC address table | |
| 5 | Should have 4K or more VLAN support | |
| 6 | Switch should support simple management access i.e. without the need for local management clients (HTTPS preferred) | |
| 7 | Switch should support SNMP for polling of system statistics, SNMP traps, SNMP MIB download from GUI | |
| 8 | Should log all authentication events Locally and to Syslog Server | |
| 9 | Should support backup of the full system configuration via the GUI | |
| 10 | Should support a local user database | |
| 11 | Should have built-in tcpdump-like tool and log collecting functionality | |
| 12 | Should support REST API for configuration and monitoring | |

| | | |
|----|---|--|
| 13 | Should support multiple configuration files with 2 bootable partitions for better availability and easy upgrade / fallback. | |
| 14 | Should support auto-ranging power supply with input voltages between 100 and 240V AC | |
| 15 | Should support jumbo frames | |
| 16 | Should support link auto-negotiation | |
| 17 | Should support Spanning Tree Protocol, STP Root Guard, BPDU Guard | |
| 18 | Should support IEEE 802.1p Mapping to priority queue and VLAN tagging | |
| 19 | Should support IEEE 802.3ad Link Aggregation with LACP | |
| 20 | Should support load balancing algorithms with Link Aggregation | |
| 21 | Should support Auto Discovery of Multiple Switches from central management system | |
| 22 | Should support 802.1x MAC-based authentication | |
| 23 | Should support MAC Authentication Bypass (MAB) | |
| 24 | Should support load balancing algorithms with Link Aggregation | |
| 25 | Should support full line rate without traffic oversubscription | |
| 26 | Should support telnet/SSH | |
| 27 | Should support SNMP | |
| 28 | Should support firmware download via TFTP/FTP/GUI | |
| 29 | Should support Policy-Based Routing from central management system | |
| 30 | Should support Policy Control of Users and Devices from central management system | |
| 31 | Should support Black listing and White Listing of MAC address from central management system | |
| 32 | Should support Storm Control, | |
| 33 | Should support LoopGuard | |
| 34 | Should support IGMP snooping | |
| 35 | Should support DHCP snooping and DHCP relay | |
| 36 | Should support Port mirroring | |
| 37 | Should support security checks | |
| 38 | Should support Dynamic ARP Inspection | |
| 39 | Should support Sticky Mac | |
| 40 | Should support virtual wire | |
| 41 | Should support Dynamic Routing Protocols (IPv4/IPv6) OSPF, RIP, VRRP, BGP, ISIS,VRF, VXLAN | |

| | | |
|----|---|--|
| 42 | Should support 802.1x MAC-based authentication | |
| 43 | Should support IP Conflict Detection and Notification | |
| 44 | Should support Auto Discovery of Multiple Switches from central management system | |
| 45 | Should support 16k L3 Host Entries | |
| 46 | Should support 8k Multicast Route Entries | |
| 47 | Should support Route Entries (IPv4/IPv6) 16k/8k | |
| 48 | Should have dual hot swappable Power Supply | |
| 49 | Security functionalities allowed to be extended till the access port. Proposed Firewall, Core & access Switches, Access points should preferably from single OEM in case of multiple OEM's solution integration to be built by bidders. | |
| 50 | The switch shall manager from proposed Firewall | |

6.8.8 Firewall

| Sr No. | Specifications | Compliance (Yes /No) |
|--------|---|----------------------|
| 1 | The Firewall should be Hardware based, Reliable, purpose-built security appliance with hardened operating system that eliminates the security risks associated with general-purpose operating systems | |
| 2 | The Proposed Firewall Vendor should be in the Leaders' Quadrant of Gartner Magic Quadrant for Enterprise Network Firewall. | |
| 3 | The OEM should have global presence from last 15 years in the industry with inhouse threat intel database to prevent against known and unknown malware. | |
| 4 | Firewall appliance should have at least 16 x 1GE RJ45 interface, 8 x 1GE SFP slot & 8x 10 GE SFP+ slot interfaces. | |
| 5 | The solution should support minimum 20 Gbps of Threat Prevention (FW + IPS + AVC + AV) throughput for Mix / production traffic | |
| 6 | Firewall should support 15 Million concurrent sessions and 500k new sessions per second | |
| 7 | The Firewall solution should support NAT64, NAT46, DNS64 & DHCPv6 | |
| 8 | The proposed system shall be able to operate on either Transparent (bridge) mode to minimize interruption to existing network infrastructure or NAT/Route mode. Both modes can also be available concurrently using Virtual Contexts. | |
| 9 | Should have Ipsec and SSL VPN with inbuilt hardware VPN acceleration and have 40 Gbps IPsec throughput | |

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| 10 | The IPS system shall have at least 25 Gbps throughput with 15,000 signatures and The proposed system shall have the ability to detect, log and take action against network traffic based on over 4000+ application signatures | |
| 11 | The proposed system shall have built-in high availability (HA) features without extra cost/license or hardware component should support Active/Active and Active/ Passive from day one. | |
| 12 | The appliance should have dual internal power supply from day one | |
| 13 | <p>The proposed system should be able to block, allow or monitor only using AV signatures and file blocking based on per firewall policy based or based on firewall authenticated user groups with configurable selection of the following services:</p> <ul style="list-style-type: none"> a) HTTP, HTTPS b) SMTP, SMTPS c) POP3, POP3S d) IMAP, IMAPS e) FTP, FTPS | |
| 14 | The proposed system should have integrated Web Content Filtering solution without external solution, devices or hardware modules. The proposed system shall be able to queries a real time database of over 110 million + rated websites categorized into 70+ unique content categories. | |
| 15 | Should support 3rd Party Integrations Requirement Cisco ACI, Amazon Web Services (AWS), Microsoft Azure, VMWare, Nuage Virtualized Services Platform | |
| 16 | <p>The Proposed system shall support SD-WAN.</p> <p>SD-WAN Policies based on:</p> <ul style="list-style-type: none"> Firewall Addresses Internet Service Database Application awareness Preferred Interface | |
| 17 | <p>Automation & Incident Response</p> <p>The Proposed system shall support automation response based on following events:</p> <ul style="list-style-type: none"> Compromised Hosts detected Configuration Change Event Log High CPU License Expiry <p>The action taken by automation / incident response shall include:</p> <ul style="list-style-type: none"> Email Alert Access Layer Quarantine IP Ban AWS Lambda Web Hook | |

6.8.9 & 6.8.10. WAF & NLB (for SSL offloading)

| Sr No. | Specifications | Compliance (Yes /No) |
|---------------|---|-----------------------------|
| | Architecture | |
| 1 | The Load Balancer shall distribute traffic efficiently while ensuring high application availability. It shall monitor server health to determine that application servers are not only reachable but alive. If the Load Balancer detects issues, it shall automatically remove downed servers from the server pool and rebalance traffic among the remaining servers. It shall be appliance based and shall facilitate multi-vendor, multi-application environment and shall support third-party products | |
| 2 | The Load Balancer shall deliver the high availability required by modern data centres. It should support Active/Passive or Active / Active HA configurations. The Load Balancer shall automatically synchronize configurations between the pair and automatically failover if any fault is detected with the primary unit | |
| 3 | The load balancer shall be built on high-performance hardware, designed for data centres. It shall deliver application traffic of all types and scalable to meet the throughput needs of the most demanding applications | |
| 4 | The Load Balancer shall support offloading of SSL connections | |
| 5 | The Load Balancer shall improve the user's experience by increasing server response time. Shall support Caching web content that saves network bandwidth requirements and reduce loads on backend web servers. | |
| 6 | The Load Balancer Shall have full traffic control and be able to route requests to servers based on region, device, browser, or a number of other factors. This enables organization to deliver customized application responses to users. | |
| 7 | To maximize outbound bandwidth, the Load Balancer shall automatically compress content to minimize network traffic between application servers and the end user. The load balancer should support 8 Gbps of compression throughput. This capability shall be compatible with most modern browsers, requiring no additional software | |
| 8 | Most applications use cookies or hidden, read-only parameters for application session state and other sensitive information. The Load Balancer shall encrypt or sign these tokens to prevent third party impersonation attacks | |
| 9 | The solution must be hardware appliance based with hot-swap inbuilt dual power supply | |
| | Performance | |
| 10 | The server load balancer should deliver 12 Gbps of Layer 7 throughput | |
| 11 | The server load balancer should deliver 10 Million concurrent sessions | |
| 12 | The server load balancer should deliver 6 Gbps of SSL throughput | |
| 13 | The server load balancer should cater up to 12,000 SSL connections per second on 2K key | |

| | | |
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| 14 | The sever load balancer should be proposed with 4x1GE, 4x1G SFP ports and 2x10G SFP+ SR ports | |
| 15 | The sever load balancer should support 20 Virtual context from day one. | |
| | Features required for Load Balancer | |
| 16 | Local Application Switching, Server load Balancing, HTTP,TCP Multiplexing, Compression, Caching, TCP Optimization, Filter-based Load Balancing, Transparent Deployments, Content-based Load Balancing, Persistency, HTTP Content Modifications, QoS, Support for connection pooling to TCP request, Support for distributed denial-of-service (DDoS) protection | |
| | Load Balancer QoS features | |
| 17 | It should have the capability of Rate shaping & QoS Support to optimize and handle heavy Layer 4 through 7 traffic loads while delivering Latency Sensitive Applications | |
| | GSLB | |
| 18 | It should support load balancing of servers between different data centers without any additional license | |
| | High Availability | |
| 19 | The solution should provide comprehensive and reliable support for high availability and N+1 clustering based on stateful session failover with Active-active & active standby unit redundancy mode. | |
| | Security | |
| 20 | The proposed Server load balancer should have option to enable anti virus engine by enabling licenses. | |
| | The proposed Server load balancer should have Stateful Firewall to block ip based traffic | |

6.8.11. SIEM

| SIEM (Security Information and Event Management) | | |
|---|---|-----------------------------|
| Sr No. | SIEM Specs | Compliance (Yes /No) |
| 1 | SIEM solution should provide a dedicated appliance with provision of scaling up with distributed architecture and capable of processing 1500 EPS with scalability to 3000 EPS in future with collector. | |
| 2 | SIEM solution must support 100 device license from day one. | |
| 3 | The SIEM solution must be able to store both the raw event log as well as the parsed event log/normalized data. | |

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| 4 | There should be no requirement for a separate "storage" tier that filters or sends a subset of events forwarded by Collector / collectors to a correlation tier. The SIEM solution must be able to process every event forwarded by the collection tier. | |
| 5 | The SIEM must be able to collect additional context beyond log data from devices and this should be achieved by actively discover the devices within the network without an agent and using standard protocols such as SNMP, WMI, VM SDK, JDBC, Telnet, SSH, JMX etc | |
| 6 | Discovered device should be presented in a Configuration Management Database (CMDB) within the SIEM solution and display at a minimum Version/Firmware/OS installed on the device, Device serial number and Interfaces configured on the device with name, IP, subnet, status, interface speed, processes running on the device or operating system | |
| 7 | Devices should automatically be populated within groups in the CMDB, for example Firewall Group and be able to report on all information within the CMDB including firmware of devices or version number, audit report with pass/fail whether the device has the appropriate version of Version/Firmware/OS installed on the device, collect performance metric of CPU, Memory, Disk . Process utilization etc | |
| 8 | The SIEM should provide a unified analytics interface that allows the same query language to analyse both log data and performance data. Both raw, parsed and enriched data must be passed to the SIEM solution from the collectors. Processing of event data should be performed by parsers on the system. All parsers should be able to be modified and customized. | |
| 9 | Devices can be monitored without agents via SSH, telnet WMI, JMX and PowerShell. | |
| 10 | Ability to integrate with Threat Intelligence (TI) feeds | |
| 11 | The solution should provide out of the box reports, at no additional charge, for PCI-DSS, HIPAA, SOX, NERC, FISMA, ISO, GLBA, GPG13, and SANS critical controls | |
| 12 | The solution should have the ability to export and import dashboards, reports and rules via XML. It should be able to collect network device configuration, identify changes and provide side-by-side comparison and the dashboard visualizations must support the following chart types Bar, Pie, Line and Table | |
| 13 | The SIEM solution should be customizable with virtualization support to manage overlapping systems and networks from a single dashboard | |
| 14 | The SIEM solution should be able to monitor application performance within the network | |
| 15 | The SIEM solution should be able to monitor and discover user login anomalies | |
| 16 | The SIEM solution should be able to discover devices connected to the network | |
| 17 | The SIEM Solution should be able to detect behaviour anomalies of users | |
| 18 | The SIEM solution should be able to monitor server and application behaviour | |
| 19 | The SIEM solution shall be able to discover data exfiltration attempts | |

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| 20 | The SIEM solution must have ready dashboards for MITRE Framework, Risk Framework and Compliances | |
| 21 | The SIEM solution must have the ready reports for compliances like PCI, SOX, CoBIT among others | |
| 22 | The SIEM solution must have the capability to create custom dashboards and reports | |
| 23 | The SIEM solution should have in-built ticketing capability | |
| 24 | The SIEM solution should be able to collect NetFlow information for analysis | |
| 25 | The SIEM solution must have the capability to remediate threats directly from the console by running scripts remotely | |
| 26 | The SIEM solution must be able to measure and report system performance metrics like CPU usage, RAM utilization, Data storage etc. | |
| 27 | The proposed solution shall monitor critical data for file integrity and report any modification and deletion of data | |

6.8.12. PAM

| Sr.No | Features | Compliance (Yes/No) |
|-------|---|---------------------|
| 1 | Solution should support privileged Session Protocols - Terminal Rdp, Vnc, Ssh, Telnet etc. | |
| 2 | Solution should support multitenant | |
| 3 | Solution should support 4A protocols i.e. Authentication, auditing, accounting & authorization | |
| 4 | Solution should support distributed deployment | |
| 5 | Solution should support Unified Login and Authentication for resource; LDAP/AD authentication; RADIUS authentication; Single Sign-on (OpenID authentication, CAS authentication); SSO integration | |
| 6 | Solution should support MFA | |
| 7 | Solution should have Users, user groups, assets, nodes of assets, applications and system users can be authorization capability | |
| 8 | Solution should be able to Displayed in a tree structure, assets and nodes of the asset tree can be flexibly authorized; Assets in nodes can inherit the authorization automatically; Child nodes automatically inherit the authorization from parent nodes | |
| 9 | Solution should Support database authorization including MySQL etc. | |
| 10 | Solution should support finer-grained application authorization; | |

| | | |
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| 11 | Isolution should be able to control the commands executed by authorized system users; Authorized system users' command execution is under control. | |
| 12 | Solution should support SFTP file upload/download and Web SFTP file management; | |
| 13 | Solution should support management of management user and system user; | |
| 14 | Solution should Support asset password managed service; Automatic generation of password; Automatic push of password; Password expiration setting; | |
| 15 | Solution should support for auditing the logs of users logging into the JumpServer system and collecting the audit information to Syslog; | |
| 16 | Solution should support user operation behavior auditing; | |
| 17 | Solution should support online session content auditing and historical session content auditing; | |
| 18 | Solution Should support auditing recordings of asset operations (such as Linux and Windows machine) and application operations | |
| 19 | Solution should be able to provide the capability of monitoring and interrupting the user's operation behavior in real time to the administrator/auditor, so as to improve the security of user's operation. | |
| 20 | Solution should support auditing operation commands of asset and application and alerting to commands with high risks. | |
| 21 | Solution should support auditing the records of the file upload/download; | |
| 22 | PAM solution support integration with SIEM tool for forwarding the security logs/events | |
| 23 | PAM solution should have the following components: 1. Console 2. Workench 3. Audit | |
| 24 | The proposed solution should have option to create the ACL to give more grnauar level authorization | |
| 25 | The proposed solution should have option to the live montiroing of the ongoing session | |
| 26 | The proposed solution should have web terminal functionality | |
| 27 | All the required module should be from Same OEM and pre integrated from day one | |
| 28 | The proposed solution must be an industry standard | |
| 29 | The proposed solution have strong password policy creation to ensure securirty of the system | |
| 30 | The proposed solution should support bid directional file transfer feature | |

| | | |
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| 31 | Certification copy for the same to be submitted along with bid "The proposed solution must be an industry standard solution from an OEM that is ISO 20000, ISO 27001:2013, ISO 14001:2015, ISO 9001:2015, ISO 15408-1:2005, & ISO 27034-1:2011 to ensure the quality and security. Certification copy for the same to be submitted along with bid." | |
| 32 | The proposed solution should be secured with single sign-on (SSO) and must have authentication through LDAP. For enhanced security and effectiveness PAM, SSO engine & LDAP solution should be from the Same OEM | |

6.8.13. AV solution

| S/No | Requirement | Comply (Yes/No) |
|------|--|-----------------|
| 1 | Endpoint should have behavioral-based detection technology protects against zero-day file-less attacks that target applications with zeroday or un-patched vulnerabilities | |
| 2 | The solution should Protects against zero-day attacks targeting undiscovered or un-patched application vulnerabilities | |
| 3 | The solution should Detects various memory techniques used in an exploit, such as ROP, HeapSpray, buffer overflow | |
| 4 | Endpoint should protect Shields web browsers, Java/Flash plug-ins, Microsoft Office applications, and PDF Reader | |
| 5 | Simplified management and policy enforcement with Enterprise Management Server | |
| 6 | Endpoint features including compliance, protection, and secure access into a single, modular lightweight client | |
| 7 | The solution should Windows AD Integration helps sync organizations AD structure into EMS so same Ous can be used for endpoint management. | |
| 8 | The proposed system shall be able to queries a real time database of over 100 million + rated websites categorized into 70+ unique content categories. | |
| 9 | Real-time Endpoint Status always provides current information on endpoint activity & security events. | |
| 10 | Should support Endpoint Quarantine to quickly disconnect a compromised endpoint from the network and stop it from infecting other assets. | |
| 11 | Should support Automated Response to detect and isolate suspicious or compromised endpoints without manual intervention | |
| 12 | Vulnerability Dashboard to manage organizations attack surface. | |
| | All vulnerable endpoints are easily identified for administrative action. | |

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| 13 | Solution should have capability to submit unknown files to sandboxing for simulation on real time basis as per sandboxing analysis and revert back to Endpoint security solution to block and clean threats and sandboxing solution. | |
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6.8.14. Backup

| S. No. | Requirement Description | Compliance(Yes/No) |
|--------|--|--------------------|
| 1 | The proposed backup solution should be available on various OS platforms such as Windows, Linux and UNIX platforms. | |
| 2 | The proposed backup solution shall have same GUI across heterogeneous platform to ensure easy administration | |
| 3 | The proposed backup solution has in-built frequency and calendar based scheduling system. | |
| 4 | The proposed backup solution shall also support granular recovery for VMware, Exchange server, etc. | |
| 5 | The proposed backup solution must support at least AES256- bit encryption capabilities. | |
| 6 | The backup software should support priority based backup schedule, missed job execution and Advanced Scheduling option. | |
| 7 | The backup software should be able to recover only critical volumes and later restore other volumes that were backed up in separate sessions | |
| 8 | The backup software should support the parallel backup of VMDK files | |
| 9 | The proposed backup software should support restore a single VM, single file from a VM, a VMDK restore from the same management console for ease of use. | |
| 10 | The backup software should support automated replication/synchronization | |
| 11 | The backup software should support de-duplication device like store once and data domain | |
| 12 | The backup software licenses should be provided for 5 TB capacity and should be scalable for future use | |
| 13 | Warranty - Till project duration | |

7. MANPOWER

| S. No. | Service Description | Level | Qty | No. Of Months |
|--------|--|-------|---|---------------|
| 1 | Network Engineer | L1 | As per solution / customer requirement | 120 |
| 2 | Network Engineer | L2 | | 120 |
| 3 | Security Engineer | L3 | | 120 |
| 4 | Infra Engineer | L3 | | 120 |
| 5 | Server/OS Engineer | L1 | | 120 |
| 6 | Project Coordinator | L3 | | 120 |
| 7 | Program Manager/Sr. Principal Consultant | L4 | | 120 |

8. Proposal Preparation and Submission Cost

8.1. The interested partner is responsible for all costs incurred in connection with participation in this EOI process, including, but not limited to, cost incurred in conduct of informative and other diligence activities, participation in meetings/discussions/presentations, preparation of proposal, in providing any additional information required by RailTel to facilitate the evaluation process or all such activities related to the bid process. RailTel will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. This EOI document does not commit to award a contract or to engage in negotiations. Evaluation will be done on basis of highest offer quoted by the bidder under Clause number 18 - Schedule of Rates SOR Total.

9. Amendment to EOI Document

9.1. At any time prior to the deadline for submission of bids, RailTel, may, for any reason can modify the EOI document by an amendment. All the amendments made in the document would be informed by displaying on RailTel's (www.railtelindia.com) website only. Interested partners are advised to visit the RailTel website on a regular basis to check necessary updates. RailTel also reserves the right to amend the dates mentioned in this EOI for the bid process. RailTel may, at its discretion, extend the last date for receipt of EoI response.

10. Bid Validity Period

10.1. The bids of Interested partners shall remain valid for 180 days from the date of submission of the EOI.

10.2. RailTel may request for an extension of the period of validity. The request and responses there to shall be made in writing through e-mail communication only.

10.3 Any bid received by RCIL after the deadline for submission of bids will be rejected and/or returned unopened to the bidder.

11. Right to Terminate the Process

11.1. RailTel may terminate the EOI process at any time without assigning any reason. RailTel makes no commitments, express or implied, that this process will result in a business transaction with anyone. This EOI does not constitute an offer by RailTel. The interested partner's participation in this process may result in RailTel selecting the INTERESTED PARTNER to engage in further discussions and negotiations toward execution of a contract. The commencement of such negotiations does not, however, signify a commitment by RailTel to execute a contract or to continue negotiations. RailTel may terminate negotiations at any time without assigning any reason.

12. Language of Bid

12.1. The bid prepared by the interested partner and all correspondence and documents relating to the bids exchanged by the bidder and RailTel shall be written in English Language, provided that any printed literature furnished by the Bidder in another language shall be accompanied by an English translation in which case, for purposes of interpretation of the bid, the English translation shall govern. If any supporting documents submitted are in any language other than English, translation of the same in the English language is to be duly attested by the Authorised Signatory of the interested partner.

13. Submission of Bid

13.1. The interested partner should consider any Corrigendum to this EOI document that may have been published before submitting their EOI response. The bid is to be submitted in the mode as mentioned in this EOI document. EOI response submitted in any other mode will not be entertained.

13.2. Interested partners in their own interest are advised to submit the EOI response well in time before the last date and hence to avoid any inconvenience at the last moment.

13.3. An Organization / Interested Partner can submit only 'One EOI Response'. Submission of multiple EOI Response by interested partner(s) may lead to rejection of all of its bid.

14. Rights to Accept / Reject any or all EOI Response

14.1. RailTel reserves the right to accept or reject any EOI Response, and to annul the bidding process and reject all Bids at any time prior to award of the Contract, without thereby incurring any liability to the affected interested partner(s) / INTERESTED PARTNER, or any obligation to inform the affected Bidders of the ground for RailTel's action.

15. Payment Terms

15.1. Payment will be made only after receiving of the payment from the Client and according to the payment terms mentioned in this EOI document.

15.2 All payment/SLA terms shall be in accordance with agreement between RailTel and Client.

15.3 RailTel will make payment to selected firm after receiving payment from customer and on submission of Tax invoice by Firm to RailTel.

15.4 Any penalty/deduction made by customer shall be passed on to the selected firm on actual basis.

15.5 Escalation (if any) shall be applicable every year to cover inflation and other associated costs only if agreed between RailTel and Client and after approval from RailTel's Competent Authority.

15.6 The empaneled partner shall ensure minimum discover margins of RailTel in future for similar orders against this project.

15.7 The quoted price shall be applicable for 10 year period. However the order shall be released on yearly basis depending upon client's Orders. The price may or may not vary basis on the negotiation with the Client.

15.8 Indicative payment terms are as under:

| Service Type | Payment Term |
|---|--|
| One Time Cost for setting up private cloud solution- | One Time Cost (Capex)- 100% amount along with Order after deducting RailTel's margin. |
| Recurring Cost for setting up private cloud solution- | Recurring Cost (Opex)- Balance Yearly advance in 10 installments (payable monthly/quarterly/yearly as per clients payment terms) |

16. Special Terms and conditions

- 16.1 The items under "Capacity BOM for proposed tools", shall be delivered at Customer location. Selected Firm will be responsible for successful Supply, Installation, testing and Commissioning (SITC) of the delivered items. The date of successful SITC shall be treated as Date of Commissioning (DoC) of the project.
- 16.2 Selected firm will Provide O&M after successful commission of Appliance, hardware & software items initially for the period of three years which can be further extended as per requirement from RailTel's Customer.
- 16.3 The items mentioned under "Capacity BOM for proposed tools", shall become property of RailTel/Customer and will be handed over to RailTel/Customer after completion of project duration as per order of the customer.
- 16.4 Necessary manpower to be deployed by the bidder at the site.
- 16.5 **Delivery Timelines:** 08-10 Weeks from the date of placing Work Order.
- 16.6 **Price Validity for Annual Recurring Cost shall be for 10 years from the date of issue of Order.**

17. Other Terms and Condition

1. Bidders are requested to quote their best commercial (in %).
2. Unless otherwise specified, all prices quoted must remain firm except for statutory variation in taxes and duties during the contractual delivery period. Any increase in taxes and duties after the expiry of the delivery period will be charged to the vendor's account.
3. The offer should be typewritten, and any correction or overwriting should be initialed. Rates should be indicated in words and figures.
4. A sealed offer in an envelope superscribing the tender enquiry number and due date of opening must be sent by Registered or Speed Post or dropped in the Tender Box specified for the purpose. Offers received after the specified date and time are liable to be rejected.
5. Offer should be valid for a minimum period of 180 days from the date of issue of Customer PO to RailTel.
6. Printed conditions on the back side of the offers will be ignored.
7. Any increase in taxes and duties after the expiry of the delivery period will be charged to the supplier's account. This will be without prejudice to RCIL's rights for any other action, including termination.
8. RCIL shall have the right to terminate the contract by giving 30 days' notice without assigning any reasons thereof. However, in the event of any breach of terms of the contract, RCIL will have right to terminate the contract by written notice to the Seller.
9. FORCE MAJEURE: Any delay or failure to perform the contract by either party caused by acts of God or acts of Government or any direction or restriction imposed by Government of India which may affect the contract or the public enemy or contingencies like strikes, riots etc. shall not be considered as default for the performance of the contract or give rise to any claim for damage. Within 7 days of occurrence and cessation of the event(s), the other party shall be notified. Only those events of force majeure which impedes the execution of the contract at the time of its occurrence shall be taken into cognizance.
10. In case of any dispute or difference arising out of the contract which cannot be resolved mutually between RCIL and vendor, it shall be referred to a Sole Arbitrator to be appointed by the CMD, RCIL.

11. The Arbitration and Conciliation Act, 1996 and rules made there under shall apply to the Arbitration Proceedings.
12. The contract shall be governed by and construed according to the laws in force in India and subject to exclusive jurisdiction of the Courts of Delhi only.
13. RCIL may place the order in full or partial manner based on customer requirement.

18. Schedule of Rates (SOR)

| S No. | Item Name | Unit | Quoted % |
|-------|------------------------------|------|----------|
| 1 | RailTel's PMC Margin/Charges | In % | |

% in words: _____

19. NOT USED

20. Details of Commercial Bid / Financial Bid

20.1. Interested partner should submit commercial bid strictly as per the format mentioned at Annexure-06 of this EOI document or subsequent corrigendum (if any).

20.2. The rates mentioned in the commercial bid of the interested partner will form basis of commercial transaction between RailTel and bidder.

20.3. For every commercial finalised by RailTel with the client, the selected bidder shall ensure providing complete techno-commercial proposal to RailTel for onward submission to the Client. In cases of negotiation, the bidder shall be bound to accept the commercials with minimum margin to RailTel. In this regard, the decision by RailTel shall be final.

20.5. It is also possible that customer may surrender some or all of the quantities of service items ordered to RailTel during the contract period and accordingly the contractual amount between RailTel and interested partner shall be considered.

20.6. In addition to the Payment Terms, all other Contractual Terms will also be on as per the conditions settled between RailTel and the Client.

21. Duration of the Contract Period

21.1. The contract duration shall be the same as of the customer's contract duration with RailTel until otherwise terminated earlier, subject to the successful participation of RailTel. The contract duration can be renewed/extended by RailTel at its discern in case the customer extends/renews services with RailTel by virtue of extending/renewing / new issuance of one or more Purchase Order(s) placed by the Client to RailTel.

22. Restrictions on 'Transfer of Agreement'

22.1. The interested partner shall not assign or transfer its right in any manner whatsoever under the contract / agreement to a third party or enter into any agreement for sub-contracting and/or partnership relating to any subject matter of the contract / agreement to any third party either in whole or in any part i.e. no sub-contracting / partnership / third party interest shall be created.

23. Suspension, Revocation or Termination of Contract / Agreement

23.1. RailTel reserves the right to suspend the operation of the contract / agreement, at any time, due to change in its own license conditions or upon directions from the competent government authorities, in such a situation, RailTel shall not be responsible for any damage or loss caused or arisen out of aforesaid action. Further, the suspension of the contract / agreement will not be a cause or ground for extension of the period of the contract / agreement and suspension period will be taken as period spent. During this period, no charges for the use of the facility of the selected partner shall be payable by RailTel.

23.2. RailTel may, without prejudice to any other remedy available for the breach of any conditions of agreements, by a written notice of Three (03) month issued to the selected partner , terminate/or suspend the contract / agreement under any of the following circumstances:

- a) The selected partner failing to perform any obligation(s) under the contract / agreement.
- b) The selected partner failing to rectify, within the time prescribed, any defect as may be pointed out by RailTel.
- c) Non adherence to Service Level Agreements (SLA) which RailTel has committed to client for the pertinent tender.
- d) The selected partner going into liquidation or ordered to be wound up by competent authority.
- e) If the selected partner is wound up or goes into liquidation, it shall immediately (and not more than a week) inform about occurrence of such event to RailTel in writing. In that case, the written notice can be modified by RailTel as deemed fit under the circumstances. RailTel may either decide to issue a termination notice or to continue the agreement by suitable modifying the conditions, as it feels fit under the circumstances.

- f) It shall be the responsibility of the selected partner to maintain the agreed Quality of Service, even during the period when the notice for surrender/termination of contract / agreement is pending and if the Quality of Performance of Solution is not maintained, during the said notice period, it shall be treated as material breach liable for termination at risk and consequent of selected partner.
- g) Breach of non-fulfillment of contract / agreement conditions may come to the notice of RailTel through complaints or as a result of the regular monitoring. Wherever considered appropriate RailTel may conduct an inquiry either suo-moto or on complaint to determine whether there has been any breach in compliance of the terms and conditions of the agreement by the successful bidder or not. The selected partner shall extend all reasonable facilities and shall endeavor to remove the hindrance of every type upon such inquiry. In case of default by the selected partner in successful implementation and thereafter maintenance of services / works as per the conditions mentioned in this EOI document, the amount of pending/future payments of selected partner available with RailTel will be forfeited.

24. Dispute Settlement

24.1. In case of any dispute concerning the contract/agreement, both the selected partner and RailTel shall try to settle the same amicably through mutual discussion/negotiations. Any unsettled dispute shall be settled in terms of the Indian Act of Arbitration and Conciliation 1996 or any amendment thereof. The place of Arbitration shall be New Delhi.

24.2. The arbitral tribunal shall consist of the Sole Arbitrator. The arbitrator shall be appointed by the Chairman & Managing Director (CMD) of RailTel Corporation of India Ltd.

24.3. All arbitration proceedings shall be conducted in English.

25. Governing Laws

25.1. The contract shall be interpreted in accordance with the laws of India. The courts at New Delhi shall have exclusive jurisdiction to entertain and try all matters arising out of this contract.

26. Statutory Compliance

26.1. During the tenure of this Contract nothing shall be done by selected partner in contravention of any law, act and/ or rules/regulations, there under or any amendment thereof and shall keep RailTel indemnified in this regard.

26.2. The Bidder shall comply and ensure strict compliance by his/her employees and agents of all applicable Central, State, Municipal and Local laws and Regulations and undertake to indemnify RailTel, from and against all levies, damages, penalties and payments whatsoever as may be imposed by reason of any breach or violation of any law, rule, including but not limited to the claims against RailTel or its Customer under Employees Compensation Act, 1923, The Employees Provident Fund and Miscellaneous Provisions Act, 1952, The Contract Labour (Abolition and Regulation) Act 1970, Factories Act, 1948, Minimum Wages Act and Regulations, Shop and Establishment Act and Labour Laws which would be amended/modified or any new act if it comes in force whatsoever, and all actions claim and demand arising therefrom and/or related thereto.

27. Intellectual Property Rights

27.1. Each party i.e. RailTel and selected partner, acknowledges and agree that the other party retains exclusive ownership and rights in its trade secrets, inventions, copyrights, and other intellectual property and any hardware provided by such party in relation to this contract / agreement.

27.2. Neither party shall remove or misuse or modify any copyright, trade mark or any other proprietary right of the other party which is known by virtue of this EoI and subsequent contract in any circumstances.

28. Severability

28.1. In the event any provision of this EOI and subsequent contract with selected partner is held invalid or not enforceable by a court of competent jurisdiction, such provision shall be considered separately and such determination shall not invalidate the other provisions of the contract and Annexure/s which will be in full force and effect.

29. Force Majeure

29.1. If during the contract period, the performance in whole or in part, by other party, of any obligation under this is prevented or delayed by reason beyond the control of the parties including war, hostility, acts of the public enemy, civic commotion, sabotage, Act of State or direction from Statutory

Authority, explosion, epidemic, quarantine restriction, strikes and lockouts (as are not limited to the establishments and facilities of the parties), fire, floods, earthquakes, natural calamities or any act of GOD (hereinafter referred to as EVENT) , provided notice of happenings of any such event is given by the affected party to the other, within twenty one (21) days from the date of occurrence thereof, neither party shall have any such claims for damages against the other, in respect of such non-performance or delay in performance. Provided service under this contract shall be resumed as soon as practicable, after such EVENT comes to an end or ceases to exist.

29.2. In the event of a Force Majeure, the affected party will be excused from performance during the existence of the force Majeure. When a Force Majeure occurs, the affected party after notifying the other party will attempt to mitigate the effect of the Force Majeure as much as possible. If such delaying cause shall continue for more than sixty (60) days from the date of the notice stated above, the party injured by the inability of the other to perform shall have the right, upon written notice of thirty (30) days to the other party, to terminate this contract. Neither party shall be liable for any breach, claims, and damages against the other, in respect of non-performance or delay in performance as a result of Force Majeure leading to such termination.

30. Indemnity

30.1. The INTERESTED PARTNER agrees to indemnify and hold harmless RailTel, its officers, employees and agents (each an "Indemnified Party") promptly upon demand at any time and from time to time, from and against any and all losses, claims, damages, liabilities, costs (including reasonable attorney's fees and disbursements) and expenses (collectively, "Losses") to which the Indemnified party may become subject, in so far as such losses directly arise out of, in any way relate to, or result from :

- a) Any mis-statement or any breach of any representation or warranty made by INTERESTED PARTNER or
- b) The failure by the INTERESTED PARTNER to fulfill any covenant or condition contained in this contract by any employee or agent of the Bidder. Against all losses or damages arising from claims by third Parties that any Deliverables (or the access, use or other rights thereto), created by INTERESTED PARTNER pursuant to this contract, or any equipment, software, information, methods of operation or other intellectual property created by INTERESTED PARTNER pursuant to this contract, or the SLAs (i) infringes a copyright, trade mark, trade design enforceable in India, (ii) infringes a patent issues in India, or (iii) constitutes misappropriation or unlawful disclosure or used of another Party's trade secrets under the laws of India (collectively, "Infringement Claims"); or
- c) Any compensation / claim or proceeding by ECT or any third party against RailTel arising out of any act, deed or omission by the INTERESTED PARTNER or

- d) Claim filed by a workman or employee engaged by the INTERESTED PARTNER for carrying out work related to this agreement. For the avoidance of doubt, indemnification of Losses pursuant to this section shall be made in an amount or amounts sufficient to restore each of the Indemnified Party to the financial position it would have been in had the losses not occurred.

30.2. Any payment made under this contract to an indemnity or claim for breach of any provision of this contract shall include applicable taxes.

31. Limitation of Liability towards RailTel

31.1. The INTERESTED PARTNER liability under the contract shall be determined as per the Law in force for the time being. The INTERESTED PARTNER shall be liable to RailTel for loss or damage occurred or caused or likely to occur on account of any act of omission on the part of the INTERESTED PARTNER and its employees (*direct or indirect*), including loss caused to RailTel on account of defect in goods or deficiency in services on the part of INTERESTED PARTNER or his agents or any person / persons claiming through under said INTERESTED PARTNER, However, such liability of the INTERESTED PARTNER shall not exceed the total value of the contract.

31.2. This limit shall not apply to damages for bodily injury (including death) and damage to real estate property and tangible personal property for which the INTERESTED PARTNER is legally liable.

32. Confidentiality cum non-disclosure

32.1. The Receiving Party agrees that it will not disclose to third party/parties any information belonging to the Disclosing Party which is provided to it by the Disclosing Party before, during and after the execution of this contract. All such information belonging to the Disclosing Party and provided to the Receiving Party shall be considered Confidential Information. Confidential Information includes prices, quotations, negotiated issues made before the execution of the contract, design and other related information. All information provided by Disclosing Party to the Receiving Party shall be considered confidential even if it is not conspicuously marked as confidential.

32.2. Notwithstanding the foregoing, neither Party shall have any obligations regarding non-use or non-disclosure of any confidential information which:

- a) Is already known to the receiving Party at the time of disclosure:
- b) Is or becomes part of the public domain without violation of the terms hereof;

- c) Is shown by conclusive documentary evidence to have been developed independently by the Receiving Party without violation of the terms hereof:
- d) Is received from a third party without similar restrictions and without violation of this or a similar contract.

32.3. The terms and conditions of this contract, and all annexes, attachments and amendments hereto and thereto shall be considered Confidential Information. No news release, public announcement, advertisement or publicity concerning this contract and/or its contents herein shall be made by either Party without the prior written approval of the other Party unless such disclosure or public announcement is required by applicable law.

32.4. Notwithstanding the above, information may be transmitted to governmental, judicial, regulatory authorities, if so, required by law. In such an event, the Disclosing Party shall inform the other party about the same within 30 (thirty) Days of such disclosure.

32.5. This Confidentiality and Non- Disclosure clause shall survive even after the expiry or termination of this contract.

33. Assignment

33.1. Neither this contract nor any of the rights, interests or obligations under this contract shall be assigned, in whole or in part, by operation of law or otherwise by any of the Parties without the prior written consent of each of the other Parties. Any purported assignment without such consent shall be void. Subject to the preceding sentences, this contract will be binding upon, inure to the benefit of, and be enforceable by, the Parties and their respective successors and assigns.

34. Insurance

34.1. The INTERESTED PARTNER agrees to take insurances to cover all the elements of the project under this EOI including but not limited to Manpower, Hardware, Software etc.

35. Exit Management

35.1. Exit Management Purpose

- a) This clause sets out the provision, which will apply during Exit Management period. The parties shall ensure that their respective associated entities carry out their respective obligation set out in this Exit Management Clause.
- b) The exit management period starts, in case of expiry of contract, at least 03 months prior to the date when the contract comes to an end or in case of termination contract, on the date when the notice of termination is sent to the INTERESTED PARTNER. The exit management period ends on the date agreed upon by RailTel or Three (03) months after the beginning of the exit management period, whichever is earlier.

35.2. Confidential Information, Security and Data: INTERESTED PARTNER will promptly, on the commencement of the exit management period, supply to RailTel or its nominated agencies the following (*if asked by RailTel in writing*) :

- a) Information relating to the current services rendered and performance data relating to the performance of the services; documentation relating to the project, project's customized source code (*if any*); any other data and confidential information created as part of or is related to this contract;
- b) All other information (including but not limited to documents, records and agreements) relating to the services reasonably necessary to enable RailTel and its nominated agencies, or its replacing vendor to carry out due diligence in order to transition the provision of the services to RailTel or its nominated agencies, or its replacing vendor (as the case may be).

35.3. Employees : Promptly on reasonable request at any time during the exit management period, the INTERESTED PARTNER shall, subject to applicable laws, restraints and regulations (including in particular those relating to privacy) provide RailTel a list of all employees (with job titles and communication address), dedicated to providing the services at the commencement of the exit management period; To the extent that any Transfer Regulation does not apply to any employee of the INTERESTED PARTNER, RailTel or the replacing vendor may make an offer of contract for services to such employees of the INTERESTED PARTNER and the INTERESTED PARTNER shall not enforce or impose any contractual provision that would prevent any such employee from being hired by RailTel or any replacing vendor.

35.4. Rights of Access to Information: Besides during the contract period, during the exit management period also, if asked by RailTel in writing, the INTERESTED PARTNER shall be obliged to provide an access of information to RailTel and / or any Replacing Vendor in order to make an inventory of the Assets (including hardware / software / active / passive), documentations, manuals, catalogues, archive data, Live data, policy documents or any other related material.

Note: RailTel at its sole discern may not enforce any or all clauses / sub-clauses under the 'Exit Management' clause due to administrative convenience or any other reasons as deemed fit by RailTel.

36. Waiver

36.1. Except as otherwise specifically provided in the contract, no failure to exercise or delay in exercising, any right, power or privilege set forth in the contract will operate as a waiver of any right, power or privilege.

37. Changes in Contract Agreement

37.1. No modification of the terms and conditions of the Contract Agreement shall be made except by written amendments signed by the both INTERESTED PARTNER and RailTel.

Annexure - 01**EOI COVER LETTER**
(On Organization Letter Head)

Bid Ref No. :

Date:

To,

General Manager (BD),
RailTel Corporation of India Limited,
Plate-A, 6th Floor, Office Block Tower-2,

East Kidwai Nagar, New Delhi - 110023

Ref : EOI No. RCIL/EoI/CO/BD/2024/XXX Dated 9th Apr 2024

Dear Sir,

1. I, the undersigned, on behalf of M/s, having carefully examined the referred EOI offer to participate in the same, in full conformity with the said EOI and all the terms and conditions thereof, including corrigendum issued till last date of submission of EOI.
2. I agree to abide by this Proposal, consisting of this letter, Technical and Commercial Proposals, for a period of 120 days from the date fixed for submission of Proposals as stipulated in the EOI and modifications resulting from contract negotiations, and it shall remain binding upon us and may be accepted by you at any time before the expiration of that period.
3. I acknowledge that the Authority will be relying on the information provided in the Proposal and the documents accompanying the Proposal for selection of the Commercially Suitable Partner (INTERESTED PARTNER) for the aforesaid Service, and we certify that all information provided therein is true and correct; nothing has been omitted which renders such information misleading; and all documents accompanying the Proposal are true copies of their respective originals.
4. I undertake, if our Bid is accepted, to commence our services as per scope of work as specified in the contract document.
5. Until a formal Purchase Order or Contract is prepared and executed, this Bid and supplement / additional documents submitted (if any), together with your written acceptance thereof in your notification of award shall constitute a binding contract between us.

Signature of Authorised Signatory

Name
Designation

Annexure – 02

Compliance to Rule 144 (xi) of GFR, 2017 *including amendments till date*
(On Organization Letter Head)

Bid Ref No. :

Date:

To,

General Manager (BD),
RailTel Corporation of India Limited,

Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi - 110023

Ref : EOI No. EOI No. RCIL/EoI/CO/BD/2024/XXXXX Dated 9th Apr 2024

Dear Sir,

I, the undersigned, on behalf of M/s , have read the clause/para regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries.

(a) I certify that M/s is not from such a country and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. I also certify that M/s will not offer any products / services of entity from such countries unless such entity is registered with the Competent Authority.

OR (Strikeout either (a) or (b), whichever is not applicable)

(b) I certify that M/s is from such a country and has been registered with the Competent Authority. I also certify that M/s has product/services of entity from such countries and these entity / entities are also registered with the Competent Authority.

(Where applicable, evidence of valid registration by the Competent Authority is to be attached with the bid.)

I hereby certify that M/s fulfills all requirements in this regard and is eligible to be considered.

I hereby acknowledge that in the event of acceptance of my bid on above certificate and if the certificate is found to be false at any stage, the false certificate would be a ground for immediate termination of contract and further legal action in accordance with the Law.

Signature of Authorised Signatory

Name
Designation

Annexure – 03

Undertaking for Non-Blacklisting & Arbitration Case
(On Organization Letter Head)

Bid Ref No.:

Date:

To,

General Manager (BD),
RailTel Corporation of India Limited,

Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi - 110023

Ref : EOI No. EOI No. RCIL/EoI/CO/BD/2024/XXXXXX Dated 9th Apr 2024

Dear Sir,

I, the undersigned, on behalf of M/s , hereby submits that

- 1. We are not blacklisted by any State / Central Government Ministry / Department / Corporation / Autonomous Body at the time of submission of bid.
- 2. We are not having any ongoing or past, arbitration case(s) with RailTel at the time of submission of bid.

I hereby acknowledge that in the event of acceptance of bid of M/s on above undertaking and if the undertaking is found to be false at any stage, the false undertaking would be a ground for immediate termination of contract and further legal action in accordance with the Law, including but not limited to the encashment of Bank Guarantee related to Empanelment and Performance Bank Guarantee (PBG), as available with RailTel, related to this EoI.

Signature of Authorised Signatory

Name
Designation

Annexure – 04

CHECKLIST OF DOCUMENTS FOR TECHNICAL BID

| S. No. | Document |
|--------|---|
| 1 | EOI Document Copy including Corrigenda (if any), as Downloaded from RailTel’s Website |
| 2 | EOI Cover Letter (<i>Annexure-01</i>) |
| 3 | Copy of RailTel's Empanelment Letter |
| 4 | Details of NEFT/RTGS towards EOI Document Fees |

| | |
|----|---|
| 5 | Details of NEFT/RTGS towards EOI-EMD |
| 6 | Compliance to Rule 144 (xi) of GFR, 2017 (<i>Annexure-02</i>) |
| 7 | Undertaking for Non-Blacklisting & Arbitration Case (<i>Annexure-03</i>) |
| 8 | Documents as asked at Clause No. 6.7, above |
| 9 | Copy of Permanent Account Number (PAN) & Taxpayer Identification Number (TAN) |
| 10 | Copy of Goods and Service Tax Identification Number (GSTIN) |

Note :

1. The technical bid should have a 'Index' at the starting and all pages of bid should be serially numbered and should be traceable as per the 'Index'.
2. All the submitted documents should be duly stamped and signed by the Authorized Signatory at each page.
3. The above checklist is indicative only. RailTel may ask for additional documents from the bidders, as per the requirement.

Annexure – 05

Commercial Bid
(*On Organization Letter Head*)

Bid Ref No. :

Date:

To,

General Manager (BD),
RailTel Corporation of India Limited,

Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi - 110023

Ref : EOI No. EOI No. RCIL/EoI/CO/BD/2024/CUSTOMER-GIS-01 Dated 9th Apr 2024

Schedule of Rates (SOR)

| S No. | Item Name | Unit | Quoted % |
|-------|------------------------------|------|----------|
| 1 | RailTel’s PMC Margin/Charges | In % | |

% in words: _____

Note :

- 1. Margin to be quoted in percentage.
- 2. The commercial bid should be neatly typed and any cutting, overwriting or manual entry may lead to rejection of bid
- 3. The H-1 (INTERESTED PARTNER) will be decided based on highest Margin quoted by the bidder.
- 4. The percentage should be mentioned in words also, the value mentioned in words will be the final in case of any misprint.
- 5. Each and every page of this commercial bid should be duly signed and stamped.

PROFORMA FOR PERFORMANCE BANK GUARANTEE
(On Stamp Paper of ₹ One Hundred)

To,

General Manager (BD),
RailTel Corporation of India Limited,
Plate-A, 6th Floor, Office Block Tower-2,
East Kidwai Nagar, New Delhi - 110023

1. In consideration of the RailTel Corporation of India Limited (CIN : L64202DL2000GOI107905), having its registered office at Plate-A, 6th Floor, Office Block Tower-2, East Kidwai Nagar, New Delhi – 110023 (herein after called "RailTel") having agreed to exempt (CIN :) having its registered office at (hereinafter called "the said Contractor") from the demand, under the terms and conditions of Purchase Order No. dated made between RailTel and for (hereinafter called "the said Agreement") of security deposit for the due fulfilment by the said Contractor of the terms and condition contained in the said Agreement, or production of a Bank Guarantee for Rs. (Rs. Only). We (indicate the name and address and other particulars of the Bank) (hereinafter referred to as 'the Bank') at the request of contractor do hereby undertake to pay RailTel an amount not exceeding Rs. (Rs Only) 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 of any of the terms or conditions contained in the said Agreement.

2. We, the Bank 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 by the said Contractor of any of terms or conditions contained in the said Agreement 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 (Rs. Only).

3. We, the Bank undertake to pay the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor 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 shall have no claim against us for making such payment.

4. We, the 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 an 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 and accordingly discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before
. We shall be discharged from all liability under this Guarantee thereafter.

5. We, the Bank further agree with the RailTel that the RailTel shall have 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 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 or for any forbearance, act or omission on the part of RailTel or any indulgence by the RailTel to the said Contractor 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 discharge due to the change in the constitution of the Bank or the Contractor.

(..... indicate the name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of RailTel in writing.

Dated the Day of 2023 for (Name of Bank)

In the presence of Witnesses:

1. Signature With Date
Name

2. Signature With Date
Name