



रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड
(भारत सरकार का एक उपक्रम)

RAILTEL CORPORATION OF INDIA LIMITED
(A Govt. of India Undertaking)
(CIN: U64202DL2000GOI107905)

ELECTRONIC TENDER DOCUMENT

FOR

Supply, Installation, Integration, Customization, Testing, Training & Commissioning of AAA and B/OSS Infrastructure for Wi-Fi and Broadband Services for RailTel”

OPEN TENDER

E-निविदा संख्या RAILTEL/TENDER/OT/CO/DNM/2017-18/AAA and BSS&OSS/389

Dated: 19.05.2017

OPEN E-TENDER NO. RAILTEL/TENDER/OT/CO/DNM/2017-18/AAA and BSS&OSS/389 Dated: 19.05.2017

निविदा दस्तावेज की कीमत: रु. 2,828/- (टैक्स सहित)
Cost of Tender Document: Rs. 2,828/-(Including Taxes)

(Two Packet System)

OPEN TENDER NOTICE**OPEN E-TENDER NO. RAILTEL/TENDER/OT/CO/DNM/2017-18/AAA and BSS&OSS/389 Dated: 16.05.2017**

RailTel Corporation of India Ltd. invites E-Tenders in Two Packet (Part I –Credential/ Techno commercial Bid and Part II - Price Bid) System for **“Supply, Installation, Integration, Customization, Testing, Training & Commissioning of AAA and B/OSS Infrastructure for Wi-Fi and Broadband Services for RailTel”**.

The details are as under: -

a)	Start Date for downloading the Tender	19.05.2017
b)	Last date for sending the queries	30.05.2017
c)	Pre-Bid Conference	15:00 hrs of 01.06.2017
d)	Closing Date for downloading the Tender	Upto 18:00 hrs of 12.06.2017
e)	Closing date for Submission of E-Bids	Upto 15:00 hrs of 13.06.2017 (Online)
f)	Date of opening of E-Bids	At 15:30 hrs of 13.06.2017 (Online)
g)	Earnest Money Deposit (EMD) #	Rs. 5 Lakhs *
h)	Cost of Tender Document #	Rs. 2,828/- * (Including Taxes)
* These will be payable by Bank Draft in favour of RailTel Corporation of India Limited, New Delhi.		

Eligible MSEs/NSIC are exempted from cost of Tender Documents and EMD, more details are given in clause 22.7, chapter-4A.

Note: Tender Notice and Tender Document are available on RailTel’s website and can be downloaded from www.railtelindia.com or from the e-Tendering portal <https://www.tcil-india-electronictender.com>. For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL’s e-portal. All future Information viz. corrigendum /addendum/ amendments etc. for this Tender shall be posted on the e-Tendering Portal only. Printed copy of Tender document will not be sold from RailTel office.

The bidder shall bear all costs associated with the preparation, submission/participation in the bid. Purchaser in no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process.

For RailTel Corporation of India Ltd.

(A.K.Sablania)
Group General Manager/DNM

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RAILTEL

CHAPTER-1

OFFER LETTER

RailTel Corporation of India Ltd.
Plot No. 143, Institutional Area,
Sector-44, Gurgaon-122003

1. I/We _____ have read the various conditions detailed in tender documents attached here to and hereby agree to ABIDE BY THE SAID CONDITIONS. I/We also agree to keep this offer open for acceptance for a period of **180 days** from the date of opening of tender and in default thereof, I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to supply various equipment at the rates quoted in the attached schedules and hereby bind myself/ourselves to complete the Work within **24 calendar weeks** from the date of issue of Purchase Order/LOA. I/We also hereby agree to abide by the Various Conditions of Contract and to carry out the supplies according to the Specifications for materials and works laid down by the RailTel.
2. A sum of **Rs. 5,00,000/- (Rs. Five lacs) as an Account Payee Demand Draft in favour of RailTel Corporation India Ltd.** No. _____ dated _____ issued by _____ is herewith forwarded as “Earnest Money”. The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if, I/We withdraw or modify the offer within validity period or do not deposit the security deposit (Performance Bank Guarantee) within **15 days** after issue of Purchase Order/LOA.

SIGNATURE OF SUPPLIER (S)

Date:

CONTRACTOR (S) ADDRESS

SIGNATURE OF WITNESS:

1.

2.

CHAPTER- 2

SCHEDULE OF REQUIREMENT

SN	Description	Unit	Qty	Unit Rate		Total cost	
				In Fig	In Words	In Fig	In Words
1	2	3	4	5	6	7	8
A	Schedule of Supplies						
1	Supply of Hardware Items complete with installation materials and all other accessories, manuals etc. for implementation of AAA and B/OSS Infrastructure for Wi-Fi and Broadband Services. Wi-Fi Core System given in the tender document with 3 years warranty.	Lot	1				
2	Supply of Software Items developed by OEM as per specifications given in the tender document.	1 lakh concurrent Users	1				
3	Supply of Third Party Software Items for implementation of AAA and B/OSS Infrastructure for Wi-Fi and Broadband Services. Wi-Fi Core System as per specifications given in the tender document.	Lot	1				
4	Any other hardware item, as may be required for commissioning the AAA and B/OSS Infrastructure for Wi-Fi and Broadband Services.	Lot	1				
5	Any other software item, as may be required for commissioning the AAA and B/OSS Infrastructure for Wi-Fi and Broadband Services.	Lot	1				
6	Managable L3 switch with 48 port including four 10G Ethernet port, dual AC power supply	No.	3				
	Total Cost of Schedule of Supplies (A)						
B	Schedule of Services						
6	Charges for Installation of Hardware items.	Lot	1				
7	Charges for Installation of Software items.	Lot	1				
8	Charges for Implementation, Customizations, Integration (with other Systems) & UAT.	Lot	1				

SN	Description	Unit	Qty	Unit Rate		Total cost	
				In Fig	In Words	In Fig	In Words
1	2	3	4	5	6	7	8
9	Onsite admin & user training charges.	Man Days	10				
10	Onsite O&M training charges of personnel during execution and warranty period.	Man Days	10				
11	Cost for Support Engineer per annum for 5 years as per scope given in clause 6.1, Annexure-C	1	5				
12	AMC charges per annum for 2 years after 3 years of warranty period as percentage of overall cost of hardware material covered in Schedule of Supplies item no. 1 & 4 above, as per the terms & conditions of tender document.	% of Cost of supplies per year	2				
13	AMC charges per annum for 4 years after FAC as percentage of overall cost of software items covered in Schedule of Supplies item no. 2 above, as per the terms & conditions of tender document.	% of Cost of supplies per year	5				
14	AMC charges per annum for 4 years after FAC as percentage of overall cost of third party software items covered in Schedule of Supplies item no. 3 & 5 above, as per the terms & conditions of tender document.	% of Cost of supplies per year	5				
	Total Cost of Schedule of Services (B)						
	Total Value of Schedule of Supplies (A) & Schedule of Services (B)						
	Total Value of SOR in Words:						

NOTE:

I	a) Unit rate quoted against Schedule of Requirement (SOR) above should be CIP destination inclusive of all duties, taxes, insurance and freight etc (with break-up as per proforma attached as Annexure- A & B in Chapter-7), Octroi will be payable extra at actual on production of proof of payment. However delivery within Octroi limits to be done only with prior approval of RailTel. The materials as per SOR are required to be delivered within the delivery period as indicated in Bid Data Sheet (BDS, Chapter 5) to the sites as decided by the RailTel.
	b) It shall be the responsibility of Tenderer to transport the equipment to site for the Installation & Commissioning. Charges for the same should be included in the related SOR Items. Materials not installed / not to be installed need to be shipped to location as

	decided by RailTel.				
II	Tenderer to give the detailed break up of common units/cards/modules/backplane/Fan Tray unit/Softwares/Software licensing etc. for building up the SOR items 1 to 6. Tenderer must also furnish unit rate of all possible HW/SW/interfaces/modules/components/cards/SFPs/XFPs/ etc which the offered system can support, but not ordered by RailTel. These will form part of the Rate Contract.				
III	Tenderers should submit the configuration of each type of equipment indicating quantities of various modules/ sub modules/ cards/ sub racks including the vacant slots in the sub racks/ chassis for expansion.				
IV	<p>a) Against SOR item no. 1, hardware line items to be quoted for main site, DR site separately.</p> <p>b) Primary site has to work in HA (active-passive) mode and DR site has to be in standalone mode with hot standby configuration (w.r.t. primary site) at RailTel Data Centers detailed in BDS (Chapter-5).</p> <p>c) Requirement of DR site is to meet business contingencies hence specifications of DR site need to be stripped down for vanilla offering to meet critical and important components. The DR must sync with Primary site in every 30 minutes (or lesser) to avoid data loss. Every 6 months they have to go for DR drill and RPO = 30 min and RTO = 1 hr has to be maintained</p>				
V	Tenderer should submit the soft copy (Word/Excel/PDFs format) of offer. Bill of Material (BOM) must be uploaded in PDF as well as Excel format.				
VI	Tenderer should also offer rates of any other items against SOR item 4 & 5, if required.				
VII	<p>Following Sizing Parameters should be used for preparation/quoting of Bill of Material/Hardware for above SOR:</p> <table> <tr> <td>a) Named of Concurrent Users</td><td>1 Lakhs</td></tr> <tr> <td>b) Number of Subscribers</td><td>5 Lakhs</td></tr> </table>	a) Named of Concurrent Users	1 Lakhs	b) Number of Subscribers	5 Lakhs
a) Named of Concurrent Users	1 Lakhs				
b) Number of Subscribers	5 Lakhs				
VIII	<ol style="list-style-type: none"> 1. RailTel plans to procure 30% of above mentioned License quantities immediately. 2. The balance quantity in lots of minimum 5% each in due course of the contract depending upon the implementation and commissioning of the Station and Universities of RailTel as per the progress of the Project. 3. Octroi/entry tax will be paid extra on production of documentary proof for the same. Prior approval of consignee shall be taken before paying the duties. 4. Installed Hardware should support 100% of the capacities requirements above from Day 1 5. Railtel has working Rate Contract of the Hardware. The Hardware can be procured through the Railtel's rate contract in case the quoted rates are higher 				



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CHAPTER-3

A. INTRODUCTION

- 1.1 RailTel Corporation of India Limited, a Public Sector Undertaking under the Ministry of Railways, Govt. of India, is a national telecom service provider having NLD and ISP licenses and have built nation-wide optical fiber network. RailTel's objective is to create a nation-wide broadband telecom and multimedia network.
- 1.2 RailTel Corporation, a "Mini-Ratna (Category-1)" PSU, is amongst the largest neutral telecom infrastructure providers in India with an extensive Optic Fiber network on an exclusive Right of Way (RoW) across the nation's Railway route.
- 1.3 The Indian Railways traverse over 63,000 RKM, connecting over 7000 locations. The network provides connectivity to small stations at every 8-10 kms and major stations at every 50- 60 kms which are mostly located centrally at commercial / residential hubs. RailTel has created a robust OFC-based network, facilitating installation of Point of Presence at over 4500 locations.
- 1.4 The OFC network of RailTel has a layered architecture with mesh/ring topology to support route redundancy. The aggregation layer is supported on multiple rings of STM-64/16 system; and the Core network on high-capacity DWDM system. The network provides bandwidth options of various granularities going up to n x 10G & n x 100G. RailTel has installed a MPLS network with PoPs in all major cities to support various IP-enabled services across 4500 locations.
- 1.5 The OFC based access network created by RailTel at important commercial hubs of 100 cities in the country enables delivery of services at doorstep of enterprises.
- 1.6 Equipped with an ISO 9001:2010, ISO 20000 & ISO/IEC 27001:2005 certification, RailTel's wide gamut of managed telecom services on offer to Indian Telecom market includes Managed data services, lease lines, MPLS based IP-VPN, Broadband & Internet services, NGN-based voice carriage services, Tower co-location, Data Center, Tele-presence, Railwire, Wi-Fi, Consultancy and ICT/ system integration.
- 1.7 RailTel's services extend to major Telecom Operators, Internet Service Providers, MSOs, MNCs, Enterprises, Defence & Strategic organizations, Banks, Government Institutions/ Departments, Educational Institutions/ Universities etc.
- 1.8 The rich and varied experience of RailTel in Telecom & IT domains is much in demand and is selected for implementation of key Government projects viz, National Knowledge Network (NKN), National Optical Fiber Network (NOFN) and North East OFC project under USOF scheme.
- 1.9 Purpose of this RFP:**
 - 1.9.1 To implement centralised Core solution in Data Centre which will support following users:-
 1. Subscribers from MHRD universities which are approximately 5 lakhs subscribers and 1 lakh concurrent users.

2. 200 stations Wi-Fi and USO funds with a concurrency of hundreds from 50 to 100 users which results into 20000 subscribers.
 3. Future expansion under the same deployment for additional stations, universities ,enterprise customers and public HotSpot Creations .
- 1.9.2 RailTel intends to select bidder for supply, installation, configuration, operations and maintenance of AAA & B/OSS infrastructure for Wi-Fi Services at RailTel Data Centre(s) across India in DC and DR fashion.



CHAPER-3

B. SCOPE OF WORK

1 Introduction :

1.1 WIFI is fast emerging as technology solution to provide high speed wireless internet connectivity. It allows a WIFI enabled electronic device such as a personal computer, Laptop, smart phone, tablet etc to access high-speed Internet connections. Also through WIFI, internet connectivity can be provided in those areas where there is still no internet coverage neither wired nor wireless.

1.2 A Wi-Fi network provides the features and benefits of traditional LAN technologies such as Ethernet and Token Ring without the limitations of wires or cables. It provides the final few meters of connectivity between a wired network and the mobile user thereby providing mobility, scalability of networks and the of installation. WIFI is a wireless LAN Technology to deliver wireless broad band speeds up to 30 Mbps to Laptops, PCs, PDAs , Smart Phones, Tables and dual mode WiFi enabled phones etc. The high speed backhaul bandwidth from wired network i.e. FTTH, VDSL, leased line etc. is shared among the Wi-Fi hotspot users.

1.3 Moreover, the Wi-Fi hotspots are helping the service providers extends the services to their existing customers & roamers and also to non-operator users.

1.4 An explosive surge in mobile data traffic volumes has been observed due to massive usage of smart devices coupled with easy access to bandwidth intensive applications. Wi-Fi is also an emerging technology for mobile data offloading and capable to relieve congestion in mobile network, enhance user experience by delivering high speed, provide extensive coverage and improvise the overall economics of their network deployment and operations.

2. Proposed Architecture and Solution Tender is for Planning, engineering, Supply, installation, Commissioning, Operation and Maintenance of Wi-Fi hotspots and Wi-Fi offload of the mobile network in any service provider and to integrate them system required to support the solution with existing network.

Through this RFP, RailTel intends to select Bidder for supply, installation, configuration, operations and maintenance of AAA & B/OSS infrastructure for Wi-Fi Services at RailTel Data Centre(s) across India from its empanelled Business Partners / SI / RailWire MSPs.

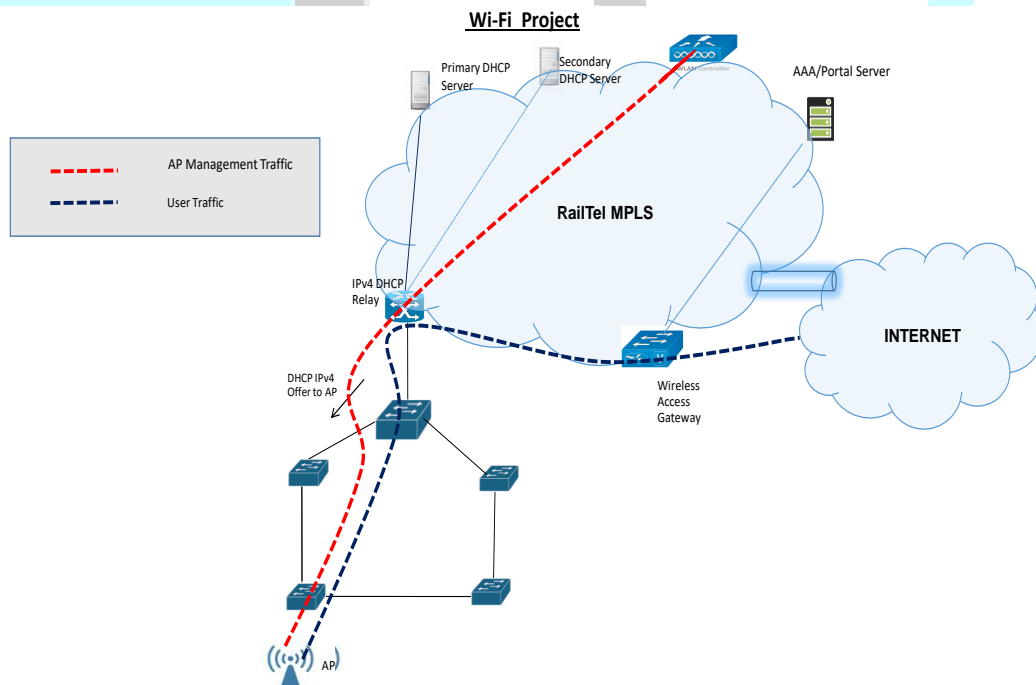
RailTel intends to roll out Wi-fi services across the country for their various requirement as below:

- (a) MHRD
- (b) Station Wi-Fi
- (c) RailWire Wi-Fi
- (d) Enterprises

To meet these requirement, RailTel wants to have a full-fledged technical solutions from the centralized solution perspective.

Selected Managed Service Provider shall be responsible for end-to-end implementation of the B/OSS solution for “Wi-Fi Services” at our Data Centers which includes following:

- AAA system (Authentication, Authorization and Accounting)
- A captive Portal for user
- A Prepaid Online charging system
- A Billing Management System/Portal
- Subscriber Management/Database
- Voucher Management System
- Self-Care portal for Campus users
- Admin portal for Campus/University staff
- CRM support/Ticketing System. This should be able to integrate with the CNOC ticketing system of Railtel
- Reporting & user monitoring
- EMS (Monitoring system)
- Integration support for SMS Gateway, Wireless Access Gateway/BNG,Payment Gateway, Railtel Ticketing System etc
- Partner Management Model



1.1.1. Roles and responsibilities of Bidder

- To commission the Services in a timely and professional manner. Selected Bidder shall use commercially reasonable efforts to provide the Services under this Agreement during all days without any interruption in accordance with industry standards, except where such interruption arises out of, results from, or is related to

an event of Force Majeure or other cause or circumstances beyond the reasonable control of BIDDER;

- ii. To arrange to provide, install and commission all the necessary hardware, software and accessories required to provide the Services at its cost and build and maintain the entire B/OSS solution at RailTel Data Centers. Bidder shall maintain with committed SLA and ensure warranties and AMCs of equipment etc. are in place to maintain committed network uptimes.
- iii. Responsible for the service design / content of customer registration / login page/ web pages with the concurrence of RailTel.
- iv. To provide the hardware, software and licenses and associated infrastructure required to provide the service and also manage required NMS / NOC for management of B/OSS solution and other services at their own cost.
- v. To provide required manpower at RailTel Data Centers for O&M of infrastructure.
- vi. Update technology as and when new features are available.
- vii. Shall facilitate seamless integration with existing Wi-Fi system being set up in any other locations if required by RailTel.
- viii. Selected Bidders shall be responsible for supply of BSS ,OSS , CRM application with different modules meeting the requirement of Wi-Fi services including all supporting software such as database, backup, middleware(if any) etc. All system should be supplied in DC-DR redundancy.
- ix. Selected Bidders shall provide Annual Technical Support(ATS) for OSS, BSS , CRM and other applications including all supporting software such as databases, backup and middleware (if any) etc.
- x. Selected Bidders shall provide Application Management, Application Helpdesk Support, Database Management and Change Management for systems supplied.
- xi. Selected Bidders shall provide the hardware and IT infrastructure sizing for hosting the OSS,BSS and CRM application in the RailTel's Data Center or in any other location selected by RailTel.
- xii. As one time effort, selected bidder shall migrate the B/OSS and CRM application from RailTel Data Center to any other location if required in future.
- xiii. Selected Bidders shall support the system for duration of contract unless it is terminated before completion of period.
- xiv. Selected Bidders shall customize the system for necessary enhancements as required by RailTel for duration of the contract.

- xv. Selected bidder shall undertake all development activities related to in-scope applications which it deems necessary for business changes/enhancements or on RailTel's request to improve quality of services at no extra cost.
- xvi. Selected bidder should own end-to-end SLA and should co-ordinate with vendors/third party(if any) to maintain SLAs.
- xvii. Selected Bidders shall be responsible for periodic updates of the B/OSS solution deployed at RailTel Data Centers.
- xviii. Cost of all the installation material shall be borne by the Bidders as a part of installation & commissioning charges.
- xix. Compliance to all mandatory government regulations pertaining to network and services deployed by bidder.

1.1.2. Roles and responsibilities of RailTel

- To facilitate and coordinate with MHRD, UGC and Campuses for any of the project related requirement.
- Data Center hosting facilities will be provided by RailTel for hosting AAA, CRM and Billing Solutions and other infrastructure which RailTel deems necessary.
- To provide access to RailTel Data Center at Gurgaon and Secundrabad for commissioning of the required server for hosting the solution. This will extend to the maintenance jobs to be undertaken by the selected bidder.
- To provide required permissions to staff of selected bidder for access in RailTel Data Centers & other areas.
- RAILTEL shall provide approvals & sign-offs to the deliverables within the stipulated time period.
- RAILTEL shall direct and monitor the activities performed by the bidder as per the Tender Document and in turn validate the service levels attained as per the SLA.

1.1.3. Overview of the Proposed Solution

The main objective of this assignment is to implement a highly efficient, reliable, secure and a scalable Wi-Fi Service Management solution for Wi-Fi network by incorporating Authentication, Authorization, and Accounting (AAA) services, Access gateway, CRM Services, Billing management Services and other related services for Wi-Fi network infrastructure at RailTel DataCenters.

The system is expected to efficiently support and manage over 2.5 lakh Campus Wi-Fi users spread across 38 universities pan india with around 1 lakh concurrent user base.

The Wi-Fi Service Management solution should provide AAA services, captive portal, billing management ,CRM support, Admin and Self care portal, Voucher management system and EMS for monitoring. The solution should have the capability of communicating with different types of devices of all telecommunication service providers. The solution should also have the capability of pushing notifications / advertisements to the end user devices.

The solution should be provided along with required servers, hardware and equipment for its fullest functionality and optimal performance. The profiling of users and appropriate policies shall be pushed from RailTel data centre.

Note – Please refer detailed specifications sheets given in Chapter-3C for detailed scope of work.

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CHAPTER-3

C. TECHNICAL REQUIREMENTS & SPECIFICATIONS

3.1 GENERAL SYSTEM GUIDELINES

- a) Tenderer shall be responsible for the successful completion of the project.
- b) Purchaser/Engineer reserves the right to modify, revise, and alter the specifications of equipment system prior to acceptance of any offer.
- c) If during the course of execution of the work any discrepancy or inconsistency, error or omission in any of the provisions of the contract is discovered, the same shall be referred to the Purchaser/Engineer who shall give his decision in the matter and issue instructions directing the manner in which the work is to be carried out. The decision of the Purchaser/Engineer shall be final and conclusive and the Tenderer shall carry out the work in accordance thereof.

3.2 TECHNICAL RESPONSE

The technical response shall be fully comprehensive and detailed and will include detailed guaranteed specifications of the equipment and systems to be supplied. Marginal performance shall not be accepted.

3.3 FEATURES AND CAPABILITIES OF SYSTEM

The specifications given in this chapter contain the necessary requirements of RailTel with regard to the features and capabilities of the system to be offered by the Tenderers. These will be carefully studied and commented upon by the Tenderer. These should not be treated as maximum specifications.

3.4 COMPLIANCE TO TECHNICAL REQUIREMENTS

3.4.1 CLAUSE BY CLAUSE COMPLIANCE

In the offer, the Tenderer shall include statement of clause by clause compliance of the tender document and sufficient documentation such that RailTel can validate the compliance statements. In the statement of compliance, the Tenderer shall state:

- a) "FULLY COMPLIANT," if systems and functions offered fully meet the tender requirement.
- b) "PARTIALLY COMPLIANT," if systems and functions offered meet the tender requirement partially. The Tenderer shall state the reason why the offer is partially compliant. However, if the Tenderer is able to fulfill the specified requirement later, the time schedule for this shall be stated. In such cases, the Tenderer shall clearly mention the extent to which other requirements or specifications are affected.
- c) "NON COMPLIANT," if systems and functions cannot meet the requirements. The Tenderer shall also state the reasons for it.

- d) In addition to the above mentioned compliance statements, wherever statement is given for some numerical parameter specified in tender, Tenderer shall state the actual numerical value of specification as met by the offered systems / equipment.

3.4.2 NIL OR UNCLEAR RESPONSE STATEMENTS

In case of nil or unclear statements of compliance for any specified requirement, RailTel will interpret that particular requirement as being "NON COMPLIANT."

3.4.3 VARIANCE FROM SPECIFIED REQUIREMENTS

In case of variance of the offered system from the specified Technical requirements, the decision of RailTel on whether the system offered is responsive to the bid requirements shall be final and binding upon the Tenderer.

3.5 Below are the high level specifications of the AAA and B/OSS Infrastructure System –

3.5.1 Tiered Architecture to support high resiliency and redundancy:

Solution must not have single point of failure and need to support Geo Redundancy (if required), being mission critical application for NOC.

3.5.2 Mediation layer, Integration Capabilities:

The expected integrated AAA & B/OSS architecture needs to manage multi-tenancy: Multi-Vendors, Multi-Domains, Multi-Technologies. The bidder needs to explain how their solution complies with this requirement.

3.5.3 AAA Requirements

1. The AAA should support centralized subscriber authentication and authorization at appropriate level of service.
2. AAA server should be capable to integrate with Wireless access gateway over RADIUS.
3. AAA should support interoperability with multiple vendor gateways/access network components i.e. BRAS/WAG/WLC etc.
4. AAA server should support Open SSID based authentication and Web based secured login using existing username and password, restricting unauthorized access to the system.
5. Proxy Management: AAA should be able to proxy the request to 3rd party AAA.
6. AAA should support:
 - a. Modify/insert attribute during proxy request
 - b. Accept/reject based on attribute received in request

7. AAA server should produce accounting information in files allowing the export of accounting data to CSV or similar file format.
8. The system shall deliver flexibility of authorization attributes based on single user, domain, radius client, etc.
9. It shall support authorization based on Access Policy, Concurrent Policy and Radius Policy.
10. AAA should support vendor specific dictionary in authentication packet.
11. AAA should support real time accounting with RADIUS based support.
12. AAA should support GUI based configuration in addition to CLI.
13. AAA should be able to integrate with any external NMS easily over SNMP.
14. AAA should support Realm policy configuration and service for Wi-Fi.
15. AAA should support multiple access Vendors like BelAir, Ruckus, Cisco, ALU, Ericsson, Huawei etc.
16. The AAA should support integration with following network elements:
 - a. AAA Proxy
 - b. Directory and LDAP
17. The AAA should be capable to provide an interface for communication between network components and charging system working on different protocols like RADIUS, DIAMETER and proprietary.
18. AAA should be compliant with following RFC's:
 - a. RFC 2865: Remote Authentication Dial-In User Service (RADIUS)
 - b. RFC 2866: RADIUS Accounting
 - c. RFC 2867: RADIUS Accounting Modifications for Tunnel Protocol Support
 - d. RFC 2868: RADIUS Attributes for Tunnel Protocol Support
 - e. RFC 2869: RADIUS Extensions
 - f. RFC 2882: NAS Requirements
 - g. RFC 2903: Generic AAA Framework
 - h. RFC 2904: AAA Authorization Framework
 - i. RFC 2905: AAA Authorization Application Examples
 - j. RFC 2905: AAA Authorization Requirements
 - k. RFC 3162: RADIUS and IPv6
 - l. RFC 3377: Lightweight Directory Access Protocol (v3): Technical Specification *
 - m. RFC 3575: IANA considerations for RADIUS

- n. RFC 3576: Dynamic Authorization Extensions to Remote Authentication Dial-In User Service (RADIUS)

- 19. The System should support a flexible configuration:
 - a. Authentication Rules (RADIUS AVP / VSA)
 - b. Authorization Rules (RADIUS AVP / VSA)
- 20. The System should support the ability to add new RADIUS AVP / VSA in the directory.
- 21. The System must support the Transparent Auto-Login (example: for MAC address of the client UE, if it already held Web-Based Authentication in a specified period of time).
- 22. The System should support the ability to work in a mode of RADIUS proxy.
- 23. The system should SOAP based API for integration with external system.

3.5.4 Captive Portal for users

- 1. Supplier must provide a customizable captive portal for authentication of subscribers.
- 2. Identification, authorization and authentication of subscribers should be possible via:
 - a. Using identifiers of the SIM card
 - b. OTP based authentication
 - c. SMS based authentication
 - d. Use of vouchers and cards purchased online
 - e. Using vouchers cards purchased from a distributor
- 3. The web portal should support following features:
 - a. Support for RADIUS CoA
 - b. Support for HTTP Post
- 4. Location based portals: Web Portal should be completely customized based on Location from which AP request is coming.
- 5. Web portal should be compatible to all types of device's like small screen, Large screen, laptop, desktop, phones etc.
- 6. Web portal should support SMSC integration via SMPP.
- 7. Web portal should be able to send OTP via SMS to customers.
- 8. SMS content should be configurable.
- 9. There should be separate back end management engine to handle portal operations with user friendly GUI.

10. The portal shall have the ability to alter specific contents like text, logo using some editor.
11. The Portal Management shall support a responsive web design that adapts the layout and orientation of the screen based on user-agents or browser being used.
12. The Portal Management shall have the ability to configure the Workflow, e.g. Display Portal, Terms and Conditions, Survey etc.
13. The Portal solution shall Support integration with Advertisement Server.
14. The Portal solution shall have the ability to trigger notifications using SMS and email.
15. The Portal solution shall support and properly render web contents to the following known internet browsers:
 - a. Internet Explorer
 - b. Google Chrome
 - c. Safari
 - d. Firefox
 - e. Opera
 - f. Android Browser
16. The Portal solution shall provide space for Account status information, FAQs on self-care page.
17. The System should support the ability to:
 - a. Using the MSISDN as a client ID (telephone number automatically becomes a Login)
 - b. Providing service to customers of all MSISDN
 - c. Set a limit on the Numbering MSISDN (example: checking format "prefix 91 + 10 characters" to limit the operators in India)
 - d. The configuration of the logic of service depending on the operator MSISDN
18. The System should support:
 - a. Random and Automatic password generation during customer registration
 - b. Adjustments format of passwords generated by customer (for example: the dimension of at least 8 characters, letters with the registry, numbers and special characters (# _ * -> <))
19. The system should have support for integration with Payment gateway for online payment via credit or debit cards.
20. The system should have capability to integrate with 3rd Party PMS system.

21. The system should have ability to automatically purge the inactive subscriber data.
22. Portal should support Multiple options for Logout (i.e., URL Hit, Popup Window, Idle Time out etc.)
23. System should support user session block and unblock based on configurable failure attempts.
24. System should support detection of Vendor/Hotspot location and Landing to specific Portal Page.
25. System should support configurable error messages for login and logout.
26. System shall support alerts messages and notifications via SMS for various Events (i.e. Login, Logout, Registration, Usage information etc.).
27. System shall support Multi lingual SMS and portal.
28. The Portal solution shall support multiple payment options for Wi-Fi Service purchase i.e.
 - a. Paper Voucher
 - b. Online Payment
 - c. Payment using prepaid balance
29. System shall support Web based interface for Top up and Renewal using Voucher or Online payment.
30. System should have support for management of parent/child hierarchy where parent/child can use the same plan.
31. System shall support flexibility to create/manage child account under the parent user with individual quota management and usage reports.
32. Portal shall support notifications related to child account activities like registration, usage based etc.
33. The Portal solution should have support for Wi-Fi wallet i.e. Single Platform for multiple payment activities like recharge, renew plan etc.
34. Portal Language would be Configurable based on Device locale.
35. Should Support Forced Redirection of the User to the Registration Page.

3.5.5 Rating and Charging Requirements

1. The offered solution should support time based plan.
2. The offered solution should support volume based charging i.e. flat plans.
3. The offered solution should support hybrid plan i.e. both time and volume based plan.

4. The offered solution should support exclusion of domains, ip addresses for volume calculation and subsequently exclusion of that particular volume of traffic from charging.
5. The offered solution should support FUP/QoS based plans.
6. Supplier shall support to transfer the CDRs to any third party billing system in push/pull mode by open standard FTP/FTAM/SFTP etc.
7. Offered solution should support Invoice generation for postpaid type of subscribers.
8. Should support flexible billing cycles
9. Customizable Bill & Invoice Template
10. Flexible Taxation Policies to enter Tax Parameters
11. Should Support Electronic Payment Gateway Integration.
12. Should Support Custom/Ad-hoc Bill Runs
13. Should support recharge of the subscriber account using vouchers, credit cards, etc.

3.5.6 Billing management system/Portal

1. The offered solution should support Invoice generation user wise or consolidated for postpaid type of subscribers on monthly basis per university. Based on this, it should have provision of calculating the revenue on monthly basis for each university.
2. The offered solution should have a portal where in admin of each university can view the monthly consolidated invoice as per the users and can approve it further for payment. The approved invoice should be viewable to partners for reconciliation and their approval.
3. Campus/university wise revenue reports montly/quarterly/yearly.
4. Any additional requirement/customization should be covered as desired by the RailTel.

3.5.7 Voucher Management System

1. The supplier shall provide voucher management system to create and recharge vouchers.
2. The VoMS should support different voucher types like paper, electronic and pre-activated vouchers.

3. The VoMS should allow smooth deployment of API's and architecture based on industry standards.
4. The VoMS should support:
 - a. Individual and Batch voucher generation
 - b. Recharge/Renewal and registration
 - c. Encrypted voucher generation in case print detail file need to be sent to third party printing systems
 - d. Detect and void duplicate voucher
5. Voucher Format should be adjustable i.e.:
 - a. Prefix
 - b. Length, Character set i.e. Numeric, Alphanumeric etc.
6. VoMS shall support pre-registered vouchers
7. VoMS should support diversified voucher and pin formats.
8. VoMS shall support Prepaid Model wherein:
 - a. Reseller/Agents can generate Vouchers from Portal within a given Credit limit.
 - b. Reseller/Agents can purchase Vouchers using online payment gateway.
9. System should support Voucher distribution of different denomination & plan using Thermal Printer.
10. System should support Business Intelligence Report Generation and Distribution for different voucher plans using Thermal Printer.
11. System should support Promotional offer generation i.e. Configure / generate automatic or manual promotional codes and offers to avail with usage validity.

3.5.8 Self-Care portal for users

1. Customer Portal is intended for use by the customers for self-service. Self-Care interface should be designed in such a way that the functions delivered should meet most of the needs of a customer.
2. Subscriber shall be able to retrieve Password in SMS (Forget Password) using Web based self-care interface.
3. Web self-care view shall be compatible to device type like smart phone, Tablets.
4. The portal should provide information like Usage based on subscriber package like
 - a. Time/Volume, Monetary
 - b. Units, Current balance available

- c. Subscriber Package Information
 - d. Subscriber Billing / Payment Details
 - e. Recharge/Renewal support
5. The offered solution should have feature where in users can log their complaint and query. The complaint/query of the users should be redirected to centralised CRM support/helpdesk.
 6. The self-care portal should be capable of displaying:
 - a. Transactional information
 - b. Package information
 7. Any additional requirement/customization should be covered as desired by the RailTel.

3.5.9 Admin portal for Campus/University staff

1. The offered system must have staff and access management module for managing multiple operations.
2. The offered system shall support creation of different access group.
3. The offered solution shall support creation of multiple user accounts with different access rights.
4. Admin can view the list of users/subscriber for each university. Admin should have rights to add/delete users/subscribers for each university.
5. Admin can see the list of all the active/inactive users and can see/modify the data/information of all the users.
6. Admin can view/approve the monthly/quarterly/yearly invoice based on users per campus/university.
7. Admin can log a complaint/query through their portal and it should be redirected to centralised CRM support/helpdesk.
8. System shall support configurable Password Policy.
9. Any additional requirement/customization should be covered as desired by the RailTel.

3.5.10 CRM support/Ticketing System

1. The offered solution should provide integration with our centralised CRM support/Ticketing system.
2. CRM support/Ticketing system should be available on self care portal and admin portal for admin and users

3. Shall be able to retrieve Password in SMS (Forget Password)
4. Any other work related to customization or any new development should be worked on.

3.5.11 EMS (Monitoring system)

1. Monitoring system for end-to-end access gateways, B/OSS system and its modules deployed at RailTel Datacenter.

3.5.12 Architecture requirements

1. The supplier shall provide a functional and physical (hardware) architectural overview of the relevant products and systems making up the solution.
2. The supplier shall provide logical architecture of its offered solution.
3. The supplier shall present an overview description of software architecture of offered solution.
4. The solution should support high availability.
5. Supplier shall provide the list of important factors which limits the capacity & performance of nodes.
6. Supplier shall provide the maximum supported capacity statement on node/function level
7. All equipment provided in solution shall have minimum 99% uptime for Node/Platform level.
8. Supplier shall consider CDR retention period to be of 13 months as per TRAI guidelines.
9. Supplier shall provide:
 - a. The maximum supported capacity statement on node/function level
 - b. Planned End of Sale / Support of all solutions included in the Proposal
 - c. A list of licensed options of the Proposed Solutions
10. System shall have support of monitoring all the supplied components.
11. Supplier shall ensure log forwarding to centralized logging solution at DC in realtime and to respective universities also. The logging should not impact the performance of AAA system.
12. Supplier shall ensure logging time-zone compatibility.
13. Supplier shall ensure that there is no data loss during log forwarding.
14. Supplier shall ensure that the AAA solution has enough buffer/storage for logging so that in case of failure of remote logging AAA can hold logs for atleast 2 days &

once remote logging is up the queued logs should be forwarded to remote logging system.

15. The system shall ensure log forwarding in TCP & UDP.

3.5.13 Solution and Services

1. Supplier shall provide the AMC or Support Scope document.
2. Supplier to provide the Technical Proposal with Solution Architecture.
3. Supplier shall provide Project Management Methodology.
4. Supplier should provide additional customization/development in the portals time to time as desired by the RailTel.

3.5.14 Roadmap

1. Supplier to provide the roadmap of software component of the solution.
2. Supplier to list down all the entities of the solution which are attached to license.

3.5.15 Interoperability

1. Supplier shall support interoperability with all the major vendors.
2. Supplied solution shall work in multi vendor environment.

3.6 EARTHING:

3.6.1 The earthing arrangement shall be provided by RailTel. Tenderer should indicate required value of earthing for the equipment.

3.7 SYSTEM ENGINEERING GUIDELINES:

3.7.1 Solution has to be designed at least for 99.95%(Tier-III SLA) availability excluding planned maintenance activities.

3.7.2 Solution has to have HA configuration in Active-Active mode.

3.7.3 With 100% concurrent users loaded on the system the target response times should be as follows:

3.7.3.1 Tab navigation (such as moving from dash-boarding to reporting etc.) <2seconds.

3.7.3.2 Screen opening from user login<3 seconds.Adds, cross functional marketing and URL redirections should not be displayed on the screens with out the permission of RailTel.

3.7.3.3 Simple & Medium Report generation <30 seconds

3.7.4 Utilization of IT Infrastructure:

3.7.4.1 Infrastructure utilization should be less than 60% at peak load.

3.7.4.2 Infrastructure can be defined as CPU, memory and other critical hardware/software components which may have impact on overall system performance.



CHAPTER-3

D. DEPENDENCIES AND RESPONSIBILITY MATRIX

4.1 DESIGN OF THE SYSTEM

The deployment location(s) will be decided by RailTel based on requirement. It will be in the scope of the vendor to technically support RailTel with design parameters, process flow fine tuning, alignment, optimization, escalation matrix definition, SLA rules definition & implementation etc within the limitations of ordered configurations (SOR, Specifications etc) for successful commissioning of the system. Design of system would include the following:

- a) Provision for integration with other modules / systems as per clause 3.6.1 of Chapter-3C.

System Designs shall be approved by RailTel before implementation.

The Tenderer shall submit detailed report on the above parameters and the complete system design including system performance to meet the technical requirements including codes for customization.

4.2 QUALITY ASSURANCE PROGRAMME AND IMPLEMENTATION METHODOLOGY

The tenderer with quality assurance should prepare Implementation Methodology covering:

- a) Supply, installation, customization, SAT (Site Acceptance Test), UAT, trial runs, Commissioning etc.
- b) Allocation of manpower for different activities.
- c) Submission of PERT chart indicating completion of various activities within targeted time frame.

4.3 MANUFACTURING, SUPPLY AND STORAGE OF EQUIPMENT

The tenderer will be fully responsible for Manufacturing, Supply of Equipment/cards/interfaces/software and all related items for installation and commissioning of the system including the following:

- a) Spares required for Commissioning & warranty period shall be maintained by the Contractor at his own cost.
- b) All necessary cables and connectors required.
- c) The tenderer shall be responsible for transportation and storage of Equipment and all other items required for Installation and Commissioning of the system to RailTel's stores/sites as advised.

4.4 SITE PREPARATION

4.4.1 RailTel' s Responsibility

Following shall be arranged by RailTel:-

- i) Space / Buildings / equipment room for housing rack / space in rack for location of equipment.
- ii) AC/DC power supply required for equipment.
- iii) Earthing as per requirement of equipment.
- iv) Cooling arrangement.

Power Supply will be made available by RailTel at locations adjacent/near to the Equipment. Earthing will be made available on earthing bus- bar in the equipment room.

4.4.2 TENDERER's Responsibility

The tenderer will be responsible for “Supply, Installation, Integration, Customization, Testing, Training & Commissioning” of complete work for this tender. It shall be the responsibility of Supplier to transport the equipment to site for the Installation & Commissioning. Requirement for the following will be clearly indicated by the tenderer in the bid:

- a) Power Supply requirement (AC/DC).
- b) Power Load.
- c) Space.
- d) IT Racks.
- e) Cooling Requirement.
- f) LAN Ports.
- g) SAN- Storage Requirement.
- h) LAN Cables.

4.5 OUTSIDE PLANT ACCEPTANCE

The tenderer should check and ascertain that the power supply and earthing arrangement existing at the site to meet the requirement of equipment proposed to be installed. Augmentation required if any may be clearly brought out by tenderer.

4.6 INSTALLATION, INTEGRATION, CUSTOMIZATION, TESTING, TRIAL RUN AND COMMISSIONING OF SYSTEM

The Tenderer shall be fully responsible for Quality Assurance of equipment & other elements of the system including the following:-

- a) Installation, Integration & Customization of the above said equipment / items as per System design.
- b) Testing of the System as specified in the tender document.
- c) Trial run of the System.
- d) Commissioning of the System.

4.7 TRAINING OF PURCHASER'S PERSONNEL

Training on the AAA and B/OSS Infrastructure System shall be provided by the Tenderer as per details given in the schedule of requirement and the tender document.

Admin and User Training shall be provided by OEM/OSSP certified personnel qualified for the offered product.

4.8 FINAL COMMISSIONING

The System shall be considered to be commissioned only after successful completion of the SAT/UAT, Trial Run and after issue of Provisional Acceptance Certificate (PAC).

Any item of Tenderer's goods/services not specifically mentioned, but considered essential for completion/commissioning of the work in all respects shall be deemed to be included in the scope of work. The tenderer may bring out any additional requirement and quote the price for the same as per the relevant SOR item, otherwise, it shall be required to be supplied by the tenderer free of cost.

4.9 PROJECT PLAN

Time is of essence in this project and selected partner is requested to specify the time frame for implementation along with a detailed breakup. RailTel wants to roll out all deliverables within the time period as mentioned in BDS (Chapter-5).

SN	Description
1	The selected partner must describe its project organization and project model
2	The partner must specify whether they have any commercial off-the-shelf product for this solution. If they do not have, then have to mention which area they need to build up or customize their solution.
3	The response shall contain a roadmap for proposed solution
4	<p>A project specification must be delivered during the first phase of the project. It should include at least the following:</p> <ul style="list-style-type: none"> - Goals: goal of the project including quality, strategy and limitations - Plans: time schedule and deployment plan - Resources: resource plan including personnel, roles and responsibilities, strategy for communication and progress reporting - Quality: authorities, document control, reviews, change requests - Risk Analysis
5	The Selected partner must specify what kind of resources has to provide and for how long. The responsibility matrix (For Selected partner and) document has to be attached separately in the Solution Proposal.
6	The Selected partner must specify a time schedule for the project. The time schedule should be divided into suitable milestones. Optional parts of the project must be scheduled separately

7	A test and acceptance plan must be delivered in the beginning of the project. Acceptance test specifications shall be prepared by the selected partner and approved by RailTel. SI shall run the acceptance tests and the OSSP shall support this activity. After completing the Acceptance Test cases with support from selected partner, all three parties have to sign off the Acceptance Test Cases before going to next level.
8	A project handover document has to be provided by the Selected partner mentioning the Project goal, Acceptance Test status. If all Acceptance tests are passed only then the Project can be handed over to Operation of and to the Support team of Selected partner
9	The Selected partner must present at least 3 references of similar solutions regarding mobile networks.
10	A test acceptance plan must be delivered in the beginning of the project. It should include at least following: <ul style="list-style-type: none"> - Test methodology - Test criteria - Test cases - When: plan for tests concerning milestones - Where: in the development system or a dedicated test system - How: specify requirements on personnel during the tests
12	An acceptance test specification must be delivered two weeks before the start of every acceptance test. The test cases have to be conducted successfully by system integrator itself, before offering for UAT. The test cases should map the requirements in this specification. The finalized Test Specifications have to be signed off by as well, prior to performing the Acceptance Test.

4.10 Proof of Concept (POC) Testing:

RailTel reserves the right to ask bidder to conduct FOC POC. The POC scope and use cases for demonstration would be a sub set of this RFP and details of the same will be shared in a different POC document.

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CHAPTER-3

E. INSTALLATION, TESTING AND COMMISSIONING

5.1 TESTS AND MEASUREMENTS: Not Used.

5.2 TEST CATEGORIES

5.2.1 The following tests besides the tests covered under Type Approval Tests shall be conducted for acceptance of the equipment and the system before final acceptance of the system. Waiver of Part or whole of type tests can be considered if proof of having done the tests by independent body or PTT authority is submitted:

- a. Factory Acceptance Testing (FAT).
- b. Pre-commissioning test after installation of the system.
- c. Site Acceptance Testing (SAT) / User Acceptance Testing (UAT).
- d. Trial Run / User Trials.

5.2.2 These tests shall be carried out on all equipment supplied by Tenderer including those supplied by sub-vendors, if any. Tenderer shall arrange all necessary test instruments, manpower, test-gear, accessories etc.

5.2.3 All technical personnel assigned by Tenderer shall be fully conversant with the system specifications and requirements. They shall have the specific capability to make the system operative quickly and efficiently and shall not interfere or be interfered by other concurrent testing, construction and commissioning activities in progress. They shall also have the capability to incorporate any minor modifications/suggestions put forward by Purchaser/Engineer.

5.2.4 Test Plan: The Contractor shall submit to Purchaser 'Test Plans' well in advance of commencement of actual testing in each of the above mentioned test categories.

The plans shall include:

- a. System/Equipment functional and performance description (in short) and Tests to be conducted and purpose of test.
- b. Test procedures (including time schedule for the tests) and identification of test inputs details and desired/expected test results.

5.2.5 Test Report: The observations and test results obtained during various tests conducted shall be compiled and documented to produce Test Reports by Tenderer. The Test Reports shall be given for each equipment/item and system as a whole. The report shall contain the following information to a minimum:

- i) Test results.
- ii) Comparison of test results and anticipated/expected (as per specifications) test result as given in test plans and reasons for deviations, if any.

iii) The data furnished shall prove convincingly that:

- a. The system meets the Guaranteed Performance objectives.
- b. Mechanical and Electrical limits were not exceeded.
- c. Failure profile of the equipment during the tests are well within the specified limits.

5.2.6 Failure of Cards/Components:

Till the system is accepted by the Purchaser, a log of each and every failure of cards/components shall be maintained. It shall give the date and time of failure, description of failed component/ card with serial no., lot no. etc, circuit, module, component designation, effect of failure of component on the system/ equipment, cause of failure, date and time of repair, mean time to repair etc. Detailed documentation for the same shall be submitted to Purchaser for future reference.

If the malfunction and/or failures of a unit/module/sub-system/equipment repeat during the test, the test shall be terminated and tenderer shall replace the necessary component or module to correct the deficiency. Thereafter, the tests shall commence all over again from the start.

If after the replacement the equipment still fails to meet the specification, tenderer shall replace the equipment with a new one and tests shall begin all over again. If a unit/ subsystem/module have failed during the test, the test shall be suspended and restarted all over again only after the Tenderer has placed the Equipment back into acceptable operation. Purchaser's approval shall be obtained for any allowable logical time required to replace the failed component/unit/module/sub-system.

5.2.7 Re-adjustments

No adjustments shall be made to any equipment/cards/modules during the acceptance tests. If satisfactory test results cannot be obtained unless readjustments are made, Tenderer shall carry out only those readjustment needed to ready the equipment/system for continuance of tests. A log of all such adjustments shall be kept giving date and time, equipment, module, circuit, adjustments, reasons, test result before and after adjustment etc. Fresh acceptance tests shall be conducted after the readjustments have been completed.

5.3 FACTORY ACCEPTANCE TESTING (FAT):

Factory acceptance tests shall be carried out after review and approval of FAT procedure/documents as per bid requirements and review of Pre-Factory acceptance results & shall be conducted at the manufacturing facilities from where the respective equipment/subsystems are offered. The factory acceptance testing shall be conducted in the presence of the Purchaser/Engineer.

The factory tests shall include but not be limited to:

A) Equipment Testing:

- (i) Mechanical checks to the equipment for dimensions, inner and outer supports, finishing, welds, hinges, terminal boards, connectors, cables, painting etc.
- (ii) Electrical checks including internal wiring, external connections to other equipment etc.
- (iii) Check for assuring compliance with standards mentioned in the specifications.
- (iv) Individual check on each/module/sub-assembly in accordance with the modes and diagnostics programs of the Tenderer.
- (v) Checks on power consumption and heat dissipation characteristics of various equipment.
- (vi) Environment testing and other laid down tests in Type Tests plan of the specification of the equipment.
- (vii) Functional testing.
- (viii) Any other test not included in FAT document but relevant to the project as desired by the Purchaser/Engineer at the time of factory acceptance testing.

B) System Integration Testing

Functional and performance test should be conducted for the complete system/ all major equipment constituting the system (including the equipment supplied by sub-vendors, as applicable) simulating the complete system. All equipment shall be connected using the same cables (interfaces/components) as will be used during final installation so that the system can be tested in its final configuration. This testing shall be conducted at the manufacturing facility of the main equipment.

5.4 INSTALLATION

Installation of a system / software / equipment comprises of the following functionalities:

- (a) Basic product functionalities for usage and administration
- (b) HA failover test
- (c) System recovery through backup
- (d) Reporting and dash-boarding functionality
- (e) Data continuity check, from third party system

All equipment / software shall be checked for completeness as per the specifications of equipment. Installation shall be carried out in accordance with the installation manuals and approved installation drawings in the best workmanship.

Tenderer shall indicate the number of teams and the list of equipment for each team to be deployed for installation of the system in order to complete the work within the stipulated time frame.

If during installation and commissioning any repairs are undertaken, the maintenance spares supplied with equipment shall not be used for the repair. Tenderer shall arrange his own spare parts for such activities till such time the system has been finally accepted by the Purchaser. A detailed report & log of all such repairs shall be made available by the Tenderer to Purchaser/Engineer and

shall include cause of faults and repair details, within two weeks of fault occurrence.

Tenderer shall supply all installation materials required for proper installation of the equipment. These shall include but not be limited to, all connectors, inter-bay and inter-equipment cables, power / earthing cables, DCDB 8-10 ports and connectors, anchoring bolts, nuts, screws, washers etc. as needed.

The bidder has to ensure that installation of equipment shall be done as to present neat and clean appearance in accordance with approved installation document drawings. All inter bay, power supply and other cables shall be routed through wall mounted cable trays. No cable shall be visible. Equipment installed at one of the site shall be made as model site and Tenderer shall take approval from Purchaser/engineer on various aspects etc.

5.5 PRE-COMMISSIONING

On completion of installation of equipment, the correctness and completeness of the installation as per Manufacturer's manual and approved installation documents shall be checked by the Tenderer on his own.

A list of Pre-Commissioning tests (same as approved by the Purchaser/Engineer for Site Acceptance Testing) and activities shall be prepared by Tenderer and the test shall be carried out by the Tenderer on his own. After the tests have been conducted to the Tenderer own satisfaction, the Tenderer shall provide the test results for review by Purchaser/Engineer and then offer the system for Site Acceptance Testing.

During pre-commissioning, if any fault occurs to any equipment or system, Tenderer shall identify the same and provide report/history of all faults to the Purchaser.

Tenderer shall ensure that the spares meant for operation and maintenance are not used during installation and commissioning.

5.6 SITE ACCEPTANCE TESTING (SAT) / USER ACCEPTANCE TESTING (UAT)

On completion of Pre-commissioning and completion of customization, site acceptance testing shall be conducted on the system as per approved SAT procedures and its constituents by the Tenderer under the presence of Purchaser/Engineer.

The tests shall include, but not be limited to the following:

- a) Checks for proper installation as per the approved installation drawings for each equipment/item and system as a whole.
- b) Guaranteed performance specifications of individual equipment/item.
- c) Self diagnostics test on individual equipment.
- d) Tests as per scope of work and detailed technical specifications.

- e) Acceptance criteria as defined in SOW shall only act as precursor to the detailed acceptance criteria's to be formulated as outcome of workshops and as agreed in the signed off business requirement document.

5.6.1 PROVISIONAL ACCEPTANCE CERTIFICATE (PAC)

On Installation of the complete system and after conclusion of SAT/UAT, Provisional Acceptance Certificate (PAC) will be issued by the RailTel so that trial run/ field trials can be started. PAC will not be held back for want of minor deficiencies not affecting the functioning of the equipment. Deficiencies, if any, pointed at the time of issuance of PAC, will be rectified by the contractor within one month. System shall be considered commissioned after issue of PAC.

5.7 SPARES

5.7.1 Maintenance Spares

Unit rates for each spares required for operation and maintenance shall be provided. The Tenderer shall warrant that spare part for the system would be available for minimum of 5 years after system commissioning (taking over). After this period if the Tenderer discontinues the production of the spare parts, then he shall give at least 6 months notice prior to such discontinuation so that Purchaser may order the requirements of spares in one lot.

The list of the required spares with unit cost and total cost should be attached along with the bid.

5.7.2 Commissioning spares

The commissioning spare shall be arranged by the Tenderer to cater to the requirement during installation, commissioning, site acceptance testing, trial run and warranty period. These spares shall be readily available with the Tenderer, at specified locations.

These commissioning spares are different from maintenance spares and Tenderer shall not use maintenance spares as commissioning spares.

5.8 TRIAL RUN/USER TRIALS

Upon conclusion of the site acceptance testing, the Tenderer shall keep the facilities commissioned for one month for 'TRIAL RUN/USER TRIALS'. During this period Tenderer shall provide all specialist Engineers & Technicians including experts to maintain the total log, incidents, failures & for assisting site engineer & for total co-ordination. However, the normal operation and maintenance of the system shall be performed by the personnel of the Purchaser trained for the purpose.

If during 'TRIAL RUN/USER TRIALS' any defect is noted in the system, the Tenderer shall rectify, replace the same to the satisfaction of Purchaser/Engineer. The decision to repeat the final test or restart the 'Trial / Field Trials' shall be of Purchaser/Engineer depending upon the severity of the defect.

During trial run / user trial, if any fault occurs to any equipment of system, Tenderer shall identify and rectify the same and provide report, history of all faults to the Purchaser.

Ideally, during the 'TRIAL RUN / USER TRIALS', no shutdown of the system due to failure of equipment, power supply etc. should happen. A record of all failures shall be kept for each manned/unmanned station and the availability of the system on per hop and end to End basis shall be calculated, accordingly and results submitted to Purchaser/engineer. If the system fails to come up to the guaranteed performance, the Tenderer, within a period of thirty (30) days shall take any and all corrective measures and resubmit the system for another 'Trial Run' of trial period. All modifications, changes, corrective measures, labour etc. shall be at the cost of the Tenderer. In case the date of completion for the second trial run exceeds the time schedule for the project, he shall be liable to pay liquidated damages. If the system fails to reach the guaranteed performance even after the second trial run, the Purchaser shall be free to take any action as he deems fit against the Tenderer and to bring the system to the guaranteed performance with the help of third party at the expense of the Tenderer.

5.9 FINAL ACCEPTANCE

The final acceptance of the works completed shall take effect from the date of successful completion of 12 months after issue of PAC (i.e. the date of Final Acceptance shall be reckoned from the date of issue of the Final Acceptance Certificate of the last installed equipment/module) provided in any case that the contractor has complied fully with his obligations in respect of each item under the contract. The Final Acceptance Certificate shall be issued by GM/P/CO. Notwithstanding the issue of Final Acceptance Certificate the contractor and the purchaser shall remain liable for fulfillment of any obligation incurred under the provision of the contract prior to the issue of Final Acceptance Certificate which remains unperformed at the time such certificate is issued and for determining the nature and extent of such obligation the contract shall be deemed to remain in force between the parties hereto.

5.10 QUALITY ASSURANCE

- a. Tenderer shall submit the details of Quality Assurance program followed by them beginning with raw materials, active, passive and fabricated components, units, sub-assemblies, assemblies, wiring, interconnections, structures, softwares etc. to finished product. Tenderer shall obtain and forward the Quality Assurance Program for equipment supplied by Sub-vendor, if any.
- b. The Purchaser/engineer reserves the right to inspect and test each equipment / software module at all stages of commissioning of the system. The inspection and testing shall include but not be limited to raw materials. Components, sub-assemblies, prototypes, production units, guaranteed performance specifications etc.
- c. It shall be explicitly understood that under no circumstances shall any approval of the Purchaser/Engineer relieve the Tenderer of his responsibility for

material, design, quality assurance and the guaranteed performance of the system and its constituents.

- d. Tenderer shall invite the Purchaser/Engineer, at least 7 days in advance, of the date at which system shall be ready for Testing. All relevant documents and manuals approved Engineering drawings etc. shall be available with the Purchaser/Engineer well in advance of the start of Testing.

5.11 TYPE TEST:

5.11.1 Type test are defined as those test which are required to be carried out to prove the design, process of manufacture and compliance of the equipment being supplied in the tender to the tender specifications with regard to the following:

- Environmental and Immunity / Emission tests to be carried out as per and environmental conditions as specified in QM333 and EMI/EMC tests referred to in the relevant TEC specifications, if any.
- Functional tests as per tender requirement and relevant TEC specification.

5.11.2 The Tenderer shall submit, within two weeks of Award of Contract, copies of test reports and certificates for all equipment specified in the tender document.

5.11.3 Alternatively, Type Test shall be performed by the tenderer at no additional cost to RailTel for the equipment for which certification is not provided as required above, or if it is determined by RailTel that the certification provided is not acceptable.

5.11.4 Type Test shall be certified or performed by Internationally reputed laboratories (necessary credential to be submitted by the bidder as documentary evidence) or Government laboratories in India using material and equipment data sheets and test procedures that have been approved by RailTel.

5.11.5 The Tenderer shall provide a detailed schedule for performing all specified type tests. These tests shall be performed in the presence of a representative of RailTel.

5.11.6 The Tenderer shall ensure that all type tests can be completed within the time schedule mentioned in the tender schedule.

5.11.7 In case of failure during any type test, the supplier is either required to manufacture a fresh sample lot and repeat all type tests successfully or repeat that particular type tests at least three times successfully on the samples selected from the already manufactured lot at their own expenses. In case fresh lot is manufactured for testing then the lot already manufactured shall be rejected.

5.11.8

The contractor shall supply equipment/material for sample selection only after the Quality Assurance Plan has been approved by RailTel. The sample material shall be manufactured strictly in accordance with the approved Quality Assurance Plan. The Contractor shall submit for RailTel approval, the type test sample selection procedure. The selection process for conducting the type test shall ensure that samples are selected at random. At least three samples of the proposed equipment shall be offered for selection, of which one sample shall be selected.

CHAPTER-3

F. TRAINING, VENDOR DATA REQUIREMENT, DOCUMENTATION AND DESIGN GUIDELINES

6.1 TRAINING

Tenderer shall train personnel of Purchaser/engineer in all aspects of the system.

It shall be explicitly understood, that Purchaser's/Engineer's personnel shall be fully associated during Engineering, Installation, Testing and Commissioning activities and this opportunity shall be taken by Tenderer to impart on the job training in addition to the above training course.

The training course shall be designed to train the trainees in all aspects of System engineering, equipment operation, installation and functional details, theory of operation of system, trouble shooting and familiarization with the system at component level.

Tenderer shall provide comprehensive documentation in hard copy as well as soft copy, course material (for train the trainer program), manuals, literature etc. as required for proper training of personnel at his own cost. Consolidated and comprehensive documentation shall be available to each participant. After the completion of course, all such materials shall become the property of the PURCHASER. Tenderer shall update the course material of manuals in case there are any changes owing to revision/modifications in equipment/system specifications.

Tenderer shall, prior to start of training, send complete training program including details of each course, duration, subject matter etc. The Purchaser/Engineer reserves their right to suggest any additions/deletions in the program, which shall be incorporated by the Tenderer at no additional cost.

6.2 VENDOR DATA REQUIREMENT AND DOCUMENTATION

Documentation shall be supplied in hard as well as soft copy for the system. Minimum 6 sets of full documents shall be supplied by the tenderer in hard copy. All documents and manuals shall be in English language only.

The following documents for the complete system shall be supplied and approved by Purchaser/Engineer in order to understand and use the system:

- a) System description, System configuration diagram & Connectivity diagram.
- b) Detail technical manual of the system.
- c) User manual of the system.
- d) Equipment interconnection diagram including details of various interfaces, signaling protocols used at each stage.
- e) Layout of equipment and space requirements.
- f) Installation manual including installation procedure and commissioning.
- g) Supervisory configuration, alarm list, operator interface etc.
- h) Maintenance manual of the system containing:**
 - (i) Preventive maintenance procedures.
 - (ii) Trouble shooting/repairs procedures including failure analysis shall provide exhaustive information about repairs including but not limited to removal, reinsertion of components and cards, repairs, adjustments, tuning, calibration, tools required for a particular operation, test points, including turn-around time for repair and the details of the maintenance

support service centre to be furnished in the bid and all other maintenance related details.

- (iii) Expansion possibilities of the system without causing deterioration in the system performance.
- (iv) Any other data, document not specifically mentioned, but required for the satisfactory testing, installation and commissioning, operation and maintenance of the system shall be provided.
- (v) Documents to be supplied after trial runs but before System commissioning (Acceptance of the System by Purchaser/Engineer).

6.3 DESIGN GUIDELINES

- i) All equipment shall have sufficient number of alarms and supervisory indications and shall be provided with self-diagnostic facilities. All alarms and monitoring & diagnostic facilities shall be built-in & shall be displayed on the front panel of the equipment for ease of maintenance. It shall be possible to transmit these indications, parameters to the control station / NMS on real time basis.
- ii) The healthy condition of the units shall be displayed by green LEDs, unhealthy condition by red LEDs.
- iii) For important switches, the maintenance personnel shall provide controls on the front panel with suitable safeguard to avoid accidental operation. Manual changeover should be performed by more than one sequential operating procedure to avoid accidental operation.
- iv) All equipment shall be immune to EMI; RFI interference generated by any nearby source & shall meet the latest international standards in this regard.
- v) The equipment shall be capable of functioning with minimum maintenance and shall be preferred to have no requirement of any preventive maintenance.
- vi) All PCBs used shall be glass epoxy type and shall not chip owing to repeated soldering/ desoldering. The PCBs shall not warp on any account.
- vii) All wiring-including field interconnection wiring shall be cabled and clamped to the chassis. The wiring shall follow standard color-code. All patch cords shall be provided with connectors matching to the cable used and shall have identification markings.
- viii) All sub-assemblies or modules, switches and controls and the circuit components shall be so mounted as to permit their replacement without appreciable disturbance to other components.
- ix) If the vendor is not using distributed power supply system on individual module basis then the Power supply cards shall be duplicated (1+1). However one standalone power supply card shall be able to run the system for its entire lifetime.

- x) All equipment sub racks, housings shall be provided with antistatic wristbands, if required for safe handling of Cards.
- xi) The equipment should have modular design and should be configurable in number of operational modes to perform complex and different network functions without need of any additional software.
- xii) The nodes (stations) should be hitless i.e. removing or inserting plug-in-units must not affect the existing traffic on other units.
- xiii) It is required that the laser transmitter is automatically shut down when the incoming signal is missing.

CHAPTER-4

A. COMMERCIAL TERMS & CONDITIONS

1. Offer letter and Validity of offer

- 1.1 The bidder shall complete the offer letter (Chapter 1) and the Price Schedule (Chapter 2) furnished in the tender documents, indicating the goods to be supplied, description of the goods, associated technical literature, quantity and prices etc.
- 1.2 The offer should remain valid for a minimum period from the date of opening of tender including the date of opening as indicated in Bid Data Sheet (BDS) Chapter 5.

2. Warranty

2.1 The warranty would be valid for a period as indicated in Bid Data Sheet (BDS) Chapter 5. The supplier shall warrant that stores to be supplied shall be new and free from all defects and faults in material, workmanship and manufacture and shall be of the highest grade and consistent with the established and generally accepted standards of materials of the type ordered and shall perform in full conformity with the specifications and drawings. The supplier shall be responsible for any defects that may develop under the conditions provided by the contract and under proper use, arising from faulty materials, design or workmanship such as corrosion, inadequate quantity of material to meet equipment requirements, inadequate contact protection, deficiencies in design and/ or otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser who shall state in writing in what respect the stores are faulty.

2.2 If it becomes necessary for the contractor to replace or renew any defective portion/portions of the supplies under this clause, the provisions of the clause shall apply to the portion/portions of the equipment so replaced or renewed or until the end of the above mentioned period or twelve months, whichever may be later. If any defect is not remedied with in 1-2 days, the conditions of clause 5.2, Annexure-C of Chapter-7 shall be applicable.

2.3 Replacement under warranty clause shall be made by the contractor free of all charges at site including freight, insurance and other incidental charges.

The tenderer shall arrange the warranty certificate from OEM / OSSP including third party items.

2.4 Warranty Support

2.4.1 Material for repair during Warranty Period shall be handed over /taken over to contractors engineer at mutually agreed RailTel location.

To enforce fulfillment of support objectives, bidder shall make available services of qualified engineer(s) at the Data Center / location to be decided by RailTel to the satisfaction of RailTel. The cost for Technical Engineering support etc may be quoted as provided for in SOR. The Contractor's Engineer shall be responsible to identify the fault and advise corrective measures and ensure that defective cards are replenished. The cost of cards repairs etc. shall be included in the quoted bid price towards warranty.

During the warranty period, the contractor shall remain responsible to arrange replacement within 30 days and for setting right at his own cost any equipment installed by him, which is of defective manufacture or design or becomes unworkable due to any cause whatsoever. The decision of the RailTel's representative in this regard to direct the contractor to attend to any damage or defect in work shall be final and binding on the Contractor. In case contractor fails to replace any faulty part within 30 days period, penalties will be imposed as per clause 5.2 of Annexure-C.

2.4.2 During the warranty period, the contractor shall be responsible to the extent

expressed in this clause for any defects that may develop under the conditions provided for by the contract and under proper use, arising from faulty materials, design or workmanship in the plant, or from faulty execution of the plant by the contractor but not otherwise and shall remedy such defects at his own cost when called upon to do so by the Purchaser Engineer who shall state in writing in what respect the portion is faulty.

- 2.4.3 During the warranty period, contractor should stabilize the working of the system. Purchaser has the right to extend the period of warranty free of cost till the system stabilizes and works satisfactorily for a reasonable period of time. If during the time any equipment etc. is to be added or deficiencies are to be rectified to make the system work trouble free, the same also will have to be done by the contractor at no cost to RailTel as to make good all the deficiencies.

2.5 Maintenance Supervision: Not Used.

3. Long Term Maintenance Support / Annual Maintenance Contract (AMC)

- 3.1 Tenderer/OEM/OSSP shall provide maintenance support after successful completion of the warranty obligations for a minimum period as mentioned in BDS (Chapter-5). The long term maintenance support shall be comprehensive and include all hardware and software of equipment etc. supplied against this contract. RailTel should be extended the benefits of software update/up-grades made by OEM/OSSP on the system from time to time to improve performance. During this period the scope of work as mentioned in clause 2 & its sub-clauses, above, will be applicable.
- 3.2 Tenderer/OEM/OSSP shall be paid as per rates mentioned in BDS (Chapter-5) towards Long Term Maintenance Support, to undertake repairs/replacements of all type of module/card/assembly/subassembly and update/upgrade of software released during this period and/or which may fail in the system after the warranty. AMC would have to be valid for minimum period as mentioned in BDS **after** the warranty. In case a tenderer quotes AMC rates lower than the rates mentioned in BDS, and in case he wins the contract, his project cost will be reduced arithmetically and proportionately by differential AMC cost & he will be paid accordingly. AMC charges to him, however be paid as per illustration referred in BDS.
- 3.3 Separate agreement for AMC after warranty period shall be entered with tenderer by RailTel. A fresh Bank Guarantee for a value of 10% of the value of the AMC contract's annual value valid for a period of 4 months beyond the AMC period from the date of issue of LOA shall be required to be submitted by OEM/Tenderer for due fulfillment of long term maintenance support obligation.
- 3.4 Not Used.
- 3.5 Quarterly payment for AMC Charges would be made by RailTel after successful completion of AMC Services of that quarter and on the certificate furnished by concerned RailTel representative.

Note: The acceptance of the above clause is mandatory and specific acceptance from OEM / OSSP is required to be enclosed as per Form no.3. Any deviation / non acceptance will lead to rejection of the bid summarily.

- 3.6 Detailed standard conditions applicable for the Annual Maintenance Contract between RailTel and the Contractor are given in Annexure-C, Chapter-7.

4. Delivery Period

The materials as per SOR are required to be delivered within period and at location as indicated in Bid Data Sheet (BDS, Chapter 5).

Tenderer will be given extra time for installation & commissioning to be decided in mutual consultation with RailTel. The installation and commissioning shall, however, be completed within period as indicated in Bid Data Sheet (BDS, Chapter 5). For items that cannot be installed for want of site readiness or as per the decision of RailTel, the same have to be returned to RailTel stores by the Tenderer. Road permit will be facilitated by RailTel and shall issue necessary request letter etc. Tenderer are required to obtain the road permit. However, it has no bearing on delivery period.

- 4.1 RailTel Region's Details: Not Used.

5. Payment Terms

- 5.1 75% payment of the value of the **hardware items** and 20% payment of the value of the **software items** against LOA/Sub PO/PO would be made on receipt of material by the consignee (at site /the stores, to be decided by RailTel) duly inspected and on submission of the following documents subject to any deductions or recovery which RailTel may be entitled to make under the contract:

- Invoice.
- Delivery Challan.
- Excise Gate pass/Excise Invoice or Equivalent.
- Packing list.
- Factory Test Report.
- Purchaser's Inspection certificate.
- Consignee receipt.
- Warranty certificate of OEM/OSSP.
- Insurance certificate.
- A certificate duly signed by the firm certifying that equipment/ materials being delivered are new and conform to technical specification.
- Undertaking for fall clause.

- 5.2 Not Used.

- 5.3 15% payment of the value of hardware items and 20% of the value of software items of the LOA/Sub PO/PO shall be made by RailTel on Installation at site, 5% payment of value of hardware items and 50% of the value of software items of the LOA/Sub PO/PO on issue of Provisional Acceptance Certificate (PAC) and the last 5% payment of the value of hardware items and 10% of the value of software

items of the LOA/Sub PO/PO shall be made by RailTel on issue of Final Acceptance Certificate (FAC) which will be issued by GGM/DNM/CO.

(15% + 5 %) payment of value of hardware items of the Sub PO/PO which could not be installed for want of site readiness or as per the decision of RailTel, will be made on issue of PAC and remaining 5% on issue of FAC.

5.4 Accounting unit/bill passing unit for the supplies under SOR is GGM/DNM in RailTel/CO. Bills to be submitted to the GGM/DNM/CO for certifying receipt of material & services, for passing for payment.

5.5 Form “C” shall be issued for respective stations, if required, by RailTel.

5.6 The break up of taxes has to be furnished and same should be reflected in the bills so that any CENVAT/input credit can be availed by RailTel.

5.7 Payment of Services Items

5.7.1 Payment for Installation, Implementation, Customization, Integration of AAA and B/OSS Infrastructure for Wi-Fi and Broadband Services for RailTel”

5.7.1.1 Payment of SOR item no. 6 shall be made by RailTel on successful Installation.

5.7.1.2 30% payment of SOR item no. 7 shall be made by RailTel on successful Installation, 60% on issue of PAC and final 10% on issue of Final Acceptance Certificate.

5.7.1.3 20% payment of SOR item no. 8 shall be made by RailTel on successful Installation, 40% on issue of PAC and 10% on issue of Final Acceptance Certificate. Final 30% payment against SOR item no. 8 shall be made after integration of AAA and B/OSS Infrastructure System with other Modules in two subsequent phases in next 18 months from the date of LOA/PO.

5.7.2 Payment for Training:

Payment of SOR item no. 9 & 10 as detailed in the tender document shall be made by RailTel on successful completion of specified trainings.

5.7.3 Payment for Support Engineer and O&M:

Charges against SOR item no. 11 shall be paid on quarterly basis by the concerned in-charge of Data Center/CNOC after completion of period within 30 days from the date of invoicing subject to adherence to the SLAs mentioned in this tender document subject to any deductions or recovery (which the RailTel may be entitled to make under contract) through RTGS.

5.7.4 Payment for Long Term Maintenance / Annual Maintenance Contract (AMC):

Payment of SOR item no. 12, 13 & 14 would be made quarterly by RailTel after satisfactory completion of AMC Services of that quarter and on certificate furnished by concerned RailTel's representative.

6. Performance Bank Guarantee (Security Deposit)

- 6.1 The tenderer is required to submit a Performance Bank Guarantee (PBG) within 15 days of the issue of LOA/Sub PO/PO as per BDS (chapter-5) for the satisfactory performance of materials covered in SOR given in Chapter 2 valid for a period of 4 months beyond warranty period. The earnest money shall be released on submission of PBG. The Proforma for PBG is given in Chapter 6 Form No. 1. If the delivery period gets extended, the PBG should also be extended appropriately.

Extension of time for submission of PBG beyond 30 (thirty) days and up to 60 days from the date of issue of LOA/PO/Sub PO may be given with the approval of contract signing authority. However, a penal interest of 15% per annum shall be charged for the delay beyond 30 (thirty) days, i.e. 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PBG even after 60 days from the date of issue of LOA/PO/Sub PO, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender of the work.

- 6.2 The Performance Bank Guarantee (security deposit) will bear no interest.
- 6.3 This PBG would be released after satisfactory completion of contract including warranty period and only after submission of 10 % PBG towards AMC as per the clause above for "Long Term Maintenance Support".

7. Taxes & Duties

- 7.1 The price quoted in the offer should be firm, fixed indicating the breakup and inclusive of all taxes & duties like import, custom, C.V.D., Anti-Dumping duty(if any), ED & sales tax, VAT etc. The offer should be inclusive of packing, forwarding, freight upto destination, insurance charges.
- 7.2 The Octroi / entry tax shall be paid extra as per actual on production of proof of payment / document.
- 7.3 Anti-Dumping duty if applicable on the equipment proposed to be supplied by OEM/Tenderer as per extant instructions of Ministry of Commerce/Finance Government of India, has to be borne by the tenderer and shall be deducted from the amount payable to the contractor at the time of making payment to the firm, if this duty amount is paid to Custom Authority by RailTel.
- 7.4 The imposition of any new and/or increase in the aforesaid taxes, duties levies (including fresh imposition of any other Tax like Goods and Service Tax-GST) is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the bidder thereupon necessarily and properly pays such taxes/levies/cess, the bidder shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of bidder attributable to

delay in execution of work within the control of bidder. The bidder shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to RailTel that the same is given pursuant to this condition, together with all necessary information relating thereto. In the event of non-payment/default in payment of any of the above taxes, RailTel reserves the right to with-hold the dues/payments of bidder and make payment to local/state/Central Government authorities or to labourers as may be applicable.

7.5 After imposition of GST as explained in Clause 7.4 above, bidder shall issue cenvatable invoice to RailTel for availing proper credit of CGST / SGST / IGST. GST will not be reimbursed in the absence of cenvtable invoice.

7.6 In the event of decrease / relaxation and / or waiver of any of the existing / prevailing taxes), duties, levies, cess by Central / State Govt. Or any other statutory body(ies), after the last stipulated date for the receipt of tender including extension (if any), and the bidder thereupon has been paid or has raised claims of such taxes), duties, levies, cess; such sums shall be recovered / deducted (from claims raised but which has not been paid) effective from the date as reckoned in the relevant statutory order / law / ordnance etc. The bidder, shall, within a period of 30 days of any such waiver/relaxation/decrease in taxes), duties, levies, cess, give a written notice thereof to Railtel stating the statutory change with documentary proof thereto. Provided always that RailTel shall have full powers to effect recovery/deduction on account of any such statutory change even if bidder has not intimated in the event when any such statutory action comes to his notice.

8. Insurance

8.1 The Contractor shall take out and keep in force a policy or policies of insurance from the date, the delivery of material starts (including the transit portion) against all liabilities of the Contractor or the Purchaser. The contractor shall take out and keep in force a Policy or policies of Insurance for all materials covered in schedule of requirement irrespective of whether used up in the portion of work already done or kept for the use in the balance portion of the work until such material are provisionally handed over to RailTel. The goods will be issued by purchaser to supplier and risk of goods shall remain with supplier until the issue of PAC by RailTel. Insurance policy has to be kept valid by the contractor till issue of PAC by RailTel.

8.2 The Contractor should insure the stores brought to site, against risks in consequence of war and invasion, as required under the Emergency Risk (Goods) Insurance Act inforce from time to time.

8.3 It may be noted that the beneficiary of the insurance policy should be RailTel or the policies should be pledged in favour of RailTel. The contractor shall keep the policy/policies current till the equipment are handed over to the purchaser. It may also be noted that in the event of contractor's failure to keep the policy current and alive, renewal of policy will be done by purchaser for which the cost of the premium plus 20% of premium shall be recovered from the contractor.

9. Liquidated Damages

The timely delivery is the essence of this tender. Liquidated damages will be applicable at the rate of half percent per week or part thereof for undelivered portion of SOR subject to a maximum of 10% of the cost of LOA for any reason whatsoever attributed to failure of tenderer. RailTel will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.

10. Transportation

The rates quoted should be CIP destination for delivery at RailTel Data Centers detailed in BDS (Chapter-5).

11. Statutory Deduction

These will be made at source as per the rules prevalent in the area of work.

12. Qualification Criteria

Detailed in Chapter-4B.

13. Foreign Exchange & Custom Clearance

13.1 Import license, if required, will be provided to the contractor in connection with this contract.

13.1.1 Not Used.

13.1.2 Not Used.

13.2 Bidder while quoting the prices shall include all expenses like custom duty, anti-dumping duty etc. leviable (will indicate the current prevalent rates), custom handling charges, storage, transportation, insurance, etc. in the quoted prices.

In case, Custom duty is to be paid by RailTel directly to custom authorities, such custom duty paid by RailTel shall be deducted from the next bill of supplier/tenderer. Supplier shall, however, have to undertake custom clearance on behalf of RailTel.

14. Consortium & Joint Venture Bids

-Deleted

15. System Performance Guarantee

15.1 The tenderer shall give unqualified and unconditional guarantee that when the equipment / material supplied by him is installed and commissioned at site, it shall achieve the desired objective and that in the event of performance of the system when installed not complying with the end objective or with the specifications, he shall provide further inputs to enable the RailTel to realize the end objectives with full compliance of the specifications contained in

these documents. No additional payment will be made to the contractor for supply of any additional goods and service required in this regard.

- 15.2 This certificate in the Proforma given in Chapter 6, Form No. 2, shall accompany the final offer. Absence of this certificate which will form part of the agreement shall disqualify the tenderer automatically.

16. Evaluation of Offer

Detailed in Chapter-4B.

17. Security Considerations & Security Agreement

- 17.1 While evaluating the tender, regards would be paid to National Defence and Security considerations.

- 17.2 The directives issued from time to time by the Govt. of India on security considerations shall be applicable to the present tender. Accordingly, the successful tenderer (SI/OEM/OSSP) shall comply with the provisions stated in such directives and shall have to enter into an agreement with RailTel. The tenderer must submit a declaration along with their bid for compliance of this clause.

17.3 The System for customers

This system is being provided to meet the requirement of RailTel's customers including NIC for National knowledge Network and further requirement of defence and other strategic sectors of Government along with its internal use. Accordingly, the system shall take into consideration the National Security requirement and National Security aspects indicated by these key customers.

18. Purchaser's Right to Vary Quantities

- 18.1 The purchaser shall be at liberty to enhance or reduce the quantity mentioned in the LOA/Sub PO/PO as indicated in Bid Data Sheet (BDS) Chapter 5 without assigning any reasons. The bidder shall comply with such modifications unconditionally provided these are made before completion of the deliveries under the LOA/SPO/PO. Any such change in quantity shall have no impact on the rates mentioned in the LOA/SPO/PO for any such item.
- 18.2 RailTel would also enter into Rate Contract with the firm to whom the contract is awarded for catering to additional requirement of Equipment / Card / Software / Module as and when arise in future. Rate Contract on the successful tenderer would be placed separately and would be operative from the date of PAC and would be valid for a period of 12 months. This Rate Contract would be at the same rates as finalized in main contract. During the validity of Rate Contract, RailTel will place Sub Purchase Orders for items detailed in SOR, as per requirement. The total value of all the Sub Purchase Orders under Rate Contract shall be restricted to 50% of the contract value for these SOR items, however, there is no guaranteed off take against this Rate Contract. The supplier shall have to supply the supply items against these Sub Purchase Orders within 8 weeks from the date of issue of such Sub Purchase Orders and should submit a

Performance Bank Guarantee (PBG) within 15 days of the issue of such Sub Purchase orders @ 10% of the value of the Sub PO as per proforma given in Chapter 6, Form No.1. A standing Performance Bank Guarantee of Rs. 10 lakh for due fulfillment of the rate contract with validity of four months beyond contract period will be submitted by the tenderer within 15 days of issue of LOA for Rate Contract. Terms & conditions of this tender document will be applicable for the Sub POs issued against rate Contract, if any. The payment conditions against Rate Contract will be as under:

18.2.1 If Services are not involved, 95% payment shall be made after delivery of material, on submission of documents as per clause 5. Remaining 5% payment shall be released after expiry of one year from the date of delivery.

18.2.2 If Services are involved, payment terms & conditions will remain the same as in clause 5 above.

19. Purchaser's Right to accept any offer / Bid and to reject any or all offer/ Bid

19.1 The Purchaser reserves the right to accept or reject any offer / bid, and to annul the bidding process and reject all offers / bids, at any time prior to award of order without assigning any reason whatsoever and without thereby incurring any liability to the affected bidder or bidders on the grounds for the Purchaser's action.

20. Execution of LOA/Sub PO/PO

20.1 The quantities of items indicated in the schedule of Requirements, are indicative. Purchaser will issue an LOA to the successful bidder for the quantities indicated in Schedule of Requirements.

20.2 The issue of LOA in favour of the successful bidder shall constitute the intention of the purchaser to enter into contract with the bidder.

20.3 The successful bidder has to submit the copy of the LOA duly signed on each page including Annexures as a token of acceptance & will submit the Performance Bank Guarantee as per Clause no. 6 for due fulfillment of the LOA.

20.4 If the successful bidder fails to submit the accepted copy of LOA and required PBG within 15 days from the date of issue, it shall constitute a breach of the agreement affected by the acceptance of the tender in which case the full value of the earnest money accompanying the tender shall stand forfeited without prejudice to any other rights or remedies. The Tenderer shall also submit the Type Test documents, test plan, Implementation plan etc, within this 15 days period.

20.5 In the event of any tenderer whose tender is accepted and refuses to execute the LOA as herein before provided, RailTel may determine that such tenderer has abandoned the Purchase Order and thereupon his tender and acceptance thereof shall be treated as cancelled and RailTel shall be entitled to forfeit the full amount of the Earnest Money and to recover the damages for such default.

- 20.6 The tenderer shall not be allowed to sub-contract the work under this project to any third party except to OEM/OSSP.
- 20.7 The selected partner to provide dedicated Onsite specialist throughout the project duration and functions as a project team member in partnership with implementation partner to deliver IT Service Management (AAA and B/OSS Infrastructure), to deliver following benefits:
- 20.7.1 Best practices are reviewed, recommended, instituted and implemented for the application throughout the project.
- 20.7.2 Ensures OEM recommended best practices are followed by implementation partner.
- 20.7.3 Architecture and solution design validation.
- 20.7.4 Use cases & customization Document.
- 20.7.5 Review the implementation plan along with the Implementation partner PM to identify and highlight dependencies and risks.
- 20.7.6 Participate in steering committee to provide project visibility and to discuss potential enhancement opportunities & risks, for the project.

Note:

The RFP response must contain name, qualification and experience of certified personnel with certification who will be dedicated for this project.

- 20.8 On completion of work, OSSP will issue a certificate implying that the work has been executed in accordance with the standard global practices in the telecom sector and are as per their design.

21. Annulment of Award

Failure of the successful bidder to comply with the requirement of various clauses of tender document shall constitute sufficient ground for the annulment of the award and forfeiture of EMD in which event the Purchaser may make the award to any other bidder at the discretion of the Purchaser or call for new offers/ bids.

22. Earnest Money Deposit (EMD)/ Bid Security

- 22.1 The tenderer shall furnish a sum as given in Bid Data Sheet (BDS) Chapter 5 as Earnest Money in the form of Demand Draft from any scheduled bank in India in favour of "RailTel Corporation of India Limited" payable at New Delhi which should remain valid for 45 days beyond the bid opening date.
- 22.2 The EMD may be forfeited if a bidder withdraws his offer or modifies the terms and conditions of the offer during validity period and in the case of a successful bidder, if the bidder fails to accept the Letter of Acceptance (LOA) and fails to

furnish performance bank guarantee (security deposit) in accordance with clause 6.

- 22.3 Offers not accompanied with valid Earnest Money shall be summarily rejected.
- 22.4 Earnest Money of the unsuccessful bidder will be discharged / returned as promptly as possible but not later than 30 days after the expiry of the period of offer / bid validity prescribed by the Purchaser.
- 22.5 The successful bidder's EMD will be discharged upon the bidder's acceptance of the Advanced purchase order satisfactorily and furnishing the performance bank guarantee in accordance with clause 6.
- 22.6 Earnest Money will bear no interest.
- 22.7 **For Micro and Small Enterprises (MSEs)**
 - 22.7.1 Certain benefits/preferential treatment shall be extended to the registered MSEs as per guidelines issued in the latest notification of Ministry of MSME/ Government of India.
 - 22.7.2 MSEs who are interested in availing themselves of these benefits will enclose with their offer the proof of their being MSE registered with any of the agencies mentioned in the notification of Ministry of MSME.
 - 22.7.3 The MSEs must also indicate the terminal validity date of their registration.
 - 22.7.4 Failing 22.7.2 and 22.7.3 above, such offers will not be liable for consideration of benefits detailed in the notification of Government of India.

23. Preference to Domestic Manufacturers for Telecom Equipment

"Preference to domestically manufactured electronic goods in procurement due to security considerations" shall be applicable as per Government of India policy as on the date of opening of price bid. The manufacturer claiming to qualify under the scope of such rules for PMA (Preferential Market Access) must submit the declaration of VA (Value Addition) as required under the issued notification for the specified period as detailed in BDS.

24. Offer/Bid Prices

- 24.1 The bidder shall give the prices indicating all levies and taxes, packing forwarding, freight and insurance etc. The basic unit price and all other components of the price need to be individually indicated against the goods it proposes to supply under the tender document as per schedule given in Chapter 2. The price shall be quoted in Indian Rupees FOR/CIP destination. Octroi will be payable at actual on production of proof of payment but delivery within Octroi limits must be done only with prior approval of GGM/DNM in RailTel/CO.
- 24.2 The break up of price of each item of SOR in terms of basic Unit price, Excise duty, Sales Tax, Freight, Forwarding, Packing, Insurance and any other

Levies/charges already paid or payable by the tenderer shall be quoted in the SOR Chapter 2. Any changes in statutory duties/taxes after opening of technical bid will be to RailTel's account within the contracted delivery period.

24.3 All prices and other information like discounts etc. having a bearing on the price shall be written both in figures and in words in the prescribed offer form (SOR). In case of difference in words and figures, the amount written in words will be taken into consideration. In the event of any discrepancy between total unit cost and total cost, the value shown in total unit cost will be taken for evaluation purpose.

24.4 **Fall Clause:-** The tenderer shall undertake that in case the tenderer offers same type of material at a lower price to any other purchaser including Central/State/ Government Organization or Public Sector Undertaking, during the validity of Advanced purchase order, the equal benefit of lower prices will be passed on to RailTel. The tenderer will submit an undertaking to this effect while claiming the payment.

25. Clause wise Compliance

25.1 Clause wise compliance statement of the tender document shall be enclosed with the offer along with the technical literature of the material and other documents in support of relevant clauses.

26. Inspection:

26.1 Pre-shipment / pre-dispatch inspection shall be carried out at manufacturer's / tenderer's works by RailTel's authorized representative. Traveling, lodging & boarding expenses of RailTel's representative and charges for 3rd party inspection if any shall be borne by RailTel but necessary facilities to carry out tests/witness inspection shall be provided by the manufacturer/ tenderer, free of cost.

26.2 Along with inspection call, the tenderer/manufacturer shall submit details of test procedures, test programme, test parameters together with permitted values, etc., and their Quality Assurance Plan.

26.3 In case material fails during inspection, the fresh lot of material shall be offered without any extra cost, by the manufacturer/tenderer. In such a case, total cost of re-inspection including travel, lodging & boarding of the inspecting officials shall be to manufacturer's/ tenderer's account.

27. Force Majeure

27.1 If during the Agreement, the performance in whole or in part, by either 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 EVENTS), provided notice of happenings of any such EVENT is given by the

affected party to the other, within twenty one (21) days from 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 Agreement shall be resumed as soon as practicable, after such EVENT comes to an end or ceases to exist.

- 27.2 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 Agreement. Neither party shall be liable for any breach, claims, damages against the other, in respect of non-performance or delay in performance as a result of Force Majeure leading to such termination.

28. Settlement of Disputes and Arbitration

If any matter arises between the parties about this agreement then the parties shall meet to discuss the matter and shall negotiate in good faith to endeavour to resolve the matter; however if any matter arising has not been resolved by the parties within thirty (30) days after the date the party raising the matter gave notice of it to the other party then the matter shall be submitted by either party to Arbitration.

- 28.1 Arbitration shall be held in New Delhi, India. The arbitration shall be conducted as per the provisions of Indian Arbitration and Conciliation Act 1996 and any statutory modification or re-enactment thereof.
- 28.2 The arbitration shall be conducted by a sole arbitrator appointed by CMD/RailTel.
- 28.3 The arbitration proceedings shall be conducted in the English language.
- 28.4 The decision of the arbitrator thereon shall be final, conclusive and binding on both the parties to the Agreement.
- 28.5 Each party shall bear the cost of preparing and presenting its case, and the cost of arbitration, including fees and expenses of the arbitrators, shall be shared equally by the parties unless the award otherwise provides.

29. Governing Laws:

The LOA/APO/Sub PO/Purchase Order 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.

30. Termination for Default

30.1 The purchaser may, without prejudice to any other remedy for breach of contract, by written notice of default, sent to the Tenderer, terminate this contract in whole or in part.

- a) If the tenderer fails to deliver any or all of the goods within the time period(s) specified in the contract.
- b) If the tenderer fails to perform any other obligation(s) under the contract; and
- c) If the tenderer, in either of the above circumstance(s) does not remedy his failure within a period of 30 days (or such longer period as the Purchaser may authorize in writing) after receipt of the default notice from the Purchaser.

31. Risk & Cost

If the contractor fails to deliver the equipment/system or honour the contractual commitment within the period fixed for such delivery in the contract, the Purchaser may terminate the Purchase order/contract in whole or in part, the Purchaser may proceed to purchase, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered at no risk and cost to contractor. However, the security deposit of tenderer shall be forfeited/ Performance Bank Guarantee shall be encashed. The failed tenderer shall not be permitted to take part in the tender for balance work.

31.1 Limitation of Liability

The Maximum Liability of tenderer to any Loss/Damages to RailTel including Liquidity Damages and Performance Guarantee shall be limited to 100% of Value of contract.

32. Termination for Insolvency

The purchaser may at any time terminate the LOA/Sub PO/PO by giving written notice to the tenderer, without compensation to the tenderer, if the tenderer becomes bankrupt or otherwise insolvent as declared by the competent court provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Purchaser.

33. Rates During Negotiation

The tenderer/s shall not increase his/their quoted rates including payment terms in case the RailTel Administration negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted will be binding on the tenderer/s.

34. Pre- Bid Conference & Clarification Requests

As per BDS (Chapter-5) and clause 22, Chapter-4C of tender document.

35. Submission of Offers

- 35.1** All offers in the prescribed forms should be submitted online before the time and date fixed for the receipt of the offers.
- 35.2** In case the schedule of requirement quoted by tenderer is incomplete with reference to tender document, the offer is liable to be rejected.
- 35.3** ATTESTATION OF ALTERATION: No scribbling is permissible in the tender documents. Tender containing erasures and alterations in the tender documents are liable to be rejected. Any correction made by the tenderer/tenderers in his/their entries must be signed (not initialed) by him/them.
- 35.4** The tenderer shall submit digitally signed copy of Tender Document / Corrigenda downloaded from TCIL e-Tendering Portal.
- 35.5** The offer shall be submitted in two parts, Part-I - Credential Bid (Techno-Commercial Bid) & Part-II – Price Bid as per instructions given in chapter-4C.
- (a) Part-I “CREDENTIAL BID”** -The bid shall consist of the following:-
- 1) Offer Letter complete.
 - 2) Schedule of Requirements with quantities but with prices blanked out (this will be a replica of price bid with prices blanked out).
 - 3) Earnest Money in prescribed form.
 - 4) Audited balance sheet duly attested by Notary Public.
 - 5) Constitution of Firm and Power of Attorney.
 - 6) Clause wise compliance to tender conditions.
 - 7) Copies of purchase orders and other documents in support of meeting qualifying criteria.
 - 8) Complete technical data and particulars of the system offered, as specified in the Tender papers together with descriptive literature, leaflets, Drawings, if any, complete with list etc.
 - 9) Documentary proof of system being proven and working for more than 3 years in India along with user certificate and Contact Details of user/firm.
 - 10) Technical proposal of tenderer in conformity with system design or alternative proposal of the tenderer, if any.
 - 11) System Performance Guarantee as per Chapter 6, Form no. 2
 - 12) The manufacturer claiming to qualify under the scope of rules for PMA (Preferential Market Access) must submit the declaration of VA (Value Addition) as required under the issued notification for the specified period as detailed in BDS.

- 13) Un-priced list of all possible interfaces/ modules/ cards/SFPs/XFPs etc which the offered equipment / system can support / required for optimization, if any, but not ordered by RailTel or not included in the above SOR
- 14) Tenderer should submit the soft copy (Word/Excel/PDFs format) of offer online on TCIL e-Tendering Portal. Bill of Material (BOM) must be in PDF as well as Excel format.
- 15) Tenderer should submit the details of technical credentials (of supply of the system and satisfactory working of offered system against clause 2.1.3 & 2.1.6 respectively of chapter-4B) and financial credentials (of turnover against clause 2.1.7 of chapter-4B) in Form-5 of Chapter-6.
- 16) Any other information desired to be submitted by the tenderer.

Note: The Credential Bid Part-I under no circumstances should contain any rates offered. Otherwise the tender offer shall be summarily rejected.

- (b) **Part-II “Price Bid”** Shall contain the offer letter and the price of each item quoted exactly according to the proforma and schedule of requirements.

36. Constitution of Firm and power of Attorney

36.1 Any individual(s) signing the tender or other documents connected therewith should specify whether he is signing:-

- (a) As sole proprietor of the concern or as attorney of the sole Proprietor.
- (b) As a partner or partners of the firm.
- (c) As a Director, Manager or Secretary in the case of Limited Company duly authorized by a resolution passed by the Board of Directors or in pursuance of the authority conferred by Memorandum of Association.

36.2 In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the tender and all other connected documents. The original Power of Attorney or other documents empowering the individual or individuals to sign should be furnished to the Purchaser for verification, if required.

36.3 The RailTel will not be bound by Power of Attorney granted by the tenderer or by the changes in the composition of the firm made subsequent to the execution of the contract agreement.

36.4 In case where the Power of Attorney partnership deed has not been executed in English, the true and authenticated copies of the translation of the same by Advocate, authorized translators of Courts and Licensed Petition Writers should be supplied by the Contractor(s) while tendering for the work.

36.5 The duly notarised Power of Attorney shall be submitted in original or duly signed.

37. Opening of Tender

- 37.1 Tenderer's Credential Bid (Part-I) will be opened on specified date & time as mentioned in BDS Chapter 5 of the tender in presence of such Tenderers/ Representatives who choose to be present.
- 37.2 After scrutinizing Credential Bid, "Price Bid (Part- II)" will be opened on a time and date to be informed separately in presence of those Tenderers who qualify in "Credential Bid (Part-I)" as per qualifying criteria laid down in Chapter-4B and who choose to be present.
- 37.3 Price Bid (part-II) of those Tenderers who are not found to meet tender conditions will not be opened.

38. Non-Transferability & Non-Refundability

The tender documents are not transferable. The cost of tender paper is not refundable.

39. Errors, Omissions & Discrepancies

The Contractor(s) shall not take any advantage of any mis-interpretation of the conditions due to typing or any other error and if in doubt, shall bring it to the notice of the purchaser without delay. In case of any contradiction only the printed rules, and books should be followed and no claim for the mis-interpretation shall be entertained.

40. Wrong Information by Tenderer

If the tenderer/s deliberately gives/give wrong information in his/their tender which creates/create circumstances for the acceptance of his/their tender the RailTel reserves the right to reject such tender at any stage.

41. The envelope containing any offline documents shall be addressed to the Purchaser at the following address:

**General Manager/Project
RailTel Corporation of India Ltd.
Plot No. 143, Institutional Area,
Sector-44, Gurgaon-122003**

42. The envelope shall bear name of the tender, the tender no. and the words "DO NOT OPEN BEFORE" (due date).
43. Offer / Bid should be submitted online as per instructions given in Chapter-4C of tender document.
- 43.1 In case the date of opening happens to be a holiday, the tender will be received and opened at the same time on the next working day.

CHAPTER-4**B. PQC, QUALIFICATION CRITERIA & EVALUATION OF OFFERS****1. Pre-Qualification Criteria (PQC):**

Pre-Qualification Criteria (PQC) mentioned under this clause is the minimum requirement for any bidder to participate in this tender. The bids of the bidders not meeting PQC will not be evaluated further for relative ranking of offers and will be summarily rejected.

1.1 Non Functional**(a) Turn over:**

- (i) Bidder (SI/OEM): INR 9 Cr for Telecom & IT business in last three financial years.

(b) Experience:

- (i) SI's experience in implementation of AAA and B/OSS Infrastructure System with Indian Telecom Service Provider: references required.
- (ii) OEM's reference for AAA and B/OSS Infrastructure System with Indian Telecom Service Providers or Tier-1 or Tier-2 Telecom Service providers.
- (iii) OSSP/OEM's should have Deployed and Working Solution of AAA and B/OSS Infrastructure for 1 Lakhs Concurrent Users with Indian Telecom Service Providers or Tier 1 or Tier 2 Telecom Service Providers

1.2 Functional Capabilities

SN	Specifications	Compliance FC/NC
1	Solution must have all Radius Functionalities as per the telecom Providers requirement .	
2	Solution offered should have modules for managing key all the key technical capabilities	
3	The Solution should support various mechanisms and protocols to interact with third party SMS Gateway and OSS products using APIs, web services, JDBC connector etc	
4	The Solution should provide a centralized Dashboard that picks up relevant business metrics from the monitoring and service management solution	

SN	Specifications	Compliance FC/NC
5	Process engine must have integration capability with SMS/EMAIL system/OSS/Ticketing	
6	The solution shall support the creation of reports on an ad hoc, daily, hourly, weekly, monthly and annual basis.	
7	System must support HA (hot standby mode)	
8	Offered system must have mobile web interface (with screen adaptation and notification) or App for authentications and should be customizable as per Railtel Requirement from various services being offered through this system	
9	The solution should have capability to create cross launch in context to various internal portals from helpdesk UI.	

1.3 Technical Capabilities

S.No	Description	Remarks if any
1.	Number of Concurrent Subscribers : 1,00,000 Concurrent Users	
2.	OSS-BSS Management Platform: <ol style="list-style-type: none"> End-to-end B/OSS suite of applications for Wifi/Broadband service providers. Modular & AAA billing management suite that enables broadband service providers to rapidly deliver personalized, next generation broadband services. The system should have integrated SMS and payment gateway which should be customizable as per operational needs. Solution should support subscriber base starting from 500K & be capable of scaling to millions of users. Subscriber management with comprehensive store of subscriber demographic, policy, service & billing data with flexible & scalable database Should comply with parent-child hierarchies, as University operations often require classification and grouping of various data structures. For example, subscribers organized by region, department or faculty. Solution should provide all the necessary tools to implement & realize real-time policy control over the network. Policy control based on service type, access policy, 	

	<p>service QoS, quotas, action on quota events.</p> <ul style="list-style-type: none"> i. Intelligent rules engine to determine specific actions as a consequence of policy rules that apply to specific network events as they occur. j. Service plans that aggregate all policies into a single template & link policy control to the billing & charging core. k. Policy & Service Control functionality with Volume Tracking Application (VTA), Fair Usage Policy (FUP) & Quotas. l. Revenue Management & Reporting 	
3.	<p>AAA(Authentication, Authorization and Accounting) system:</p> <ul style="list-style-type: none"> a. Centrally manages subscribers' authentication & authorizes them for appropriate level of service and ensures centralized subscriber management. b. Should support 500,000 subscribers base with 100,000 concurrent users. c. Authenticates Wi-Fi users over RADIUS. d. Generate accounting CDR's. e. Support access policy based on different AVP's f. Support all major RFC g. Should Support Integration with LDAP h. The AAA should support BYOD and adaptive captive portal and splash page from day one. i. Multi-vendor VSA support 	
4.	<p>Captive Portal:</p> <ul style="list-style-type: none"> a. Web-Authentication Capabilities. b. Multiple options for Logout (i.e. URL Hit, Popup Window, Idle Time out etc.) c. Supports Direct Integration with AAA, it may have option of LDAP/Open DB User database for Authentication and Authorization. d. Portal Customization and Personalization with branding capabilities. e. Deployment of Location/Service aware Portal for Branding and localization f. Portal/SMS Notifications <ul style="list-style-type: none"> i. Configurable Message format for SMS notifications as well as Error Messaging for Login and Logout ii. Multi lingual SMS / Email notification and 	

	<p>WIP support</p> <p>iii. SMS and Web Based Self registration interface with support of KYC Norms (using One Time Password - OTP)</p> <p>g. Web based interface for Top up and Renewal using Voucher or Online payment</p> <p>h. Smart detection of device type and Automatic landing to the device specific portal page.</p> <p>i. Portal Language would be Configurable based on Device locale.</p> <p>j. Should Support Forced Redirection of the User to the Registration Page.</p>	
5.	<p>Rating and Charging Requirements:</p> <p>a. Should Support Volume/Time based Billing plan.</p> <p>b. The offered solution should support hybrid plan i.e. both time and volume based plan.</p> <p>c. Should support flexible billing cycles</p> <p>d. The offered solution should support FUP/QoS based plans.</p> <p>e. Supplier shall support to transfer the CDRs to any third party billing system in push/pull mode by open standard FTP/FTAM/SFTP etc.</p> <p>f. Offered solution should support Invoice generation for postpaid type of subscribers</p> <p>g. Customizable Bill & Invoice Template.</p> <p>h. Flexible Taxation Policies to enter Tax Parameters.</p> <p>i. Should Support Electronic Payment Gateway Integration.</p> <p>j. Should Support Custom/Ad-hoc Bill Runs.</p>	

	k. Should support recharge of the subscriber account using vouchers, credit cards, etc.	
6.	Billing Management System/Portal: <ol style="list-style-type: none"> Pre-paid and post-paid billing management system and comprehensive billing view to admin university/campus and users and their usage statistics. System should have functionality of monthly invoice generation for post paid users of campus and universities for monthly payment and reconciliation. Campus/university wise revenue reports montly/quarterly/yearly. Any other information/data as desired. 	
7.	Voucher Management System: <ol style="list-style-type: none"> Supports different voucher types: Paper voucher, E-vouchers, and pre-activated vouchers for short message Supports Paper voucher, real time voucher generation and printing for over the counter sales. Prepaid order based voucher generation with back to back invoicing for voucher order Prepaid model, where reseller/agents can generate vouchers from portal within a given credit limit Configurable Voucher and PIN Format 	
8.	Customer Web Self-Care Portal: <ol style="list-style-type: none"> Web Self Care View as per device type showing usage details. Information on Usage based on subscriber package like Time/Volume, Monetary Units, Current balance available etc. <ul style="list-style-type: none"> Subscriber Package Information Subscriber Billing / Payment Details Recharge/Renewal support Change plan View their usage statistics ie. Bandwidth consumed, speed etc Any other information/data as desired. Help desk ticket creation for users. 	
9.	Admin Portal: <ol style="list-style-type: none"> Tracks users account and their personal and KYC details 	

	<ul style="list-style-type: none"> b. Can generate vouchers. c. Active/Inactive user information i.e. IP , Username etc d. Admin can create/delete subscriber using both plan and voucher. e. Review and approve monthly users invoice. f. User password reset option. g. View usage statistics of users, bandwidth consumed, speed etc. h. Any other information as desired. 	
10.	CRM Support/Ticketing system: <ul style="list-style-type: none"> a. Integration with our existing CRM support or ticketing system. b. CRM support/Ticketing system should be available on self care portal and admin portal. 	
11.	Other features: <ul style="list-style-type: none"> a. Must have Load Balancing and Auto Fail over. b. Must have protection against rogue users with fixed IP addresses on DHCP VLANs. c. Must have DPI and Layer 7 inspection of content to throttle or drop applications/protocols d. Must have Multiple Radius server entries. e. Must have multiple links for WAN load balancing. f. Must have following network identifiers (Ethernet mac, IP, VLAN, Source Ip, Source CIDR, Destination network, PPPoE). g. Must have IPV6 (dual stack). h. Must have PPPoE aggregation in regional, smaller fixed line DSL/FTTH networks. i. Must have following network identifiers (Ethernet mac, IP, VLAN, Source Ip, Source CIDR, Destination network, PPPoE). j. Must have passive bypass in case of H/W failure. k. Must have Cloud Based Configuration so that the Railtel can start Wifi As a Service Model to build Hotspots in the country l. Must have VRF and SSID Based integration with WAG/WLC/Access Points m. Must have Partner Management Module n. Must have the Logs reporting as required for the ISP Compliance and Regulatory Guidelines o. Must have the app based solution for authentications other other functionalities p. Must have the solution to integrated with the 	

	<p>university directory services (if required)</p> <ul style="list-style-type: none"> Should have a APP for mobile and laptop for save username and password so that user don't have to enter username and password every time to get online, the app will automatically connect them when in range of a hotspot. In case OTP based password ,app should have auto fill OTP facility using SMS . 	
12.	Reporting: Should Support Comprehensive Reporting including Financial Reports and Revenue Reports	
13.	User Monitoring & Analytics : User details such as Source IP, Device details including MAC Address, URL Logging, Flow Logs could be monitored /logged and easy to use Search Interface to Search the Logs and Content Filtering if required. NAT and Protocol based log monitoring.	
14.	Installation and maintenance: The installation, configuration and maintenance of the entire system shall be the responsibility of the Bidders. The Authorization, authentication and maintenance of users should be implemented as specified by the university/Client/ RailTel.	
15.	High Availability : Application Components Should be deployed on a HA configuration (Active –Passive) and DR Solution	
16.	Interoperability: shall support interoperability with all the major vendors and solution shall work in multi vendor environment.	
17.	Compliance to DOT guidelines: System should able to provide lawful monitoring information for Internet traffic as per DOT guidelines.	
18.	Monitoring System: The BIDDERS shall create a system for monitoring all the B/OSS modules including access servers and access gateway deployed at the universities.	
19.	Help Desk: BIDDERS shall have a L3 support for dealing with user requests/complaints related to Wi-Fi services.	
20.	SLA: Overall Uptime of Wi-Fi platform should be between 99.95 Uptime	

	Response time for Captive Portal Based Authentication should be ≤ 15 sec. Charging for Visitor Users, Availability of proposed solution components for Charging, CDR availability and correctness should be between 99 - 99.95%	
21.	Interfaces: Standard interfaces like REST API, SOAP, HTTP, RADIUS, SNMP for integrating with IT, Network & third party solutions should be supported.	
22.	Nature of Work involved: The work would involve supply, design, installation and maintenance of completer B/OSS infrastructure for Wifi services at RailTel Data Centers. There should be a NMS to monitor the B/OSS infrastructure componetns placed at RailTel Data Center and any other location on 24x7 basis.	

2. Qualification Criteria:

Qualifying criteria under this clause lays down minimum acceptable qualifications in various areas to ensure that qualified tenderer has necessary experience, technical expertise, equipment and financial and human resources to successfully complete the project. Bids from bidder not meeting these qualification criteria shall be summarily rejected.

2.1 Techno-Commercial Capability:

2.1.1 The bid evaluation will be based on enclosed techno-commercial evaluation matrix:

Attributes	High Level Capabilities	Marks	
Non Functional			
		20%	
Product supplier's Credibility	No. of References in Telco environment, with scale of 1 Millions Concurrent Users	10%	
	Technical Operations Enablement (Support available in India)	5%	
Financial Stability	Financial stability of the vendor	10%	
	Years of existence of vendor	5%	
Product's Credentials			
Product Maturity	Certifications/Accolades & eTOM alignment	5%	
	Technology diversity of the solution & IPV6 compliant	5%	
	Ease of Customization, Manageability & Flexibility	5%	

Attributes	High Level Capabilities	Marks
Architecture	Architecture - SOA based, Layered, Modular & Resilient	10%
	Support for x86 based COTS hardware, virtualized environment support/Cloud readiness	5%
	API availability & COTS Adapters for the OEMs present in RailTel Nw	10%
	DR option, High Availability, Data loss during DR switch over, recovery process, Synching availability between Active-Standby	5%
Scalability	Horizontal & Vertical. Scale of the largest deployment in India	5%
	Logical partitioning for multi tenancy	5%
Delivery Compliance (Products)	SME's past experience & certifications	5%
	SI's ability to execute : to be assessed from past references in India with satisfaction letter	5%
	Onsite OEM SME/SMEs, for requirement gathering and sign off on Use Cases, Customization & deployment Architecture	5%
		100%

2.1.2 The OEM/OSSP should have proven facilities for Engineering, manufacture, assembly, integration and testing of the system and basic facilities with respect to space, Engineering, Personnel, Test equipment, Manufacture, Training, Logistic Supports for at least past three years. Certificate of OEM/OSSP will be required in this regard.

2.1.3 The system being offered in the tender should be proven and should have been working satisfactorily for at least 3 years in India. Certificate from the actual user of the system about the satisfactory performance shall be enclosed with the tender. Contact Details of the actual user/firm shall also be provided by tenderer. The equipment/materials to be supplied against the present tender shall be covered by the performance guarantee of original manufacturer.

2.1.4 RailTel reserves the right:-

- (a) To verify, if so desired, the correctness of documentary evidence furnished by the tenderer.
- (b) To verify the successful operation and performance of qualifying projects and tenderer shall arrange permission for the same.

- (c) To carry out capability assessment of the bidder(s) including referral to in-house information.
 - (d) RailTel shall not be responsible for any delay in the receipt of tenders and reserves the right to accept/reject any or all tenders without assigning any reason.
- 2.1.5 The bidder shall furnish documentary proof of backend support including software upgrades and availability of spares for a period of 5 years from the respective OEMs of the products offered.
- 2.1.6 The tenderer/OEM should submit the details of supply of AAA and B/OSS Infrastructure system executed, along with certificates from the original user for whom the project was undertaken certifying the date of award of contract, date of completion, and the present working state of the system which should clearly bring out expertise in the equipment manufacture. The certificates are to be submitted in original or their true copies duly signed by the tenderer.
- 2.1.7 The annual average turnover of contractual payment received from Telecom / IT business during the last preceding 3 financial years (i.e. current year and three previous financial years) from the date of opening of tender should be a minimum of the value as indicated in Bid Data Sheet (BDS) Chapter 5.
- 2.1.8 Tenderer should produce Audited Balance Sheet and Income statement of all the preceding three financial years.
- 2.1.9 The tenderer shall furnish such documents as to establish the financial soundness of their company. The latest balance sheet audited or certified by a neutral agency shall be furnished.
- 2.1.10 In the event of foreign Original Equipment Manufacturer (OEM) / Original Software Solution Provider (OSSP), Indian Subsidiary is allowed to participate with the experience and financial credential of parent company with specific authorization for doing so from the OEM. The specific authorization addressed to RailTel should be submitted by the tenderer.
- 2.1.11 System Integrators are also allowed to participate in the tender with specific authorization for doing so from System OSSP & OEM. The specific authorization addressed to RailTel should be submitted by the tenderer.

3. Bid Evaluation Criteria

- 3.1 Bid scoring zero in any individual high level capability in clause 2.1.1 above (irrespective of Weightage) will be disqualified from Assessment.
- 3.2 In case of 3rd party bid (other than OEM/OSSP), RailTel reserves the right to cross check any compliance submitted from OEM/OSSP.
- 3.3 Additional features offered by the bidder, over and above the ones asked for in the tender documents, shall not be considered for evaluation of bids.

- 3.4 The tenderer should make available the offered products, if desired during technical evaluation of offered equipment for testing and benchmarking at any testing facility approved by RailTel.
- 3.5 The bidders should quote for all items & the offer will be evaluated in totality. The bidders should indicate brand name, type/model number of the products offered. The system should be supplied as per Technical Specifications given in Chapter-3.
- 3.6 The bidder has to arrange use cases demonstration at customer site to get the appropriate scope as indicated in clause 3.6.1 of chapter-3C.
- 3.7 Technical Selection of bids will be done as per following criteria:**
- 3.7.1 Technical Ranking / Technical Rating should have score of minimum 75 Marks .
- 3.7.2 Price bids of only those bidders will be opened whose score for technical and functional parameters is minimum 75 Marks as per table given in clause 2.1.1 above.
- 3.7.3** Lowest cost for complete system for One Lakh Concurrent Users as per SOR (Chapter-2) will be taken as L1 and will be awarded for Tender

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CHAPTER-4

C. INSTRUCTIONS TO THE BIDDERS

1. General

These are the Special Instructions to the Bidders for e-Tendering.

2. Submission of Bids only through online process is mandatory for this Tender

E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, RailTel has decided to use the portal <https://www.tcil-india-electronictender.com> through TCIL, a Government of India Undertaking. This portal is based on the most 'secure' and 'user friendly' software from Electronic Tender®. **A portal built using Electronic Tender's software is also referred to as Electronic Tender System® (ETS).**

Benefits to Suppliers are outlined on the Home-page of the portal.

3. Tender Bidding Methodology:

Sealed Bid System - 'Single Stage - Two Envelope': In this, bidder has to submit each the bid (Part I –Credential/ Techno commercial Bid and Part II - Price Bid) in separate envelope "ONLINE".

4. Broad outline of activities from Bidders Perspective:

- 4.1 Procure a Digital Signing Certificate (DSC)
- 4.2 Register on Electronic Tendering System® (ETS)
- 4.3 Create Users and assign roles on ETS
- 4.4 View Notice Inviting Tender (NIT) on ETS
- 4.5 Download Official Copy of Tender Documents from ETS (Important)
- 4.6 Clarification to Tender Documents on ETS:
 - (i) Query to RailTel (Optional).
 - (ii) View response to queries posted by RailTel, as addenda.
- 4.7 Bid-Submission on ETS
- 4.8 Attend Public Online Tender Opening Event (TOE) on ETS.
- 4.9 View/Post-TOE Clarification posted by RailTel on ETS (Optional), Respond to RailTel's Post-TOE queries.

For participating in this tender online, the following instructions need to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

5. Digital Certificates

For integrity of data and its authenticity/ non-repudiation of electronic records, and be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC) also referred to as Digital Signature Certificate (DSC), of Class 2

or above, issued by a Certifying Authority (CA) licensed by Controller of Certifying Authorities (CCA) [refer <http://www.cca.gov.in>].

6. Registration

To make use of the Electronic Tender® Portal (<https://www.tcil-india-electronictender.com>), vendor needs to register on the portal (if not registered earlier). Registration of each organization is to be done by one of its senior persons who will be the main person coordinating for the e-tendering activities. In ETS terminology, this person will be referred to as the Super User (SU) of that organization. For further details, please visit the website/portal (<https://www.tcil-india-electronictender.com>), and click on the 'Supplier Organization' link under 'Registration' (on the Home Page), and follow further instructions as given on the site.

Pay Annual Registration Fee as applicable.

Note: After successful submission of Registration details and Annual Registration Fee (as applicable), please contact TCIL/ ETS Helpdesk (as given below), to get your registration accepted/activated.

TCIL Helpdesk

Contact Person/Telephone/ Mobile

Helpdesk Executives: +91-11-26241790 (**Multiple lines**)

E-mail ID: ets_support@tcil-india.com

(Mobile Nos for Emergency only): 9868393775, 9868393717, 9868393792

RailTel Contact-I (for general Information)

RailTel's Contact Person / Designation

Pawan Kumar Sharma, Jt. GM/DNM

Telephone/ Mobile: 9717644497

E-mail ID: pawan@railtelindia.com

RailTel Contact-II (for general Information)

RailTel's Contact Person / Designation

A.K. Sablania, GGM/DNM

Telephone/ Mobile: 9717644015

E-mail ID: asablania@railtelindia.com

7. Bid related Information for this Tender (Sealed Bid)

The entire bid-submission would be online on ETS.

Broad outline of submissions are as follows:

7.1 Submission of Bid Security/ Earnest Money Deposit (EMD)

7.2 Submission of digitally signed copy of Tender Documents/Addenda

7.3 Two Packet (Part I –Credential/ Techno commercial Bid and Part II - Price Bid)

The electronic envelope consists of Main bid and Electronic Form (both mandatory) and Bid Annexures (Optional).

7.4 Online response to Terms & Conditions of Tender.

7.5 (Optional) Online Submission of modification, substitution bids for technical or financial parts, or withdrawal bid.

NOTE: Bidder must ensure that after following above, the status of bid submission must become “Complete” indicating successful submission of the online bid.

8. Offline Submissions:

The bidder is required to submit the following documents offline to RailTel Corporation of India Ltd, Institutional Area, Plot 143, Sector 44, Gurgaon, before due date & time of submission of bids specified in this tender document, in a Sealed Envelope. The envelope shall bear (the tender name), the tender number and the words ‘DO NOT OPEN BEFORE’ (due date & time):

- a) **EMD-Bid Security** in Original, in favour of Railtel Corporation of India, Payable at New Delhi. (with Tender No., Name of Firm & Mob. No. written on back side of DD)
- b) **DD/ Bankers Cheque in original against payment of tender fee** in favour of Railtel Corporation of India, Payable at New Delhi. (with Tender No., Due date of Opening of Tender, Name and contact No. of Firm written on back side of DD)
- c) **Power of attorney** to be submitted in accordance with Clause-36.5, Chapter-4A of Tender Document.
- d) **In case bidder happens to be an eligible MSE**, the documentary evidence for same shall be submitted (clause 22.7, chapter-4A).
- e) Specific authorization addressed to RailTel from the OEM/OSSP for Indian Subsidiary/System Integrator (Clause 2.1.10 & 2.1.11, Chapter-4B).
- f) **Declaration for PMA**, as per clause 23, chapter-4A of tender document.
- g) **System Performance Guarantee** (form no. 2, chapter-6).
- h) **Acceptance for Long Term Maintenance Support** (form no. 3, chapter-6).
- i) Declaration regarding acceptance of clarification issued from Govt. of India (Clause 17.2, Chapter-4A of Tender Document).

NOTE: The Bidder has to upload the Scanned copy of all above original documents as Bid-Annexures during Online Bid-Submission.

9. Submission of Eligibility Criteria related documents

Eligibility criteria related documents viz. TSEC certificate, NSIC certificate and other documents as applicable shall also be scanned and submitted ONLINE. Copy of these documents shall also be submitted in RailTel before Tender opening date & time. Bids without these off line submissions will be summarily rejected.

10. Special Note on Security of Bids

Security related functionality has been rigorously implemented in ETS in a multidimensional manner. Starting with 'Acceptance of Registration by the Service Provider', provision for security has been made at various stages in Electronic Tender's software. Security related aspects as regard Bid Submission are outlined below:

As part of the Electronic Encrypter™ functionality, the contents of both the 'Electronic Forms' and the 'Main-Bid' are securely encrypted using a Pass-Phrase created by the Bidder himself. Unlike a 'password', a Pass-Phrase can be a multi-word sentence with spaces between words (e.g. I love this World). A Pass-Phrase is easier to remember, and more difficult to break. It is recommended that a separate Pass-Phrase be created for each Bid-Part. This method of bid-encryption does not have the security and data-integrity related vulnerabilities which are inherent in e-tendering systems which use Public-Key of the specified officer of a Buyer organization for bid-encryption. Bid-encryption in ETS is such that the Bids cannot be decrypted before the Public Online Tender Opening Event (TOE), even if there is connivance between the concerned tender-opening officers of the Buyer organization and the personnel of e-tendering service provider.

Typically, 'Pass-Phrase' of the Bid-Part to be opened during a particular Public Online Tender Opening Event (TOE) is furnished online by each bidder during the TOE itself, when demanded by the concerned Tender Opening Officers who will open the bid. Else Tender Opening Officer may authorize the bidder to open his bid himself. There is an additional protection with SSL Encryption during transit from the client-end computer of a Supplier organization to the e-tendering server/ portal.

(Mandatory Additional Methods of passphrase submission):

Additionally, the bidder shall make sure that the Pass-Phrase to decrypt the relevant Bid Part is submitted to RailTel in a sealed envelope before the start date and time of the Tender Opening Event (TOE) along with other offline submissions.

11. Public Online Tender Opening Event (TOE)

ETS offers a unique facility for 'Public Online Tender Opening Event (TOE)'. Tender Opening Officers as well as authorized representatives of bidders can attend the Public Online Tender Opening Event (TOE) from the comfort of their offices. For this purpose, representatives of bidders (i.e. Supplier organizations) duly authorized are requested to carry a Laptop and Wireless Connectivity to Internet.

Every legal requirement for a transparent and secure 'Public Online Tender Opening Event (TOE)' has been implemented on ETS. As soon as a Bid is decrypted with the corresponding 'Pass-Phrase' as submitted online by the bidder himself (during the TOE itself), salient points of the Bids are simultaneously made available for downloading by all participating bidders.

ETS has a unique facility of 'Online Comparison Chart' which is dynamically updated as each online bid is opened. The format of the chart is based on inputs provided by the Buyer for each Tender. The information in the Comparison Chart is based on the data submitted by the Bidders in electronic forms. A detailed Technical and/ or Financial Comparison Chart enhances Transparency. Detailed instructions are given on relevant screens.

ETS has a unique facility of a detailed report titled 'Minutes of Online Tender Opening Event (TOE)' covering all important activities of 'Online Tender Opening Event (TOE)'. This is available to all participating bidders for 'Viewing/ Downloading'.

There are many more facilities and features on ETS. For a particular tender, the screens viewed by a Supplier will depend upon the options selected by the concerned Buyer.

NOTE: In case of internet related problem at a bidder's end, especially during 'critical events' such as - a short period before bid-submission deadline, during online public tender opening event, during e-auction, it is the bidder's responsibility to have backup internet connections.

In case there is a problem at the e-procurement/ e-auction service provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of RailTel by the bidders in time, then RailTel will promptly re-schedule the affected event(s).

12. Other Instructions

For further instructions, the vendor should visit the home-page of the portal (<https://www.tcil-india-electronictender.com>), and go to the User-Guidance Center.

The help information provided through 'ETS User-Guidance Center' is available in three categories - Users intending to Register / First-Time Users, Logged-in users of Buyer organizations, and Logged-in users of Supplier organizations. Various links are provided under each of the three categories.

Note: It is strongly recommended that all authorized users of Supplier organizations should thoroughly peruse the information provided under the relevant links, and take appropriate action. This will prevent hiccups, and minimize teething problems during the use of ETS.

13. The following KEY INSTRUCTIONS for BIDDERS' must be assiduously adhered to:

1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS.
2. Register your organization on ETS well in advance of your first tender submission deadline on ETS.
3. While registering your organization on ETS Portal of TCIL, pl. make sure that the email id of Super user provided for registration and email-id on which Digital Signature Certificate of the Super user is issued are exactly the same.
4. Get your organization's concerned executives trained on ETS well in advance of your first tender submission deadline on ETS.
5. Bidder should ensure that **official copy of tender document** has been downloaded by clicking the radio button for confirmation else e-Procurement system will not permit the bidder to participate in the tendering process.
6. Submit your bids well in advance of tender submission deadline on ETS as there could be last minute problems due to internet timeout, breakdown, etc.

14. Minimum Requirements at Bidders end

- i) Computer System with good configuration (Min P IV, 1 GB RAM, Windows XP).
- ii) Broadband Connectivity.
- iii) Microsoft Internet Explorer 6.0 or above.
- iv) Digital Certificate (s) for users.

15. Vendors Training Program

One day training (10:00 to 17:00) on how to use the ETS Portal for e-Tendering would be provided. Training is optional. However, if a vendor has not already attended ETS Vendor Training earlier, it is highly recommended that the vendor attends this training positively to be able to submit the e-Tender smoothly without any problem.

Vendors are requested to carry a Laptop and Wireless Connectivity to Internet while attending the ETS Vendor Training.

Tentative Dates

Date of uploading of Tender document + 7 days

Venue:

RailTel Corporation of India Limited,
Plot No. 143, Sector-44, Opp. Gold Souk Mall, Gurgaon -122003.

Vendors Training Charges: Rs. 2,500/- (Per Participant) per training day (plus Service Tax as applicable).

Mode of Payment of Fees: DD drawn in favour of M/s TCIL, New Delhi & payable at New Delhi.

16. ADDITIONAL INSTRUCTIONS:

PLEASE NOTE

For E-Tendering bids /information by bidders is to be submitted “Online” on TCIL’s e-Procurement Portal. Any document / information pertaining to this chapter will have to be submitted by the bidder on line. The digital signature of the tenderer on the e-tender form will be considered as confirmation that the tenderer has read, understood and accepted all the documents, unless special deviation is quoted by the tenderer in the technical & commercial deviation templates.

ALL COLUMNS SHOULD BE FILLED AND BLANK COLUMNS, IF ANY, SHOULD BE MARKED AS NIL.

PLEASE READ THE SCHEDULE OF REQUIREMENTS, INSTRUCTIONS TO THE TENDERERS, TENDER CONDITIONS INCLUDING TECHNICAL SPECIFICATIONS OF SCHEDULE OF REQUIREMENTS BEFORE FILLING UP THE TENDER FORM CAREFULLY. PLEASE SIGN ON EACH PAGE.

THE TENDERERS MAY DOWNLOAD TENDER FORM FROM THE WEB SITE ‘www.railtelindia.com’ OR FROM THE E-TENDERING PORTAL ‘<https://www.tcil-india-electronictender.com>’, AND SHOULD ENCLOSE COST OF THE TENDER FORM ALONG WITH THE OFFER IN THE FORM OF DD IN FAVOUR OF RAILTEL CORPORATION OF INDIA LTD payable at NEW-DELHI.

NOTE: For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL’s e-procurement portal, and this should be done well before the deadline for bid submission.

17. Instructions for Tender Document TO THE TENDERERS

The RailTel Tenders are published on www.railtelindia.com and on e-Tendering Portal <https://www.tcil-india-electronictender.com>. In addition to submitting the e Tender documents online, they should also submit a Demand Draft drawn in a scheduled bank in favour of “RailTel Corporation of India Ltd, payable at NEW-DELHI, towards the cost of the tender document.

NOTE: For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from TCIL’s e- procurement portal, and this should be done well before the deadline for bid-submission.

18. Submission of Offers and Filling of Tender:

This e-tender should be duly submitted online using the e-Procurement Portal <https://www.tcil-india-electronictender.com>.

- a. The rates quoted should be written both in words & figures. The unit of rates should be in metric system & as per tendered specification/schedule. In case of difference between words and figures, the rate in words will prevail. If there is a

discrepancy between the unit price and total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected by the purchaser accordingly. In case discrepancy is observed between the 'Electronic Form' and the 'Main Bid file' the text and amounts etc. of the Electronic Form will prevail, as this is the information shared transparently with all participating bidders during Online Public Tender Opening Event on ETS.

- b. Tenderers are requested to go through the Terms & Conditions of the Tender carefully and note that, by submitting the tender documents, duly signed, they have accepted these conditions and undertake to abide by these conditions (unless specifically disagreed to clause wise).

19. Fax Quotations & Late Tenders:

Fax Tender documents and Late/Delayed tenders would not be considered.

20. Attendance of Representatives for Tender Opening:

Representatives of tenderers desirous to attend the tender opening can do so on production of a proper letter of authority from the respective firm, failing which they may not be allowed to attend the tender opening. In addition, representatives desirous of attending the Online Public Tender Opening Event can do so by getting authorized for such participation by the Super-User/ Master User of their respective organizations on ETS. Authorized representatives of those firms who have submitted the tender documents alone shall be allowed to attend the tender opening.

21. Addenda / Corrigenda:

Addenda / Corrigenda to the tender documents may be issued by RailTel prior to the date of opening of the tenders, to clarify or reflect modifications in the contract terms and conditions or in the design. Such addendum/corrigendum shall be available on TCIL's e-Procurement Portal only. Tenderers who are unable or unwilling to bring their tenders to conform to the requirements of the RailTel are liable to be rejected.

22. Ambiguity/ Pre- Bid Clarification Requests:

Bidders are requested to send their written queries / clarification requests to the RailTel in writing through TCIL e-portal, pertaining to ambiguity or doubt as to the meaning of any of the tender clauses/ conditions or any additional information latest till the date and time mentioned in this tender document, so that these can be discussed in the pre-bid conference.

23. Bid submission and Opening date

- 23.1 The bid should be submitted online along with Credential/Techno commercial & Price bid document (all documents).
- 23.2 EMD should be enclosed in an envelope and submitted physically to the tendering authority before the due date and time of submission of the e-Tender.

- 23.3 Power of attorney in favour of the signatory duly authorizing the signatory shall be submitted in a separate envelope to the tendering authority before the due date and time of submission of the e-Tender.
- 23.4 The tenderer's bids will be opened at the time & date of opening of the tender given in the Bid Data Sheet (BDS) in the online simultaneous presence of such Tenderers/ Representatives who choose to be present online. The Tenders/Representatives can also choose to be physically present in the office of RailTel for the Online Public Tender Opening Event.
- 23.5 Bids received after due date and time shall be summarily rejected and shall not be opened.

24 GST Clause

1. The imposition of any new and/or increase in the aforesaid taxes, duties levies (including fresh imposition of any other Tax like Goods and Service Tax-GST) is imposed by Statute, after the last stipulated date for the receipt of tender including extensions if any and the bidder thereupon necessarily and properly pays such taxes/levies/cess, the bidder shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of bidder attributable to delay in execution of work within the control of bidder. The bidder shall, within a period of 30 days of the imposition of any such further tax or levy or cess, give a written notice thereof to RailTel that the same is given pursuant to this condition, together with all necessary information relating thereto. In the event of non-payment/default in payment of any of the above taxes, RailTel reserves the right to with-hold the dues/payments of bidder and make payment to local/state/Central Government authorities or to labourers as may be applicable.

2 After Imposition of GST as explained in Clause 31.4 above, bidder shall issue cenvatable invoice to RailTel for availing proper credit of CGST / SGST / IGST. GST will not be reimbursed in the absence of cenvtable invoice.

3 The break-up of each item of SOR in terms of basic unit price, Excise Duty, Sales Tax, Freight, Custom Duty, Forwarding, Packing Insurance and any other Levies/ Charges already paid or payable by the bidder shall be quoted in the SOR. Bidder has to quote all inclusive rates (with Tax Break-up). Even after the introduction of GST, all inclusive unit rates payable will not exceed the all-inclusive rates offered by the bidder. However if rates are reduced in the current tax structure the bidder has to pass on the benefit to RailTel.

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CHAPTER-5**BID DATA SHEET (BDS)**

The section consists of provisions that are specific to various Clauses of the tender document COMMERCIAL TERMS & CONDITIONS (**CHAPTER-4A**), PQC, QUALIFICATION CRITERIA & EVALUATION OF OFFERS (**CHAPTER-4B**) AND INSTRUCTIONS TO THE BIDDERS (**CHAPTER-4C**).

Clause	Description
Clause 1.2, Chapter-4A	Validity of offer 180 days.
Clause 2.1, Chapter-4A	Warranty 36 months for hardware items from the date of PAC as per clause 5.6.1, Chapter-3E
Clause 3.1, 3.2 Chapter-4A	AMC Period (i) 24 months for hardware items after expiry of 36 months warranty, further extendable after negotiation (ii) 60 months for software items (application as well as third party software) from the date of PAC, further extendable after negotiation
Clause 3.2, Chapter-4A	Reference Rates for AMC cost: (i) For Hardware Items: @ 8% of cost of hardware items per annum (ii) For Software Items: @ 10% of cost of software items per annum Illustration is given in Annexure-D, Chapter-7.
Clause 4, Chapter-4A	Delivery Period and Completion Period Delivery Period: within 8 weeks from date of issue of LOA. Installation: within 12 weeks from date of issue of LOA. Rollout of workflow automation (completion): within 24 weeks from date of issue of LOA.
Clause 6, Chapter-4A	Performance Bank Guarantee (Security Deposit) 10% of value of LOA
Clause 6, Chapter-4A	Foreign Exchange & Custom Clearance Payment shall be made in INR only
Clause 1, Chapter-4B	Pre-Qualification Criteria (PQC) As per clause 1, chapter-4B

Clause	Description
Clause 2.1, Chapter-4B	Techno-Commercial Capability As per clause 2.1, chapter-4B
Clause 2.1.7, Chapter-4B	Turnover Rs. 9 Cr individually for Bidder (SI or OEM/OSSP) & OEM/OSSP for Telecom & IT Business
Clause 24, Chapter-4A	Offer/Bid Prices Offers in Indian Rupees (INR) only will be accepted
Clause 18, Chapter-4A	Purchaser's Right to Vary Quantities up to a maximum extent of +/- 30% of contract quantity
Clause 22.1, Chapter-4A	Earnest Money Deposit (EMD)/ Bid Security Rs. 5,00,000/- (Rs Five Lakh only)
Clause 34, Chapter-4A	Pre-Bid Conference 15:00 hrs. of 01.06.2017
Clause 35.1, Chapter-4A	Last Date of Submission of Offer (online) Date: 13.06.2017 Time: 15:00 hours Venue: same as above
Clause 37.1, Chapter-4A	Date of Opening of Tender (online) Date: 13.06.2017 Time: 15:30 hours Venue: same as above
Clause 23, Chapter-4A	Declaration for PMA (Preferential Market Access) The manufacturer claiming to qualify under the scope of such rules for PMA must submit the declaration of VA (Value Addition) as required under the issued notification for the specified period for 2015-16 & 2016-17.
Clause 10, Chapter-4A	Transportation Material shall be delivered at following RailTel Data Centers: (i) Primary Site: Delhi NCR (ii) DR Site: Secunderabad
Clause 7.2, Annexure C	Purchaser's Right to Vary Quantities Up to a maximum extent of +/- 50% of SOR quantity.

Note: If the details given in BDS contradict with referred clause in the detailed tender document, the details in BDS will have overriding priority over the referred clause in the tender document.



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CHAPTER-6**Form No. 1****PROFORMA FOR PERFORMANCE BANK GUARANTEE BOND**

(On Stamp Paper of Rs one hundred)
(To be used by approved Scheduled Banks)

1. In consideration of the RailTel Corporation of India Limited, having its registered office at 6th Floor, IIIrd Block, Delhi Technology Park, Shastri Park, Delhi-110053 and Corporate Office at Plot No. 143, Institutional Area, Sector-44, Gurgaon-122003 (Herein after called RailTel) having agreed to exempt(Hereinafter called “the said Contractor(s)”) from the demand, under the terms and conditions of an Purchase Order/LOA No.....dated.....made between.....and..... for (hereinafter called “ the said Agreement”) of security deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs.(Rs only). We (indicate the name of the Bank) hereinafter referred to as “the Bank”) at the request of Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs. against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.
2. We , Bank do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount is claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs
3. We, bank undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Tenderer(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal. The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Tenderer(s) shall have no claim against us for making such payment.
4. We, Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly

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

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

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

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

Dated the day of 2017

for
(indicate the name of the Bank)

Witness

1. Signature
 Name
2. Signature
 Name

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PROFORMA FOR THE SYSTEM PERFORMANCE GUARANTEE
(On Stamp Paper of Rs. one hundred)

The Director,
RailTel Corporation of India Limited

I / We hereby guarantee that the tender requirement, on the basis of which we have submitted our tender no. has been carefully read and complied in our offer to conform to the end objectives in the tender documents and to technical specification therein. We further guarantee that in the event of the performance of the system, when installed, not complying with the end objectives or with the specifications contained in the tender documents, we shall provide further inputs to enable the RailTel to realize the end objectives contained in these documents without any additional payment for any additional equipment which may be required in this regard. We further guarantee that all the expenses for providing the additional inputs under the System Guarantee will be borne by us. We further guarantee that these additional inputs will be provided by us to make the system workable within 1 month from the date on which this guarantee is invoked by the Purchaser. The guarantee is valid for a period of one year from the date of commissioning of the system.

(Signature of Firm's Authorized Officer)
Seal

Signature of witness:

1.

2.

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Form No. 3

**PROFORMA FOR THE LONG TERM MAINTENANCE SUPPORT
(To be signed by the OEM/OSSP)**

To

The Director,
RailTel Corporation of India Limited

Applicable for OEM/OSSP directly participating in the Tender:

I / We hereby confirm that we have read specifications & tender conditions of RailTel Tender No. and accept that against the requirement of Long Term Maintenance Support as per Clause 3 of Chapter-4A shall be met **by us directly or through our subsidiary in India** as per rates quoted in the Price Bid. I / We shall provide services as per terms and conditions pertaining to Long Term Maintenance Support of tender document.

OR

Applicable for System Integrator's participation in the Tender:

I / We hereby confirm that we have read specifications & tender conditions of RailTel Tender No. and accept that against the requirement of Long Term Maintenance Support as per Clause 3 of Chapter-4A shall be met by the System Integrator. However if System Integrator fails to fulfil the support obligation due to any un-foreseen circumstances, the same shall be provided **by us directly or through our subsidiary in India** for the mentioned/remaining period at the quoted prices by the bidder. I / We have gone through the requirement mentioned in the Tender document and shall provide services as per terms and conditions pertaining to Long Term Maintenance Support of tender document.

(Signature of Firm's Authorized Officer)
Seal

Signature of witness:

1.
2.

NOTE: Please strike out whichever is not applicable.

Form No. 4

CHECKLIST OF ESSENTIAL DOCUMENTATION/ACTIVITY

The tenderer is required to submit offer as per following check list of submitted documents:

SN	Item/Clause of Tender Document	Details/Remarks
	Credential/Techno-Commercial Bid (Online)	
1	Tender Document (Downloaded)	
2	DD for Cost of Tender Document	
3	DD for Cost of EMD	
4	Soft Copy (Word/Excel/PDFs format) of offer & Bill of Material(BOM) in PDF as well as Excel format (Note-VI of SOR of Tender Document)	
5	Offer Letter duly signed by authorized signatory (Chapter -1 of Tender Document)	
6	Specific authorization addressed to RailTel from the OEM / OSSP (Parent Company) for Indian Subsidiary (Clause 2.1.10, Chapter-4B of Tender Document)	
7	Specific authorization addressed to RailTel from the OEM / OSSP for System Integrator (Clause 2.1.11, Chapter-4B of Tender Document)	
8	Power of Attorney to Signing the Bid (Clause 36.2, Chapter 4A of Tender Document)	
9	Digitally Signed Copy of Tender Document/ Corrigenda (Clause-35.4, Chapter-4A of Tender Document)	
10	Clause wise compliance of tender document (Clause 25.1 of Chapter-4A of Tender Document)	
10.1	Clause wise Compliance to all the Corrigenda, if any	
10.2	Clause wise Compliance to the Specifications (Clause 3.5 & 3.6 of Chapter-3C of Tender Document)	
11	Schedule of Requirements (Un-Priced) (Clause 35.5 (a)(2) of Chapter-4A of Tender Document)	
12	Bill of Material(BOM) with prices blanked out (Clause 35.5 (a)(2) of Chapter-4A of Tender Document)	
13	List of all possible interfaces/ modules/ cards/Amplifiers/ SFPs/XFPs etc which the offered equipment can support / required for optimization of the network including synchronization needs, if any, but not ordered by RailTel or not included in the above SOR (Clause 35.5 (a)(13) of Chapter-4A and SOR of Tender Document)	
14	Declaration regarding acceptance of clarification issued from DoT for Latest Security Clause which includes sign of Agreement between RailTel & Vendor/OEM	

SN	Item/Clause of Tender Document	Details/Remarks
	(Clause 17.2, Chapter-4A of Tender Document)	
15	Form No. 2 (System Performance Guarantee) (Clause 15.2 & 35.5 (a) 11, Chapter-4A of Tender Document)	
16	Form No. 3 (Undertaking for Long Term Maintenance Support from OEM / OSSP) (Clause 3.5, Chapter-4A of Tender Document)	
17	The manufacturer claiming to qualify under the scope of rules for PMA (Preferential Market Access) must submit the declaration of VA (Value Addition) (Clause 35.5 (a) 12, Chapter-4A of Tender Document)	
18	Pre-Qualification Criteria (PQC)	
18.1	Turnover of INR 9 Cr for Telecom & IT business for Bidder (SI or OEM/OSSP) and OEM/OSSP both. (Clause 1.1 (a), Chapter-4B of Tender Document)	
18.2	SI's experience in implementation of AAA and B/OSS Infrastructure System with Indian Telecom Service Provider: references required. (Clause 1.1 (b)(i), Chapter-4B of Tender Document)	
18.3	OSSP/OEM's reference for AAA and B/OSS Infrastructure System with Indian Telecom Service Providers or Tier-1 or Tier-2 Telecom Service providers. (Clause 1.1 (b)(ii), Chapter-4B of Tender Document)	
18.5	Functional requirements as per clause 1.2, Chapter-4B of Tender Document.	
19	Qualification Criteria: Techno-Commercial Capability	
19.1	Declaration for OEM / OSSP for at least past three years with the supporting documents (eg. registration, proof of supply of equipment) (Clause 2.1.2, Chapter-4B of Tender Document)	
19.2	Copies of Purchase orders and other documents in support of meeting technical qualifying criteria, during last three years (i.e. current year and two previous financial years) (Clause 35.5 (a) (7), Chapter-4A of Tender Document)	
19.3	Documentary proof of system being proven and have been working satisfactorily for at least 3 years in India along with user certificate (Clause 2.1.3, Chapter-4B of Tender Document)	
20	Documentary proof for the annual average turnover of contractual payment received from Telecom / IT business during the last preceding 3 financial years (i.e. current year and three previous financial years) from the date of opening of tender (Clause 2.1.7, Chapter-4B of Tender Document)	
21	Technical proposal of tenderer in conformity with system design or alternative proposal of the tenderer, if any (Clause 35.5 (a) (10), Chapter-4A of Tender Document)	

SN	Item/Clause of Tender Document	Details/Remarks
22	Complete technical data and particulars of the system offered, as specified in the Tender papers together with descriptive literature, leaflets, Drawings, if any, complete with list etc. (Clause 35.5 (a) (8), Chapter-4A of Tender Document)	
23	Form No. 5 of Chapter-6 , giving information about the credentials against submitted credentials (duly filled)	
24	Documentary proof of registration for being MSE registered with any of the agencies mentioned in the notification of Ministry of MSME (Clause 22.7, Chapter-4A of Tender Document)	
25	Additional Documents enclosed with offer, if any	
Price Bid (Online)		
1	Copy of Price Bid	
2	Schedule of Requirements (with Price)	
3	Unit rate analysis of each SOR item with break-up of taxes/duties as per proforma attached as Annexure- A & B of Chapter-7)	
4	Bill of Material (BOM) with prices of each module/cards along with editable soft copy (in the form of Excel/Word)	
5	Unit rate of all possible interfaces/ modules/ cards/ SFPs/XFPs etc which the offered equipment/system can support / required for optimization, if any, but not ordered by RailTel or not included in the SOR.	

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Form No. 5

DETAILS OF CREDENTIALS SUBMITTED AGAINST PQC / QUALIFICATION CRITERIA**Details against clause no. 1.1 (b) (i), 1.1 (b) (ii), 2.1.3 & 2.1.6 of Chapter-4B**

SN	User (Customer Name)	Signatory or Authorized contact person of the user			Make	Version	Scale of the Solution
		Name	Contact No.	E- mail Id			

Details against clause no. 1.1 (a) (i), 1.1 (a) (ii) & 2.1.7 of Chapter-4B

SN	Financial Year	Receipts from Operations
1		
2		
3		
4		
	Total	

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CHAPTER-7

Annexure-A

Price Schedule for Indigenous Items

[illegible]

Price Schedule for Imported Items

[illegible]

Annexure-C**Detailed standard conditions applicable for the AMC, OSSP's Support Engineer and O&M support
(Clause 3.6, Chapter-4A of Tender Document)****1.0 Introduction**

This document contains the standard conditions applicable for the Annual Maintenance Contract between RailTel and the Contractor. Contractor is defined as the company whose products/equipments have been deployed over the RailTel telecommunication network and the warranty of these equipments has expired or going to be expire shortly. All the equipments/ cards/ modules given in SOR will be covered under this contract. This Annual Maintenance Contract will cover up the provision of remote services to be provided by the contractor for proper working of Network created through the contractor's equipments. This document will also cover up the Repair and Return services for the rectification of defective modules/cards/parts etc. which are the key tools in use for uninterrupted use of the system. It also includes the Key performance parameter which will decide the outcome of the contractor within reasonable time frame along with the provision of penalties. This Annual Maintenance Contract will cover the following services:

- **Technical Support service.**
- **Repair and Return Service.**
- **Software Updates/Upgrades.**

2.0 Basic Definitions and terminology Used:-

RailTel: RailTel Corporation of India Limited having its registered office at 6th Floor, IIIrd Block, Delhi Technology Park, Shastri Park, Delhi-110053 and Corporate Office at Plot No. 143, Institutional Area, Sector-44, Gurgaon-122003.

Contractor: Contractor means firm/company whom equipments are deployed over the Telecommunication Network of RailTel.

TSC: Technical Support Center created by the Contractor for 2nd level support.

TEC: Telecom Excellence Center created by the contractor for 3rd level support.

WC: Welcome Center of contractor through which the RailTel may interact with contractor.

AR: Assistance Request created by WC of contractor for a specific request of RailTel which will be used for all references until its closure and also for future correspondence.

Maintained Products: Details of equipments / systems / network / software with location wise deployment and serial identification numbers to be incorporated in a statement jointly signed by RailTel and Contractor, which will be covered under AMC contract.

Severity Levels:

Severity Levels are defined as the condition of the system when RailTel submits an Assistance Request (AR). There are three severity levels for reported problems. Severity levels are defined as follows:

“Critical” (also known as Severity Level 1, SL1): The system is inoperative and RailTel’s inability to use the product has a critical effect on RailTel’s operations. This condition is generally characterized by complete system failure and requires immediate correction.

“Major” (also known as Severity Level 2, SL2): The system is partially inoperative but still usable by RailTel. The inoperative portion of the product severely restricts RailTel’s operations, but has a less critical effect than a severity level 1 condition.

“Minor” (also known as Severity Level 3, SL3): The system is usable by RailTel, with little or limited impact to the function of the system. This condition is not critical and does not severely restrict overall RailTel operations.

RailTel shall inform the severity based on above definitions, at the time of opening of AR with Contractor’s TSC. If TSC feels to disagree on the severity, may discuss with RailTel on correction of severity. Where parties disagree on the classification of a particular reported problem, RailTel and Contractor’s technical contacts will discuss the classification in good faith to reach a mutually acceptable classification. In the event, the parties are unable to reach agreement on the classification, the reported problem shall be classified at the discretion of RailTel.

Key Performance Indicators (KPIs):

The key performance indicators (KPI) established by contractor and RailTel, are dependent on the severity level of the request as reported by RailTel to the TSC through telephone. Contractor’s KPIs extend to Maintained Products running on a currently supported software version release only. These are KPIs which will decide the penalties to be imposed on contractor if he fails to achieve the fixed parameter for both remote services and Repair & Return services.

“Response Time” (also known as Specialist Call-back) means the time period from when RailTel first notifies the Contractor’s welcome center of a reported problem to when an contractor’s expert attempts to contact RailTel via telephone or preferred contact method as defined when submitting the request.

“Restore Time” (also known as Remote Neutralization) means a measure of the length of time from when contractor is contacted and an event is determined to be loss of service and/or functionality affecting, to the time when contractor provides the means to return a system to operational status. This will be applicable only for services impacting cases. Travel time of field’s engineers or TSC engineers and spare arrangement times will be excluded in this.

Resolve Time (Also known as Final Resolution Time) means a measure of the length of time from when RailTel first notifies the contractor’s welcome center to the

time when a solution to address the issue is made available to RailTel. This may or may not occur simultaneously with Restore Time.

Patch Releases/Maintenance Releases:-

“Patch Release” means a software release that contains minor modifications to address a specific problem and help restore a system. A Patch Release may also be known as “Craft Release”.

“Maintenance Release” means a software release that contains modifications intended to resolve problems that prevent products from performing up to the manufacturer’s technical specification. Typically they are comprised of a collection of Patch Releases. Maintenance Release may also be known as an “Update Release” or a “Point Release”.

3.0 Technical Support Service:-

During this AMC period, whenever needed, RailTel may contact the Contractor’s Support center (WC) through a dedicated phone no. or e-mail address or Web for every issue or request. The Welcome Center of the Contractor (WC) will be available 24 hours a day and 365 days of the year. Welcome Centre creates the Assistance Request (AR) in the database and this AR will be used for all future correspondence /references and it will route to either for Repair or Return services or to Technical support center (TSCs) for remote assistance. These level 2 services provided through Technical support center may escalate to Technical Experts centre or to OEM / OSSP dedicated technical support centers (for OEM support for hardware and /or software portion of the products).

The Welcome centre of contractor (WC) keeps track of the assistance request (AR) or part request until closure.

3.1 Contractor’s responsibilities:

Contractor shall login RailTel Network / system in support of product related questions troubleshooting assistance, diagnostic procedures, and Patch & Maintenance Releases, as are made available, to restore and resolve network troubles. The following services will be provided:

- 3.1.1 Troubleshoot system problems via phone, virtual private network, or modem connection down to Maintained product component level, or sufficiently to the maintained products as the root cause.
- 3.1.2 Provide technical advice and guidance via telephone or email by Contractor’s product specialists located in their Technical Support Centers (TSC). Upon request from RailTel, RailTel will receive information, advice and assistance for the Maintained Products.
- 3.1.3 Provide Patch & Maintenance Releases for Maintained Products, as provided in accordance with the applicable product software support policy. For selected products noted on Maintained Products Contractor will remotely install software fixes, patches, and updates that may be made available.

- 3.1.4 For Severity Level Critical (Severity 1) and Major (Severity 2) will restore Maintained Products to operational status by identifying defective hardware components or providing software and/or procedural workarounds, where feasible. All software workarounds will be licensed subject to the same terms, restrictions, and limitations as contained in the licenses under which the software was acquired.
- 3.1.5 Not Used.
- 3.1.6 The in-charge of the System shall fill up the history sheet containing the statistics about the health of system installed at the concerned site and send a report to the Data Center / CNOC, where the contractors engineer is posted, on monthly basis. Based on this history sheet the supplier shall analyze the health report of each equipment / sub-system and if something alarming or unusual is noticed, shall advise the concerned staff of RCIL to take necessary actions for preventive maintenance of such equipments. The Proforma for checking the status/history sheet shall be jointly decided by the contractor and RCIL.
- 3.1.7 Software Update:**
- RailTel will be extended the benefits of software updates made by OEM / OSSP on the installed systems on existing release from time to time to improve performance. If required to restore or rectification of severe problems all the software up-gradation, re-installation will be done by contractor during the period of AMC.

3.2 RailTel Responsibility:-

When reporting an AR, RailTel shall include Severity Level of problem and output of any diagnostic, printed logs, already performed to help reproduce the conditions under which the trouble occurred. Identify site ID or contact number, submitter name & location, callback telephone number and/or email address, system name and location, processor location, type and serial number, and alternate contact.

- 3.2.1 RailTel will notify contractor in writing immediately of any change in the employment or authorization status of any personnel having authorized access to the Web site.
- 3.2.2 RailTel will provide remote access to Contractor's TSC to access their network in case of critical issues.
- 3.2.3 RailTel will perform first level diagnostics before handing over the ticket to the Contractor. RailTel will share all network layouts, link details etc which may be needed by Contractor to help troubleshooting the issue.
- 3.2.4 RailTel will provide all necessary documents for repair of cards / modules.

- 3.2.5 RailTel will provide all necessary technical support in the form of technical staff equipped with necessary equipments etc. to give remote access to Contractor.

4.0 Repair and Return Services

4.1 Repair

4.1.1 Contractor's Responsibility:-

- The Contractor will take- over the defective cards/components/modules from RailTel Data Center / CNOC and hand-over the repaired card at the same location. The following activities will be performed by the contractor:
- After receiving a defective part request through Welcome Centre (dedicated phone line or e-mail), the defective part will be taken over by the contractor from RailTel Data Center / CNOC. All the documentation including identification number (Serial number) will be provided by RailTel.
- There will be initial one time activity of all existing faulty cards being repaired by Contractor before commencement of the AMC. AMC will cover only equipments which are in working condition.
- **Delivery Period:** The received defective part will be got repaired by the contractor within 30 days from the date of receiving and will be handed over to RailTel authorized representative at Data Center / CNOC. The contractor will also give probable reason for repeated failure of cards/modules.

Uninterrupted Network: For smooth and uninterrupted traffic during the repair being carried out by the contractor.

1. RailTel will use its own spare card in the first instance.
2. If contractor fails to return the repaired card within stipulated time of 30 days from the date of receipt then the OK (good conditioned) cards/parts etc will be provided by the contractor for the subsequent in this period free of cost till replacement with the repaired card.
3. All transportation, freight and insurance charges will be borne by the contractor.
4. Contractor will keep the record of repair on each defective part/cards with serial numbers (unique identification) particulars.

4.1.2 RailTel's Responsibility

RailTel will hand over the defective card//Parts/etc. to the contractor's authorized representative at RailTel Data Center / CNOC along with the following relevant information & documentation.

- Identification/serial number and location of use.
- Fault report document duly filled-in in a format as per requirements of Contractor.
- All relevant documentation including failure description, diagnostic tests results.
- Adequate packing material to protect against reasonable risk of damages.
- Provide all necessary government authorization and documentation necessary to facilitate custom clearance processing.
- Perform a physical check test on the repaired parts.

4.2 Return

If any part goes beyond repair due to Contractor at the time of repair being carried out, this is to be communicated to RailTel and after agreed upon, it will be labeled as "unworkable". If it will be required to deploy a new part on that location that will be provided by the contractor to RailTel free of cost. To achieve this, contractor is required to always keep adequate spares with it during the period of AMC. However this excludes damaged, spoiled, rusted or misused parts. Any such parts will be not-repairable and no replacements shall be provided by contractor. RailTel will have to purchase fresh spares in case the cards are non repairable due to these reasons.

5.0 Services Level Agreement Values (SLA):

As described above, if the contractor fails to provide the Technical Support Services and Repair services within the reasonable time, the following KPIs will be used.

5.1 Technical Support Services

5.1.1 General

Detailed description of support methodology shall be given by the tenderer. This should include information about:

- Helpdesk/Call Centre management
- Support levels and functions
- Locations
- Types of Support

5.1.2 Version support

- AMC support includes all version updates and upgrades.
- RailTel reserves the right not to major upgrade to your product version during mentioned lifecycle of the product as specified in tender, will there be an impact on support services. Please specify.

5.1.3 Software Support Service

- **Inclusions**

The support for software to be provided by the supplier will include, at no additional cost to RailTel, the following services:

- A) The provision of new updates (eg. Patches, firmware, etc) for the equipment,
- B) Delivery of:
 - i) Updates urgently in response to any fault resolution and/or major software security vulnerabilities as defined by the customer or other bodies as deemed appropriate by RailTel.
 - ii) Updates on a regular basis with respect to improvements, general security issues, and/or bug corrections.
- C) Ensuring that new updates are compatible with RailTel's networks & OSS systems
- D) Ensuring that new updates are compatible with existing software patches
- E) Verifying of solutions (where possible to reduce) within the maintenance or correction packages delivered by supplier for faults reported by the customer, to be performed jointly with RailTel
- F) Basic testing of updates to be performed jointly with RailTel
- G) Providing remote access diagnostics and fault resolution
- H) All applications to be supplied should be state of art and must not be N-1 version (N being latest version). The applications must be supported at least for 10 years from the date of supply, without impacting any SLAs.
- I) It should be possible to forklift (port) all the customizations in version upgrade without requirement of re-writing the existing customizations.
- J) Providing RailTel with information about any updates immediately upon availability. Such information must include:
 - i) The content
 - ii) Nature of improvement with any feature definition
 - iii) Impact to the existing system supplied by the supplier to RailTel;
 - iv) A schedule of availability of each new update;
 - v) Any dependencies on third party systems or software citing relevant versions, levels and hardware or software configuration requirements;
 - vi) Any revised documentation ;and
 - vii) Any other information which will enable RailTel to determine the feasibility to skip the updates or to wait for the next upgrade for the systems.
- K) Ensuring that installation of any Update will not cause and unplanned fault, service outage or service degradation (effect to the system) and will be carried out by the supplier at no additional cost to RailTel.
- L) Constantly review the latest security patches available and recommend such security patches to be implemented.

- **Software Update Rejected**

If RailTel decides not to implement a new update (maintenance packages or emergency corrections) for any reason then:

- a) The supplier is still required to provide support for the then current version of software being used by RailTel;
- b) The parties must discuss the consequence of RailTel not installing such update.

- **Updates Accepted**

If RailTel decides to implement a new update then:

- a) If the update fails to perform in accordance with the specifications during operation in RailTel's network then RailTel reserves the right to revert to the previous version. The supplier must continue to support that previous version;
- b) The supplier must assist RailTel in any post-implementation monitoring which RailTel may conduct after a new update; and
- c) The supplier shall provide the relevant feature description pertaining to the new features or enhancements introduced by the updates.

5.1.4 Operations post UAT, including enhancements required

The system integrator/integrators need to manage the solution for 5 years along-with additional customizations required (if any) by users, post UAT, after which RailTel may takeover L1/L2 operations.

Following are key tasks to be carried out during 5 years operations:

- Data continuity from different data sources have to be monitored and same needs to be automated. New and/or proposed integrations as mentioned in platform architecture has to be implemented by winning bidder, for the tools to be supplied
- User ID creation with privileges.
- Platform upkeep, regular version upgrades, updates, capacity check and expansion (hardware and software) will form part of deliverable scope.
- All housekeeping activities such as regular system health check, security check, backup etc is understood to be part of the MS responsibility.

5.1.5 Support overview

- Operations personnel shall have to operate from data centre premise of RailTel. SMEs can remain off-site.
- Enhancements definition – Traditionally OSS users get enlightened post they start using the OSS solution. The enhancement is defined as addition/deletion/modification of existing reports, dashboards, correlation rules etc. Enhancements will be incremental requirements post UAT.
- SMEs for enhancements and/or configuration changes, will have to operate from office premises belonging to RailTel.

- Selected partner shall use the same ticketing system as the users which will allow end user to log Incident, and CR. Approval process for CR will be automated through ticketing system.
- Incident should be auto generated from system alarm/alerts. Any user may also log an incident based on his problem.
- All incident time should be with system time stamp and hardware uptime report will be provided at the end of month.
- Performance degradation to the extent of not being usable is at the discretion of user community SPOC. This will be counted towards service not being available.

5.1.6 SLA for O&M:

All SLAs are to be computed on quarterly basis. The SLAs for **Hardware Platform and Service availability** during each quarter will be calculated as defined below-

SLA Factor Description	Measurement Type	Parameter	Target	Weightage	Achieved per quarter	Quarterly SLA Score
a. Availability of Hardware Platform				20%		20.0
Availability of Hardware Platform	Overall	Aggregate Platform Availability	99.95	40%	100	40.0
	Incident Wise	Percentage of HW Un-availability and failure reasons to be closed within 90 Min.	95	40%	100	40.0
	RFO	Percentage Release of RFOs (Reason for Outage) within 2 hours of resolution	100	10%	100	10.0
	RCA	Percentage Release of RCAs (Root Cause Analysis) within 48 hours of resolution	100	10%	100	10.0
b. Availability of Service				80%		80.0
Availability of Service	Overall	Aggregate Service Availability	99.95	30%	100	30.0
	Incident Wise	Percentage Closure of All Application and service Un-availability within 45 mins	95	20%	100	20.0
	RFO	Percentage Release of RFOs (Reason for Outage) within 2 hours of resolution	100	10%	100	10.0
	RCA	Percentage Release of RCAs (Root Cause Analysis) within 48 hours of resolution	100	10%	100	10.0

SLA Factor Description	Measurement Type	Parameter	Target	Weightage	Achieved per quarter	Quarterly SLA Score
	Admin configurable configuration changes	Percentage of requests to be addressed in 8 hours	98	10%	100	10.0
	Availability of data feed	Percentage availability of data sources directly connected to other OSS systems	99.95	20%	100	20.0
Total (a+b)				100%		100

5.1.7 SLA Factors for Support Engineer:

The SLAs for **support engineer** will be calculated as defined below-

SLA Factor Description	Measurement Type	Parameter	Target	Weightage	Achieved per quarter	Quarterly SLA Score
Defined as Integration with data source (s), modeling of network, service.	Business Requirement Documentation and Service Modeling submission for signoff.	Days since first written intimation by RailTel	Within 15 days for 100 % cases.	10%	100	10
	UAT offer based on BRD	Days since business requirement document sign off by RailTel.	Within 30 days for 100% cases.	15%	100	15
	Porting on Production environment.	Days since UAT sign off by RailTel.	Within 15 days for 100% cases.	25%	100	25
Onsite availability of support engineer	Troubleshooting/Customization	Days	Within 5 business days	30%	100	30

Offsite availability of support engineer	Troubleshooting/Customization	Days	Next business day	20%	100	30
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Note: One platform is defined as one independent computing entity.

5.2 Repair and Return Services

If the contractor fails to return the card with 30 days, the following penalties will be imposed:

Equipment	Duration of repair	Deduction/Penalties
All Modules and accessories	More than 30 days and upto 40 days (from the date of receipt)	10% of the cost of affected part/module
All Modules and accessories	More than 40 days and upto 50 days (from the date of receipt)	25% of the cost of affected part/module
All Modules and accessories	More than 50 days and upto 60 days (from the date of receipt)	75% of the cost of affected part/module
All Modules and accessories	More than 60 days (from the date of receipt)	Full cost of affected part/module

6.0 Onsite/Offsite Engineer Support by OSSP

Traditionally OSS users get enlightened post they start using the OSS solution. The enhancement is defined as addition/deletion/modification of existing reports, dashboards, correlation rules etc. Enhancements will be incremental requirements post UAT.

Successful Bidder shall provide engineer as per demand on time to time at the locations approved by RailTel.

6.1 Responsibility Matrix of Support Engineer :

1. Engineer will be responsible for project enhancements/customizations based on users requirement post UAT & roll-out
2. Enhancement work would include change request, customization, and new report development.
3. Engineer will document the design and customization and submit for approval
4. Engineer will implement customizations and roll out. Will also hand hold users for training.
5. Onsite Engineer will be available for onsite troubleshooting, which requires intervention by L2/L3 engineer, in coordination with backend team of OSSP/OEM for resolution.

6. In case of critical issues related to system usability, engineer has to report at RailTel site within 24 hours. In other cases, requirement should be fulfilled within a week period.

6.2 Responsibility Matrix of Operations Team:

1. System Monitoring.
2. System Management misbehaviors and malfunctions.
3. Filtering of alerts based upon service affecting categories and/or predefined alarm reaction lists.
4. Take corrective action
5. Support for all planned activities.
6. Generating a Service request to respective AMC vendor for required support
7. Follow up with vendor and engineers to resolve the system issues.
8. Escalation to respective managers for long pending system issues and opened service request with vendor.
9. Generation of weekly report for all service requests opened/closed with vendor
10. Diagnose and work to correct system troubles and restore if appropriate and feasible.
11. Conduct day to day operation in accordance to RailTel's policy and recommended procedures.

6.3 General Terms and Conditions Applicable

- i) The selection of the Engineer will be done by Contractor jointly with RailTel. RailTel will nominate their officer/s for interviewing the candidates.
- ii) The above support offerings will be on 24x7x365 basis.
- iii) The Engineer must be equipped with all necessary facilities/equipments such as Laptop, mobile telephone, data card, Internet connection; conveyance accommodation etc.
- iv) In case of requirements from contractor to log in to the system remotely, RailTel would provide access to the system through secured data communication.
- v) In case of unsatisfactory service, the Engineer will be withdrawn and replaced by a suitable one with a clear notice of 15 days.

7.0 General Conditions:

7.1 Period of AMC

This Annual Maintenance Contract will be valid for a period as mentioned in BDS (Chapter-5). This period (i.e. AMC period) may be extended further with mutual consent of RailTel and Contractor.

- 7.2 RailTel at its discretion is free to change the location of the equipments installed during the currency of AMC and the contractor shall carry out the AMC with same commercial terms **Quantity to be ordered:**

1.The purchaser shall be at liberty to enhance or reduce the quantity mentioned in the APO/LOA/Sub PO as indicated in SOR Chapter 2 without assigning any reasons based on requirement. The bidder shall comply with such modifications unconditionally provided these are made before completion of the deliveries under the APO/SPO/PO. Any such change in quantity shall have no impact on the rates mentioned in the APO/LOA/Sub PO for any such item.

2.RailTel will enter into Rate Contract with the successful firm to whom the contract is awarded for catering of requirement of Equipment. During the validity of Rate Contract, RailTel will place Sub Purchase Orders for Equipment detailed in SOR, as per requirement. The total variation under Rate Contract +/- 50% of contract value shall be restricted for these SOR items. The supplier shall have to supply the against these Sub Purchase Orders within 60 days from the date of issue of such Sub Purchase Orders and should submit a Performance Bank Guarantee (PBG) within 15 days of the issue of such Sub Purchase orders @ 7.5% of the value of the Sub PO as per proforma given in Chapter 9. A standing Performance Bank Guarantee @ 2.5% of total value of issued LOA for due fulfillment of the rate contract with validity of three months beyond warranty period from the date of issue of APO to cover the validity of Advance Purchase Order, delivery period and Warranty period.

7.3 Performance Bank Guarantee:-

The contractor is required to submit a Performance Bank Guarantee (PBG) within 15 days from the date of issue of LOA for AMC @ 10% of the value of the AMC contract's annual value valid for a period of 4 months beyond the AMC period from the date of issue of LOA. The Proforma for PBG is given in Form No. 1 of tender document. If the AMC period got extended, the PBG will also be extended accordingly.

The performance Bank Guarantee will bear no interest.

7.4 Prices and Taxes:-

- The prices for the services shall be in INR which will be the currency of account invoicing and payment.
- If in respect of the provision of services, Contractor has to pay the additional admissible taxes, the same will be get reimbursed after receiving he documentary proof by RailTel.
- Price will not include the cost of any financing (if any).
- The Octroi/entry tax shall be paid extra as per actual on production of proof of payment/document.

7.5 Payment Terms:-

1. AMC charges shall be paid on quarterly basis by the concerned in-charge of Data Center/CNOC after successful completion of maintenance within 30 days from the date of invoicing accompanied with Invoice, Monthly trouble ticket

report, Monthly repair report subject to any deductions or recovery (which the RailTel may be entitled to make under contract) through RTGS. Monthly reports will be shared with RailTel regularly. Format will be mutually decided by RailTel and Contractor.

2. **Form “C”**, If required shall be issued by the RailTel. In case, contractor is required to pay the additional tax, they have to produce the challan as evidence to entertain claim for reimbursement.

7.6 Execution of contract

The concerned officer in-charge of Data Center / CNOC will be responsible for the execution of the contract. Certificate regarding proper execution of the AMC along with proposed deductions/penalties with reasons thereof shall be prepared for every billing cycle (quarterly) for arranging payment to the contractor.

7.7 Not Used

7.8 Not Used

7.9 Tenderers Address

Tenderer shall state in the tender his postal address fully and clearly. Any communication sent to the Tenderers by post at his said address shall be deemed to have reached the tenderer duly & timely, notwithstanding the fact the communication could not reach the tenderer at all or in time for whatever reason. Important documents shall be sent by Registered post.

7.10 Not Used

7.11 Law governing the contract.

The contract shall be governed by the law for the time being in force in the Republic of India. Compliance to regulations and bye-laws-The contractor shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The Contractor shall be bound to give all notices required by statute, regulation or bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

7.12 Force Majeure clause:-

If at any time, during the continuance of this contract, the performance, in whole or part, by either party, of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, act of the public enemy, Civil

Commotion, Sabotage, Fires, Floods, Earth quakes, explosions, strikes, epidemics, quarantine restrictions, lockouts, any statute, statutory rules/regulation, order of requisitions issued by any Government Department of Competent Authority or acts of God (here-in-after referred to as event) then provided notice of the happening of any such event is given by either party to the other within twenty one days from the date of occurrence thereof, neither party shall, by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damage against the other in respect of such non-performance or delay in performance, and the obligations under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, Provided further that if the performance in whole or part of any obligation under this contract of prevented or delayed by reason of any such event beyond a period as mutually agreed to by the RailTel and the Contractor after any event or 60 days in the absence of such an agreement whichever is more, either party may at its option to terminate the contract provided also that if the contract is so terminated under this clause the RailTel may at the time of such termination take over from the Contractor at prices as provided for in the contract, all works executed or works under execution.

7.13 Illegal Gratification

Any bribe, commission, gift or advantage given, promised or offered by or on behalf to the contractor or his partner, agent or servant or anyone on his behalf to any officer or employees of the RailTel, or to any person on his behalf in relation to obtaining or the execution of this or any other contract with the RailTel shall, in addition or any criminal liability which he may incur, subject the contractor to the rescission of the contract and all other contracts with the RailTel and to the payment of any loss or damage resulting from such decision and the RailTel shall be entitled to deduct the amounts so payable from any moneys due to the Contractor (s) under this contract or any other contracts with the RailTel.

The contractor shall not lend or borrow from or have or enter into any monetary dealings or transactions either directly or indirectly with any employee of the RailTel and if he shall do so, the RailTel shall be entitled forthwith to rescind the contract and all other contracts with the RailTel. Any question or dispute as to the commission or any shall offence or compensation payable to the RailTel under this clause shall be settled by the Regional General Manager of RailTel, in such a manner as shall consider fit and sufficient and his decision shall be final and conclusive. In the event of rescission of the contract under this clause, the contractor will not be paid any compensation whatsoever except payment for the work done up to date of rescission.

7.14 LABOUR

Wages to Labour- The contractor shall be responsible to ensure compliance with the provisions of the Minimum Wages Act, 1948 (hereinafter referred to as the “said Act”) and the Rules made there-under in respect of any employees directly or through petty contractors or sub-contractors employed by him on road construction or in building operations or in stone breaking or stone crushing for the purpose of carrying out this contract. If in compliance with the terms of the contract, the contractor supplied any labour to be used wholly or partly under the direct orders and control of the RailTel whether in connection with any work

being executed by the contractor or otherwise for the purpose of the RailTel such labour shall, for the purpose of the clause, still be deemed to be persons employed by the contractor. If any moneys shall as a result of any claim or application made under the said Act be directed to be paid by the RailTel, such moneys shall be deemed to be moneys payable to the RailTel by the Contractor and on failure by the contractor to repay any moneys paid by it as aforesaid with seven days after the same shall have been demanded, the RailTel shall be entitled to recover the same form any moneys due or accruing to the contractor under this or any other contractor with the RailTel.

7.13.1 Apprentices Act

The contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act 1961 and the Rules and Orders issued the re-under from time to time in respect of apprentices directly through petty contractors or sub-contractors employed by him for purpose of carrying out the contract. If the Contractor directly or through petty contractor or sub-contractors fails to do so, his failure will be breach of the contract and the RailTel may, in its discretion, rescind the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

7.13.2 Provisions of Payments of Wages Act

The Contractor shall comply with the provisions of the payment of Wages Act, 1936 and the rules made there under in respect of all employees directly or through petty contractors or sub-contractors employed by him in the works. If in compliance with the terms of the contract, the contractor directly or through petty contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer such labour shall nevertheless be deemed to comprise persons employed by the contractor, and any moneys which may be ordered to be paid by the Engineers shall be deemed to be moneys payable by the Engineer on moneys due to the contractor in terms of the contract (whether under this contract or any other contract all moneys paid or payable by the RailTel by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this clause shall be final and binding upon the contractor.

7.13.3 Provision of Contract Labour (Regulation and Abolition) Act 1970

1. The contractor shall comply with the provision of the Contract Labour (Regulation and Abolition) Act 1970 and the Contract Labour (Regulation and Abolition) Act, Central Rules 1971 as modified from time to time, whenever applicable and shall also indemnify the RailTel from and against any claims under the aforesaid Act and the Rules.
2. The contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure

to fulfill this requirement shall attract the penal provision of the Contract arising out of the resultant non-execution of the work.

3. The contractor shall pay to the labour employed by him directly or through sub-contractors the wages as per provisions of the aforesaid Act and the Rules wherever applicable. The Contractor shall notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour indirectly engaged on the work including any engaged by his sub contractors in connection with the said work, as if the labour had been immediately employed by him.
4. In respect of all labour directly or indirectly employed in the work for performance of the contractor's part of the contract the contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and the Rules wherever applicable.
5. In every case in which, by virtue of the provisions of the aforesaid Act or the Rules, the RailTel is obliged to pay any amount of wages to a workmen employed by the contractor or his sub-contractor in execution of the work or to incur any expenditure in providing welfare and health amenities required to be provided under the aforesaid Act and the Rules or to incur any expenditure in providing welfare and health amenities required to be provided under the aforesaid Act the Rules or to incur any expenditure on account of the contingent liability of the RailTel due to contractor's failure to fulfill his statutory obligations under the aforesaid Act or the Rules the RailTel will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the RailTel under section 20, sub section (2) and section 2 sub-section (4) of the aforesaid Act, the RailTel shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/or from any sum due by the RailTel to the contractor whether under the contract or otherwise. The RailTel shall not be bound to contest any claim made against it under sub section (1) of section 20 and sub section (4) of section 21 of the aforesaid Act except on the written request of the contractor and upon his giving to the RailTel full security for all costs for which the RailTel might become liable in contesting such claim. The decision of the RailTel regarding the amount actually recoverable from the contractor as stated above shall be final and binding on the contractor.

7.13.4 Reporting of Accidents to Labor

The contractor shall be responsible for the safety of all employees directly or through petty contractors or sub-contractors employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineer's representative and shall make every arrangement to render all possible assistance.

7.13.5 Provisions of Workmen's Compensation Act

In every case, in which by virtue of the provision of section 12 sub section (1) of the Workmen's Compensation Act, 1923, RailTel is obliged to pay compensation to workman directly or through the petty contractor employed by the contractor or sub-contractor, in executing the work, RailTel will recover from the contractor the amount of the compensation so paid, and without prejudice to the right of RailTel under section 12 sub section (2) of the said Act. RailTel shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by RailTel to the Contractor whether under these conditions or otherwise, RailTel shall not be bound to contest any claim made against it under Section 12, Sub Section (1) of the said Act except on the written request of the contractor and upon his giving to RailTel full security for the all costs for which RailTel might become liable in consequence of contesting such claim.

7.15 Determination of Contract

Right of RailTel to determine the contract: The RailTel shall be entitled to determine and terminate the contract at any time, should in the RailTel's opinion, the cessation of the work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the RailTel of such determination and the reasons thereof shall be conclusive evidence thereof.

Payment on determination of contract: Should the contract be determined under sub clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the RailTel shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfactions of the Engineer. The RailTel's decision on the necessity and property of such expenditure shall be final and conclusive.

The contractor shall have no claim to any payment of compensation of otherwise, however on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.

7.16 TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR:

As per clause 30, Chapter-4A of tender document.

7.17 RIGHT OF RAILTEL AFTER TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR :

- a) The contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and contractor

shall not be entitled to recover or be paid any sum for any works thereto not actually performed under the contract, unless or until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the Contractor shall only be entitled to be paid the value so certified.

- b) The Engineer or Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery or buildings on the works or on the property on which these are being or ought to have been executed, and to retain the employ the same in further execution of the works without the contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.
- c) The Engineer shall, as soon as may be practicable after removal of the contractor fix and determine expert or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) has at the time of termination of the contract been reasonably earned by or would reasonably accrue to the Contractor in respect of the work then actually done by him under the contract what was the value of any unused or partially use materials, any constructional plants and any temporary works upon the site. The legitimate amount due to the contractor after making necessary deductions and certified by the Engineer should be released expeditiously.

7.18 SETTLEMENT OF DISPUTE AND ARBITRATION:-

As per clause 28, Chapter-4A of tender document

...END of Tender Document...

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RAILTEL