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RAILTEL

**A Navratna CPSE
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Southern Region Office

6A, 6th Floor, Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Corporate Office

Plate-A, 6th Floor, Office Tower2,
NBCC Building, East Kidwai Nagar, New Delhi-110023

www.railtel.in

Invitation for Expression of Interest

For

**“Supply Installation and Commissioning for Seamless Offshore Internet and ICCC for
RailTel’s End Customer”**

For Empanelled Business Associates and Prospective partners who have applied for
Empanelment with RailTel before floating of this EOI.

EOI No.: RailTel/SR/SC/Mktg/2025-26/EOI/013 Dt. 28/08/2025

EOI NOTICE

RailTel Corporation of India Ltd.
6A, 6th Floor, Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station, Begumpet, Hyderabad – 500016

EXPRESSION OF INTEREST

EOI No.: RailTel/SR/SC/Mktg/2025-26/EOI/013 Dt. 28/08/2025

RailTel Corporation of India Ltd., (hereafter referred to as RailTel) invites responses from RailTel Empanelled / Applied for Empanelment Partner/System Integrator for exclusive TEAMING ARRANGEMENT for Engagement of an Agency for **“Supply Installation and Commissioning for Seamless Offshore Internet and ICCC for RailTel’s End Customer.”**

The details of EOI are as under:

1	Date of EOI Floating	28/08/25
2	Last Date of Submission of Bid against EOI	02/09/25 by 15:00 Hours
3	Opening of Bids submitted against EOI	02/09/25 at 15:15 Hours
4	Number of packets	Single Stage (Single Packet System)
5	Estimated EOI Value	Rs. 14,78,50,422.66 (Incl. GST).
6	Portal for EOI Submission	https://railtel.enivida.com
7	EOI EMD	<p>Token EMD of Rs. 5,00,000/- to be submitted along with the EOI in form of BG or in the form of Insurance Surety Bond or Payment through NEFT/RTGS.</p> <p>Balance EMD of Rs. 9,79,000/- to be submitted within 7 days from date of intimation to successful bidder by RailTel in the form of Insurance Surety Bond or Payment through NEFT/RTGS.</p> <p>Advice of the Bank Guarantee (via SFMS IFN760COV) to be sent to advising bank (RailTel’s Bank) through SFMS by the issuing Bank (Applicant’s Bank),</p> <p>RailTel Corporation of India Limited Account No: 327301010373007, IFSC Code: UBIN0805050, Bank Name: Union Bank of India, Branch address: Union Bank of India, RP Road Branch, Bungalow no 109, New No 1-7-252 to 254 Oxford Street, SD Road, Near Park Lane Center Secunderabad – 500003</p> <p>No exceptions to startups and MSMEs for EMD.</p>

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

Bidders need to share copy in case of EMD in form of BG & in case of online payment bidder to share transfer details like UTR No. date and Bank along with the proposal.

Eligible bidders are required to direct all communications related to this Invitation for EOI document, through the following Nominated Point of Contact persons:

Level:1 Contact: Sh. Nirav Vaghela, Position: Sr. DGM/Mktg/SR
Email: niravvaghela@railtelindia.com Contact: +91- 9701611844

Level:2 Contact: Sh. P. Vikrant Kumar, Position: Jt. GM/Mktg/SR
Email: vikrantk@railtelindia.com Contact: 9003144205

SPECIAL CONDITIONS OF EOI

1. The EOI response is invited from RailTel's Empanelled Partners and Prospective Partners who have applied before floating of this EOI for Empanelment with RailTel only.
2. Responsibility of getting valid Letter of Empanelment from RailTel will be responsibility of Partner before finalization of this EOI. LOA/PO/Work Order will only be issued on submission of valid letter of empanelment from RailTel.
3. Partners are required to submit soft copy of response through Online on RailTel's e-nivida portal at <https://railtel.enivida.com> duly signed by Authorized Signatories with Company seal and stamp.
4. **All the documents must be submitted with proper indexing and page no.**
5. If, the interested partner is OEM/Distributor of OEM/Direct Partner of OEM, it should submit the supporting document for the same.
6. Consortium not allowed.
7. Transfer and Sub-letting: The Partner/consortium has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present.
8. Partner must agree to comply with all scope of work and terms and conditions including special terms and conditions, SLA and OEM technical & Financial documentation including technical certificates/others as per EOI
9. Selected partner will be responsible for facilitating RailTel to get/collect/prepare all the documentations related to end customer requirement/queries.
10. **Affidavit as per Annexure 4, Power of Attorney and EMD Bank Guarantee should be submitted in original and hard copy within 5 working days of submission of the EOI response at RailTel Regional Office (Southern Region, Hyderabad).**

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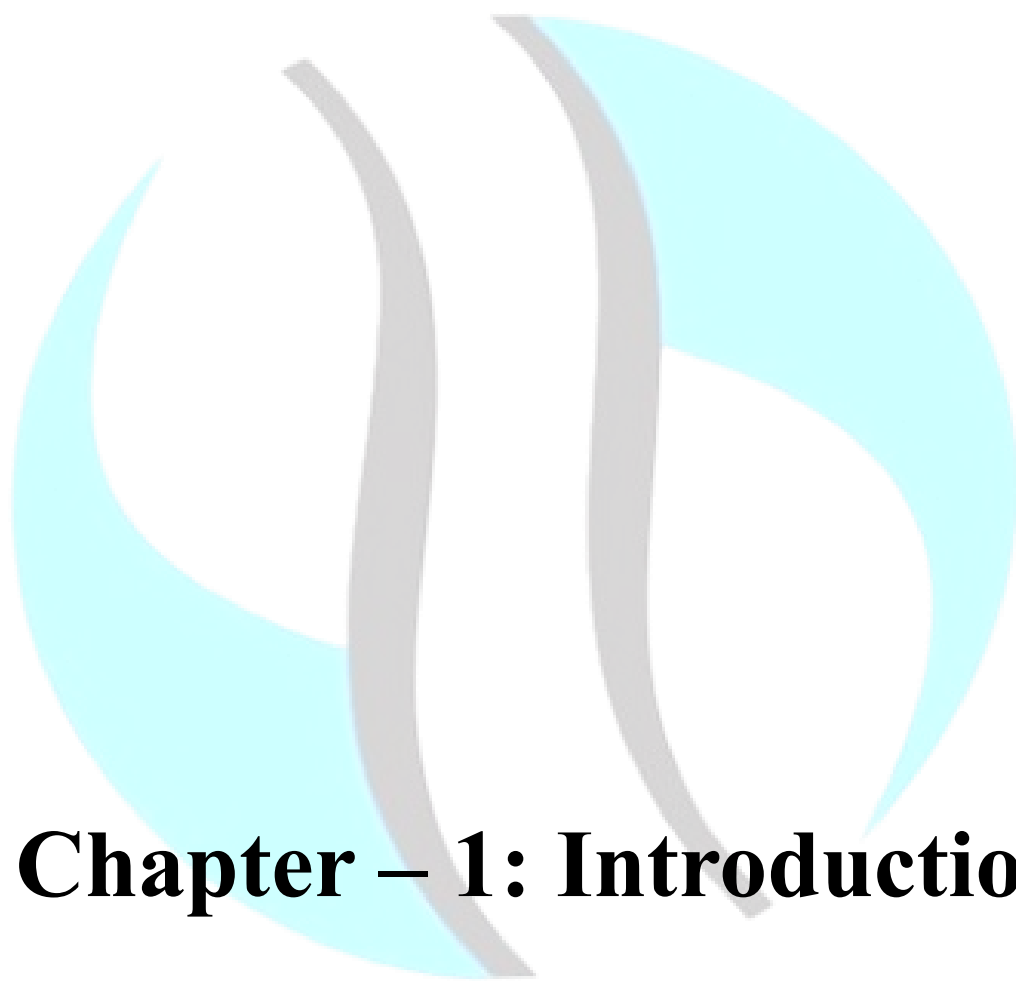
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Chapter – 1: Introduction

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1.1 RailTel – Introduction

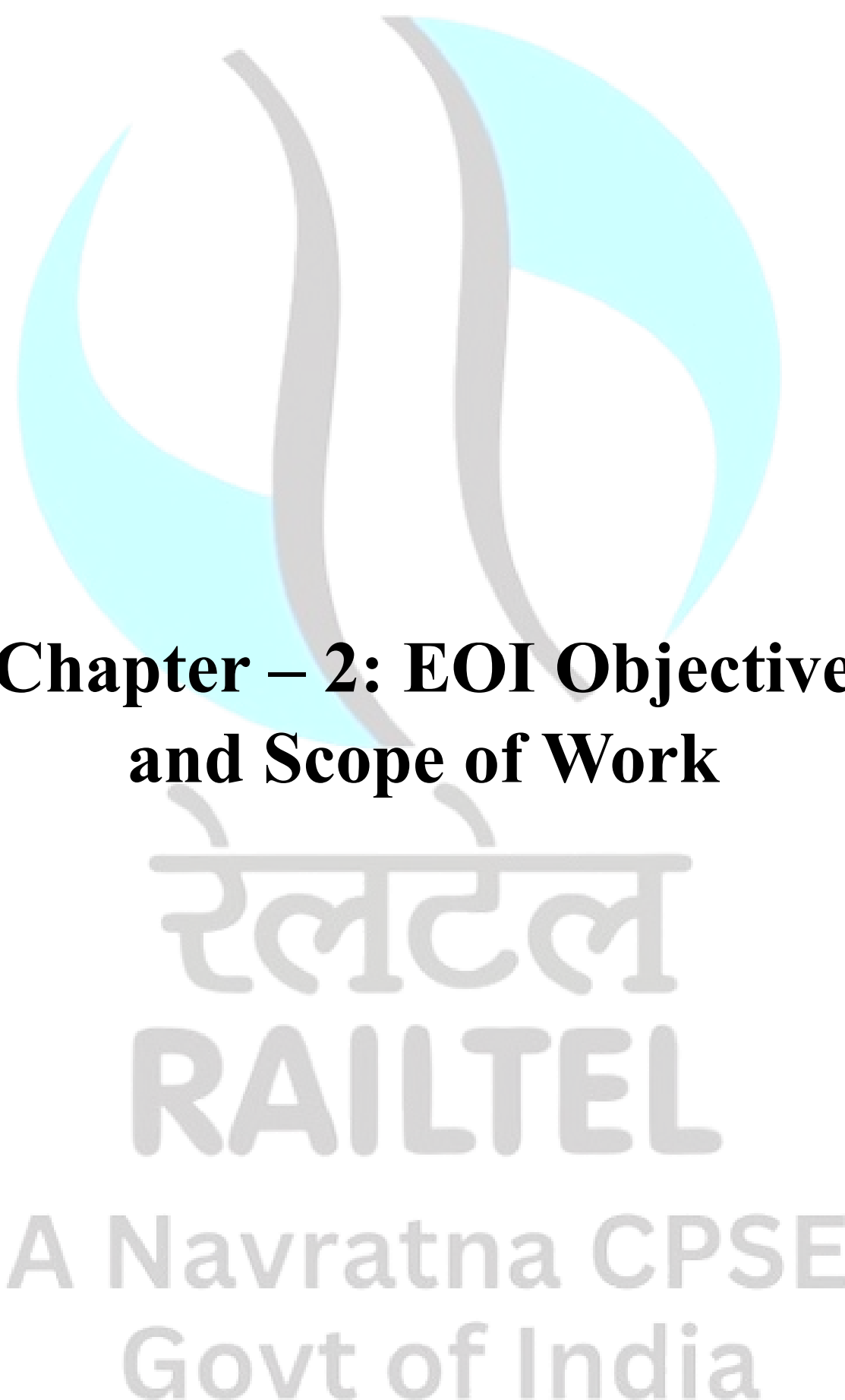
RailTel, a distinguished Nav-Ratna Central Public Sector Enterprise under Ministry of Railways, is recognised as one of the nation's most reliable end-to-end Telecom, IT, ICT, Railway Signalling solution provider. With a focus on excellence and innovation, RailTel has garnered unwavering trust as a partner in delivering cutting-edge services across sectors. RailTel is also working towards creating a knowledge society at multiple fronts and has been selected for implementation of various mission-mode projects for the Government of India in the telecom field. With a team of highly skilled and seasoned experts in Telecom, Signalling and IT, along with an extensive nationwide infrastructure, RailTel possesses the ability to deliver digital transformation services across the country and beyond border.

The ongoing wave of digitalisation is creating new prospects for companies like RailTel. In the specific context of the telecom sector, the advent of 5G is a significant growth factor. The demand for network and allied infrastructures is poised to propel RailTel's business forward. With our experience in setting-up and running Tier-3 Data Centres and cloud office, RailTel is implementing Data Centre services like cloud deployments for various customers. Thus by, leveraging RailTel's network infrastructure, data centres, security operation centre and in house capabilities, RailTel is helping in digitalisation by providing comprehensive ICT services. In essence, RailTel's goal is to be a supportive partner in guiding its customers through their Digital transformation endeavours.

For ensuring efficient administration across India, country has been divided into four regions namely, Eastern, Northern, Southern & Western each headed by Executive Director and Headquartered at Kolkata, New Delhi, Secunderabad & Mumbai respectively. RailTel's business service lines can be categorized into three heads namely B2G/B2B (Business to Government and Business to Business) and B2C (Business to customers).

RailTel's various operations are certified for, ISO 27001:2022-Certified for Information Security Management System, ISO 20000-1:2018-Certified for Information Technology Service Management System, ISO 9001:2015-Certified for Quality Management System, ISO 27017:2015 Certified for Information Security for Cloud Services, ISO 27018:2019-Certified for Data Privacy in Cloud Service, ISO 27033-Certified for Network Security, ISO 14001:2015-Certified for Environmental Management System Standard, ISO 17024:2012-Certified for Telecom Services, Railway Signalling & Telecom Training, Design Testing and Licensing Services and CMMI Maturity Level-4-Certified for Process Improvement. The RailTel's Data Centres are Tier-III (Design & Facility) certified.

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Chapter – 2: EOI Objective and Scope of Work

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2.1 Objective of EOI

This Expression of Interest (EOI) is intended to identify and empanel System Integrators with the technical and operational capability to design, supply, install, test, commission, and maintain a comprehensive offshore communication and monitoring system for the RailTel's End Customer. The scope includes the deployment of vessel-based VSAT connectivity solutions to enable reliable offshore internet access beyond the shore limit, installation of high-resolution CCTV systems aboard dredgers, and the establishment of a centralized Integrated Command and Control Center (ICCC) at RailTel's End Customer's headquarters.

The selected System Integrator will be invited to participate in a subsequent process to implement the solution in line with RailTel's End Customer's operational goals of enhancing offshore safety, ensuring connectivity in remote marine environments, and enabling centralized real-time monitoring of dredging fleet activity. This initiative supports the modernization of RailTel's End Customer's communication and surveillance infrastructure and aligns with national objectives related to digital transformation, maritime efficiency, and safety enhancement across strategic dredging operations.

2.2 Project Background

RailTel's End Customer plays a crucial role in supporting India's extensive network of waterways, essential for maritime trade, coastal management, and urban development. However, RailTel's End Customer currently faces significant operational challenges due to internet dis – connectivity beyond 5 nautical miles from the shore. This communication gap disrupts critical information exchange, delays emergency responses, and compromises overall safety, hindering RailTel's End Customer's mission of delivering worldclass dredging solutions. In response, this project aims to implement a seamless offshore internet facility for dredging vessels supported by a satellite communication, and to upgrade the existing command and control centre with advanced monitoring and computer vision capabilities. By addressing these issues, the project will enhance operational efficiency, bolster safety measures, and ensure reliable connectivity, thereby strengthening India's maritime infrastructure and contributing to sustainable national development.

2.3 Scope of Work

Through this Expression of Interest (EOI), RailTel Corporation of India Ltd. seeks to identify and onboard technically competent and experienced System Integrators who can deliver a comprehensive offshore communication and monitoring infrastructure for the RailTel's End Customer. The objective is to bridge critical operational gaps in real-time communication, safety oversight, and decision-making for dredging activities carried out in remote offshore regions beyond the reach of terrestrial networks.

The envisioned solution must ensure seamless, secure, and scalable deployment across RailTel's End Customer's dredging fleet and onshore facilities. The focus is on delivering a fully integrated system that enables round-the-clock connectivity, vessel-to-shore data flow, and centralized visibility into offshore operations.

Specifically, the proposed system is expected to achieve the following:

The proposed project is a comprehensive initiative aimed at modernizing and enhancing the operational capabilities of the RailTel's End Customer by ensuring seamless communication and advanced monitoring across its fleet. This upgrade is critical for maintaining robust and continuous connectivity, particularly in offshore environments where current internet limitations pose significant operational challenges. The project details are as follows:

1. Hardware Procurement and Installation:

All necessary hardware required for the data acquisition will be procured and installed. This includes top-notch camera equipment and server systems designed to guarantee optimal performance and reliability.

2. VSAT Communication System:

A VSAT (Very Small Aperture Terminal) communication system will be installed on the vessels. This system will be providing communication channel to maintain critical operational links.

3. Command and Control Center Upgrades:

The existing command and control center will be significantly upgraded to incorporate advanced technological solutions:

- Business Intelligence Dashboard integrated with AI to analyze the data sent from dredger to command center, trigger alerts and perform predictive analysis.
- Dedicated video walls will be installed to display reports generated after performing analytics on feeds in vessel from all 8 dredging vessels, ensuring comprehensive situational awareness.
- Video Monitoring System Software to view CCTV feed at multiple dredgers.

4. Dredger Data Acquisition:

The RailTel's End Customer will receive the essentially generated data. This will lead to easy and quick decision making in case of emergency.

2.4 Detailed Scope of Work

This project aims to implement a comprehensive offshore connectivity and centralized monitoring solution for the RailTel's End Customer. The scope includes the supply, installation, integration, testing, commissioning, and maintenance of vessel-based communication infrastructure, real-time surveillance systems, data capture modules, and the setup of an Integrated Command and Control Center (ICCC) at the shore. The solution is intended to support remote monitoring, integrating with AI Analytics to improve operational efficiency, and enhance safety compliance in offshore dredging environments.

2.4.1 Offshore Internet Connection

The network solution is designed with a tiered approach to address varying distances and connectivity needs:

VSAT Internet Connectivity: VSAT (Very Small Aperture Terminal): Connectivity will be provided through VSAT. Through a dedicated satellite communication channel operating at 3 Mbps, vessels will reliably transmit critical information to the control station.

2.4.2 Dredger CCTV Installation

Indicator Data Acquisition: The proposed solution involves the deployment of 10 high-resolution CCTV cameras to capture readings from legacy indicators that lack direct data output interfaces. These indicators, currently in use, do not support conventional data streaming or I/O communication protocols. To address this, the system will utilize fixed-position cameras strategically mounted to visually monitor the indicator displays:

- 8 cameras will be positioned to capture readings from individual analog/digital indicators.
- 1 camera will be placed in front of the DLM (Draft Load Monitor) screen.
- 1 camera will monitor the HYPAC screen.

The video feeds from these cameras will be transmitted to GPU-enabled processing servers, where advanced Optical Character Recognition (OCR) algorithms will extract the visual data into structured, machine-readable text format. This digitized output will then be seamlessly transmitted to the Command-and-Control Center for real-time monitoring, logging, and further analytics.

Surveillance CCTV: The solution also includes the installation of eight CCTV cameras strategically positioned across each dredger. This setup comprises seven bullet cameras and one PTZ (Pan-Tilt-Zoom) camera per dredger. All video footage will be stored locally on the dredger for a period of 90 days.

2.4.3 Integrated Command and Control Center (ICCC)

Software Solution

AI-Integrated Business Intelligence Dashboard: This solution will present data collected from dredgers in a clear and actionable format, enabling quick decision-making. It will include automated alerts based on sensor thresholds and predictive analytics powered by AI to identify trends and potential issues proactively.

Video Monitoring System: This software will stream and display live CCTV footage from eight dredgers on the Command-and-Control Centre's video wall, providing centralized real-time surveillance.

AI-Based Computer Vision Platform: This platform will analyse video feeds at dredgers using computer vision algorithms to detect and alert to various predefined operational and safety scenarios. These use cases will be modified based on actual requirements. Some of the use cases are mentioned below.

- 1. Causality Detection:**

The AI model continuously monitors the vessel's deck, identifying sudden changes in crew positioning that may indicate a fall overboard. This early detection enables rapid emergency response, thereby enhancing overall crew safety during operations.

- 2. Fire & Smoke Detection:**

By analysing visual cues for smoke or flames, this system promptly identifies the onset of a fire onboard. Early alerts allow for immediate emergency measures, protecting both personnel and critical equipment from potential hazards.

- 3. Piracy & Intruder Detection:**

This model scrutinizes the vessel's perimeter for any unauthorized boarders or suspicious activity, effectively identifying potential piracy threats. Quick detection supports swift security responses, ensuring the vessel's assets remain secure during operations.

- 4. PPE Kit Detection:**

Ensuring adherence to safety protocols, the AI system monitors whether crew members are wearing the required personal protective equipment. This proactive measure reinforces a culture of safety and reduces the risk of on-board injuries.

- 5. Automated Log keeping:**

The system automatically records and timestamps significant events and anomalies detected by the cameras. This digital log facilitates compliance, provides a comprehensive audit trail, and supports post-incident analysis.

- 6. Crew Activity Tracking:**

By tracking crew movements and operational activities, the model ensures that procedures are followed accurately and efficiently. This real-time monitoring helps optimize workflows and quickly identifies deviations from established safety protocols.

7. Spillage Detection – Marine Life & Environmental Monitoring:

Advanced algorithms detect any hazardous spills or leaks that could impact the marine environment. Early identification of spillage helps mitigate environmental risks and supports prompt corrective action to protect marine life.

Bidder is expected to demonstrate and execute additional 3 AI use cases as per RailTel's End Customer's requirements during the contract period.

Asset Management Tool

This tool will track all installed IT Asset belonging to this project, schedule maintenance activities, and maintain records of compliance and certifications for each piece of equipment, ensuring systematic asset oversight.

SCADA - Log Server Integration covers only integration of SCADA system on dredger No: 19,20 &21 where SCADA system is already installed and commissioned.

2.4.5 Hardware Solution

Processing Servers: These are high-performance servers designed for demanding computational tasks. They form the backbone of the ICCC infrastructure, handling data processing, application hosting, and other critical operations.

- Run the core ICCC applications and services.
- Process and analyse data from various sources.
- Support real-time operations and decision-making.

Admin Servers: These servers are dedicated to administrative tasks and system management.

- Manage user accounts and permissions.
- Monitor system health and performance.
- Deploy software updates and patches.
- Provide a centralized platform for administrative tools.

AI Training Server: A specialized server optimized for training Artificial Intelligence (AI) models.

- Develop and train AI algorithms for use cases like, safety monitoring, and optimizing dredging operations.
- Process large datasets required for AI model training.

Switch: A high-speed network switch facilitating communication between servers and other network devices.

- Enable fast and efficient data transfer within the ICCC network.
- Support high-bandwidth applications and real-time data streaming.

Cables: High-speed cables connecting the servers and switch.

- Transmit data between the servers and the network switch.
- Ensure reliable and high-performance connectivity.

Network Rack: A standardized cabinet for housing servers, switches, and other network equipment.

- Organize and consolidate network hardware.
- Provide physical security and protection for the equipment.

UPS (Uninterruptible Power Supply): A battery backup system that provides power to the ICCC infrastructure in case of a power outage.

- Ensure continuous operation of critical systems during power disruptions.
- Prevent data loss and system downtime.

This scope of work is indicative in nature. Bidders are expected to propose robust, scalable, and environmentally resilient solutions that align with the operational needs of RailTel's End Customer's offshore fleet and support infrastructure.





Chapter – 3: EOI Guidelines

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3.1 EOI Guidelines

3.1.1 Language of Proposal:

The proposal and all correspondence and documents shall be written in English only.

3.1.2 RailTel's Right to Accept/Reject responses:

RailTel reserves the right to accept or reject any response and annul the bidding process or even reject all responses at any time prior to selecting the partner, without thereby incurring any liability to the affected partner or Partner or without any obligation to inform the affected partner or partners about the grounds for RailTel's action.

3.1.3 EOI response Document:

The partner is expected to examine all instructions, forms, terms and conditions and technical specifications in the bidding documents. Submission of bids, not substantially responsive to the bidding document in every aspect will be at the partner's risk and may result in rejection of its bid without any further reference to the partner.

All pages of the documents shall be numbered and signed by the partner including the closing page in token of his having studied the EOI document and should be submitted along with the bid.

Partner has to agree to comply with all scope of work and terms and conditions including special terms and conditions, SLA and OEM technical & Financial documentation including technical certificates/others as per EOI.

3.1.4 Period of Validity of bids and Bid Currency

Bids shall remain valid for a period of 90 days from the date of last date of EOI Bid submission.

3.1.5 Bidding Process

Online mode through RailTel's e-nivida portal. Single packet system.

3.1.6 Bid Earnest Money (EMD)

3.1.6.1 The Partner shall furnish a sum as given in EOI Notice via in the form of BG/DD/online transfer, before submission of final bid to the end customer as given in EOI Notice.

3.1.6.2 Offers not accompanied with valid EOI Earnest Money Deposit shall be summarily rejected.

3.1.6.3 No exemption for Start-Ups and MSME towards EMD.

3.1.6.5 In case of sole partner/ consortium offer is selected for bidding, sole partner/consortium has to furnish Earnest Money Deposit (for balance amount as mentioned in the customer's Bid as and if applicable) for the bid to RailTel. The selected Partner shall have to submit a Bank Guarantee against EMD in proportion to the quoted value/scope of work to RailTel before submission of bid to end customer as and if applicable.

3.1.6.6 Return of EMD for unsuccessful Partners: EOI EMD of the unsuccessful Partner shall be returned without interest after completion of EOI process.

3.1.6.7 Return of EMD for successful Partner: EOI-EMD & Earnest Money Deposit (balance proportionate EMD) if applicable of the successful partner will be discharged /

returned as promptly as possible after the receipt of RailTel's EMD/BG from the Customer and or on receipt of Security Deposit Performance Bank Guarantee as applicable (clause no. 6.2) from Partner whichever is later.

3.1.6.8 Forfeiture of EOI EMD or EOI EMD & EMD (balance proportionate EMD) and or Penal action as per EMD Declaration:

3.1.6.8.1 The EOI EMD may be forfeited and or penal action shall be initiated if a Partner withdraws his offer or modifies the terms and conditions of the offer during validity period.

3.1.6.8.2 In case of non-submission of SD/PBG (as per clause no. 6.2) lead to forfeiture of EOI EMD, EMD (balance proportionate EMD) if applicable and or suitable action as prescribed in the EMD Declaration shall be initiated as applicable.

3.2 Security Deposit / Performance Bank Guarantee (PBG)

3.2.1 Security Deposit (SD) / Performance Bank Guarantee (PBG) will be back-to-back in value terms as per customer's LOA/Work Order/PO.

3.3 Last date & time for Submission of EOI response

EOI response must be submitted to RailTel at <https://railtel.enivida.com> specified in the preamble not later than the specified date and time mentioned in the preamble.

3.4 Modification and/or Withdrawal of EOI response

EOI response once submitted will be treated, as final and no modification will be permitted except with the consent of the RailTel. No Partner shall be allowed to withdraw the response after the last date and time for submission. The successful Partner will not be allowed to withdraw or back out from the response commitments. In case of withdrawal or back out by the successful Partner, the Earnest Money Deposit shall be forfeited, and all interests/claims of such Partner shall be deemed as foreclosed. RailTel may also consider for blacklisting of partner for 5 Years.

3.5 Clarification of EOI Response

To assist in the examination, evaluation and comparison of bids the purchaser may, at its discretion, ask the Partner for clarification. The response should be in writing and no change in the price or substance of the EOI response shall be sought, offered or permitted.

3.6 Period of Association/Validity of Agreement

RailTel will enter into an agreement with selected partner with detailed Terms and conditions.

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Chapter – 4: Eligibility Criteria

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4.1 Partner's Profile

The partner shall provide the information of the below table on company letterhead:

SN	ITEM	Details
1.	Full name of Partner's firm	
2.	Full address, telephone numbers, fax numbers, and email address of the primary office of the organization / main / head / corporate office	
3.	Name, designation and full address of the Chief Executive Officer/Director of the partner's organization, including contact numbers and email Address	
4.	Full address, telephone and fax numbers, and email addresses of the office of the organization dealing with this EOI	
5.	Name, designation and full address of the person dealing with the EOI to whom all reference shall be made regarding the EOI enquiry. His/her telephone, mobile, Fax and email Address	
6.	Bank Details (Bank Branch Name, IFSC Code, Account number)	
7.	GST Registration number	

4.2 Eligibility Criteria for Bidding Business Partner of RailTel

SN	Description	Documents to be uploaded
A) General Eligibility		
1	<p>RailTel's Empanelled Partners and Prospective Partners who have applied before floating of this EoI for Empanelment with RailTel only.</p> <p>Note: Responsibility of getting valid Letter of Empanelment from RailTel will be responsibility of Partner before finalization of this EoI. LoA/PO/Work Order will only be issued on submission of valid letter of empanelment from RailTel.</p>	<p>For Empanelled partners: Empanelment letter issued by RailTel and Copy of Valid PBG/Payment Proof of empanelment security deposit.</p> <p>For Prospective Partners: Proof of Application (mail copy indicating/highlighting date of application) and payment proof of empanelment security deposit.</p>
2	<p>a) Should be an organization registered under the provisions of the Indian Companies Act, 2013/ Companies Act, 1956 or a partnership firm registered under the Indian Partnership Act, 1936 or the Limited Liability Partnerships Act, 2008 or an organization registered under society Act.</p> <p>b) Registered with the Income Tax Authorities</p> <p>c) Registered with GST Network</p>	<p>a) Certificate of Incorporation/Registration Certificate</p> <p>b) Copy of PAN Card.</p> <p>c) Copy of GST registration certificate.</p> <p>d) Letter from Company Secretary/ Statutory Auditor for operating business for last 3 years as on date of bid submission.</p> <p>e) MOA and AOA.</p>

	d) Should have been operating for the last 3 years as on date of bid submission (applicable only for non-MSE bidders).	
3	Cover letter of the bid with valid authorization details of the person(s) signing the bid document as on date of bid submission.	a) Cover letter signed by an authorized signatory of the bidder as per Annexure 1 b) Power of Attorney (POA) on Non-Judicial stamp paper of Min Value of Rs. 100/- along with Board Resolution.
4	Notarized Affidavit as per Annexure 4 (Bids without Notarized Affidavit as per Annexure 4 will be summarily rejected)	Notarized Affidavit as per Annexure 4
B) Financial Eligibility		
5	The bidder should have minimum cumulative turnover from operations in the previous 3 financial years and the current financial year at least 22.18 Cr..	Copy of the audited financial statement and ITR certified by CA for required financial years. Audited Accounts (Balance Sheet and Profit and Loss Account, ITR certified by CA etc.) with Certificate from CA/CS/Cost Accountant with valid UDIN for last 3 FYs and current financial year.
C) Technical Eligibility		
6	The bidder must have successfully completed any of the following Similar Projects during last 5 years ending last day of month before the one in which EOI is invited: Three Project works each costing not less than 4.44 Crs. Or Two Project works each costing not less than 5.91 Crs. Or One Project work costing not less than 8.87 Crs. Projects must be for Government/PSUs or public-listed clients or private firms and must be supported by relevant work orders and completion certificates or equivalent documentation.	Work Order and Completion Certificate from user department indicating the date of completion of work and value of work, nature of work etc/Partial Completion with Documentary Proof of Payment Receipt from CA. (with Valid UDIN number)
7	Client references and contact details (email/ landline/ mobile) of customers for whom the Bidder has executed similar projects.	Bidder should specifically confirm on their letter head in this regard
8	MAF from OEM	As per Annexure 7
9	Undertaking that bidder will not submit directly or indirectly their bids/offer and techno-commercial	Undertaking on Company's letter head.

	solution/association to RailTel's End Customer once selected in this EOI for teaming arrangement.	
10	Technical Compliance	Clause wise Technical Compliance as per Annexure 17 of this EOI

Definition of Similar Project: Project should have any of the above two parameters.

- a. SITC of CCTVs on marine vessels with O&M.
- b. Setting up ICCV with O&M.
- c. SITC of VSAT on marine vessels with O&M.
- d. AI Integration with ICCV/VMS for generation of dashboard and intrusion detection

All the attached Annexures and Forms in Chapter – 7 should be submitted along with EOI response.





Chapter – 5: Evaluation and Payment Terms

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5.1 Evaluation Criteria

- 5.1.1** The Partners are first evaluated based on the Eligibility Criteria as per chapter 4 above.
- 5.1.2** The Partner who fulfils the Eligibility criteria of Bidding sole partner/ consortium shall be further evaluated based on Technical Evaluation and Financial evaluation.
- 5.1.3** For the opened bid as per outcome of the Eligibility criteria above, the partner will be selected on the lowest quote (L-1) basis for complete 'Scope of Work' as mentioned in the EOI document and documents of technical specifications of End Customer, subject to the respective overall bid complies to the requirements of this EOI. The so selected partner will be termed as 'Commercially Suitable Partner (hereafter referred to as 'PARTNER')'. It is re-mentioned that the final selection of PARTNER will be on the L-1 basis only.
- 5.1.4** RailTel reserves the right to have negotiation with the PARTNER at any stage before issuing Work Order.
- 5.1.5** The Partner with lowest commercial (L1) offer will be selected for teaming arrangement for optimizing technical and commercial solution to end customer.
- 5.1.6** RailTel reserves the right to accept or reject the response against this EOI, without assigning any reasons. The decision of RailTel is final and binding on the participants. The RailTel evaluation committee will determine whether the proposal/ information is complete in all respects and the decision of the evaluation committee shall be final. RailTel may at its discretion assign lead factor to the Partner as per RailTel policy for shortlisting partner against this EOI.
- 5.1.7** All General requirement mentioned in the Technical Specifications are required to be complied. The solution proposed should be robust and scalable

5.2 Project Delivery Schedule

SN	Project Phase	Timeline	Project Activity
1	Hardware Delivery	T + 1 Month	<ul style="list-style-type: none"> Project Kick-off & Planning: finalize requirements, resource allocation Offshore Internet Infrastructure initiation: VSAT site survey, initial configuration design Begin procurement: network gear, servers, cameras, racks, UPS Camera procurement & mounting plan- Setup network racks, switches & UPS
2	Installation & Commissioning (ICCC & Port)	T + 2 Months	<ul style="list-style-type: none"> Indicator data-capture setup Full ICCC hardware-stack installation Command & Control Center software deployment AI platform deployment for PPE & intruder detection Business Intelligence dashboard installation Video monitoring system setup Finalize & deploy asset-management tool
3	Installation & Commissioning (Dredger)	T + 3 Months	<ul style="list-style-type: none"> Dredger survey for camera positioning Begin OCR – algorithm integration on dredger feeds Test basic OCR on sensor feeds Deploy processing/ admin/ training servers aboard
4	UAT & Go-Live	T + 100 Days	<ul style="list-style-type: none"> System integration & final testing (ICCC, port & dredger) Conduct end-to-end user-acceptance testing (UAT)

SN	Project Phase	Timeline	Project Activity
			<ul style="list-style-type: none"> • Staff training for ICCC operators, port teams & vessel crew
5	Hypercare	T + 130 days	<ul style="list-style-type: none"> • Ongoing performance monitoring & troubleshooting • Bug-fixes and incremental tweaks • Continued user handholding and knowledge transfer • Handoff to operations: final documentation & transition to quarterly support cycles
6	Support	T + 24 Months after Hypercare	Support to RailTel's End Customer for over 24 months after the RailTel PAC.

T- The date on which RailTel places WO/LOA to successful bidder.

5.3 Payment Terms

5.3.1 All payments will be made on a back-to-back basis on value basis.

5.3.2 All payments will only be made against the submission of PBG

5.3.3 Payment will be made after receiving the invoice for the work / services and after RailTel has received the payment from End Customer for the same work / services. Any deduction/Penalties levied by End Customer on invoices of RailTel will be carried back-to-back in value terms and will be deducted from PARTNER's invoices, subject to the cause to deduction / penalty is due to deviation in terms and conditions of service standards by the PARTNER.

5.3.4 Invoices should be submitted to RailTel on RailTel's BTS portal <https://bts.rcil.gov.in>.

5.3.5 Documents list required at the time of payment/invoice submission by selected partner shall be: -

- PO copy issued to selected vendor.
- Submission/Declaration of applicable BG amount against PO issued to selected partner/vendor.
- Signed Agreement Copy
- Original Invoice for the period claimed.
- Certified Proof of Completion of Work from RailTel's Representative/RailTel's End Customer.
- TDS declaration (Income Tax Declaration – TDS ON Software/Licenses Sales Under Notification No. 21/2012 [F.No.142/10/2012-SO (TPL)J S.O. 1323(E), Dated 13-6-2012).
- PAN, GST Registration Certificates.

5.3.6 Payment Schedule

All the below Milestone payments will be against Bank Guarantee of equal value valid up to Go live + one month.

SN	Description	Payment
1	Supply and Delivery of hardware portion.	70% of Hardware supply portion.

2	Installation of hardware Portion.	10% of Hardware supply portion.	80% of the I&C portion of H/W prorate basis.
3	Delivery and Installation of software portion.	40% of Software supply portion.	40% of I&C Software Portion on prorate basis.
4	Customization of software as per scope of work.	40% of Software supply portion.	40% of I&C Software Portion on prorate basis.
5	UAT & Go Live	10%	This is on total Value excluding O&M
6	Hypercare	5%	This is on total Value excluding O&M
7	Submission of PBG	5%	This is on total Value excluding O&M.
8	O&M (First Year and Second Year)	On Quarterly Completion prorate basis of the yearly amount.	On O&M portion

##Any deduction/LD/Penalty levied by customer on RailTel will be deducted from Partner in value terms.

#Payment will only be released once proof of submission of GSTR-1 and GST-3B is submitted for claimed invoice.

#The last bills shall be settled after the end of the contract period after adjusting all outstanding dues.

#No interest is payable at any amount whatsoever.

5.4 Bill Passing Authority

RailTel's authorized representative as mentioned in Work Order/Agreement

5.5 Bill Paying Authority

RailTel's authorized representative as mentioned in Work Order/Agreement

5.6 Delivery Location

The setup of ICCC is at RailTel's End Customer Head office in Visakhapatnam and all the hardware pertaining to ICCC should be delivered at RailTel's End Customer HO.

The Vessel Hardware shall be delivered to respective Vessel working in a port and location. The selected partner should get confirmation from RailTel/RailTel's End Customer for the location of the vessel before dispatch of all the Hardware pertaining to the respective Vessel.

RailTel's End Customer Vessels depending on the RailTel's End Customer contractual obligations with Ports may work anywhere in Indian Ports. All required permissions/Gate pass for the delivery of the material and requisite manpower for I&C at RailTel's End Customer HO, respective ports and vessels to be arranged by RailTel's End Customer.

5.7 Warranty

All the Hardware and Software to be supplied under onsite warranty from manufacturer for 3 years from the date of installation and Commissioning. For software, any patches/security updates/bug fixes etc. shall be free of cost during the entire period of contract.

5.8 Additional Information

1. VSAT Connectivity Subscription/Recurring Usage charges shall be intimated by the bidder to RailTel in a separate quotation which will not be the part of evaluation.

However, the charges for VSAT connectivity will be paid on actual usage by RailTel's Customer directly to the VSAT service provider.

2. Internet Additional Ports: The Network equipment portions at the Vessel end shall have internet ports for connecting existing internet services available in Vessel such as Reliance/Airtel or any other operator 4G and new internet service provider connections such as Starlink/5G services or any other operator as and when available and all configurations to be made both at vessel side and HO side so that it works by just plugging in the existing/new service provider's connection.

Till that time, they may connect existing 4G based Internet service available in Vessels from the existing service provider Reliance Jio/Airtel or available another operator.

3. Seamless Connectivity between HO & Vessel: There shall be seamless connectivity between RailTel's Customer vessels & Head Office. The Vessels shall be able to access any HO computers such as ERP and HO users shall be able to access any computer in the vessel such as Hypack PC. In the initial phase as VSAT has limited bandwidth, priorities may be defined for the different services accessible. But when new internet connections with higher bandwidth and new technologies such as 5G/Starlink are available and provided in the vessel side, there should be seamless connectivity between HO & Vessels.

4. Patent Rights

1. Indemnity – Selected Partner shall always indemnify RailTel against all claims which be made in respect of the materials for infringement of any right protected by patent, registration of designs or trademark, provided always that in the event of any claim in respect of alleged breach of patent, registered designs or trademark being made against RailTel/Customer of RailTel. RailTel will notify the selected bidder of the same and the selected bidder will at his own expense settle any such dispute or conduct / defend any litigation that may have arisen there from.

2. Selected Partner shall also indemnify and keep indemnified the RailTel against all or any claims of any nature whatsoever arising out of the performance of selected bidder obligations under the Contract.

5. Additional Extensions of O&M

RailTel reserves the right to extend the O&M for additional 3-year period or as required by RailTel's end customer.

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Chapter – 6: General Guidelines

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6.1 Service Level Agreement (SLA)

The selected partner will be required to adhere to the SLA as given in EOI for given scope of work and the SLA breach penalty will be applicable back – to – back on the selected partner on value terms. The SLA scoring and penalty deduction mechanism for in-scope of work area shall be followed as specified in the EOI. All associated clarifications, responses to queries, revisions, addendum and corrigendum, associated Prime Services Agreement PSA/MSA/SLA also included.

Note: Any deduction/LD/Penalty levied by customer on RailTel will be deducted back – to – back from Partner in value terms

This section outlines the indicative service level expectations that shall govern the Operations & Maintenance (O&M) phase of the proposed offshore connectivity and centralized monitoring solution.

The sustained system availability, timely support, preventive maintenance, and issue resolution as per the following broad parameters shall be ensured by Bidder:

System Uptime and Availability

Component	Minimum Uptime Requirement	Measurement Frequency
ICCC Hardware & Dashboard Systems	98% monthly	Monthly basis
CCTV and OCR Equipment (on board)	90% monthly	Monthly basis

Downtime due to scheduled maintenance with prior approval shall be excluded from SLA calculations.

Incident Response and Resolution Timelines

This SLA shall be enforceable for a period of **24 months (2 Years)** post **Go-Live**, with quarterly reviews and penalty calculations. It may be revised through mutual agreement if the scope is materially altered.

Severity Level	Description	Response Time	Resolution Time
Critical	Complete system failure	2 hours	Within 8 hours
High	Degraded performance or partial system disruption	4 hours	Within 24 hours
Medium	Minor functional issues with no major operational impact	8 hours	Within 72 hours
Low	Cosmetic/UI issues or feature requests within the defined scope of work	1 working day	Within 7 working days

Preventive Maintenance (PM) and Health Checks

Preventive maintenance must be carried out **once every quarter** for all on board and ICCC components.

Reports of PM activities, system health logs, and firmware/software updates must be submitted to RailTel's End Customer.

Reporting and Monitoring

The access shall be provided to remote monitoring dashboard showing live status of connectivity, hardware health, and alert history.

Monthly SLA compliance reports must be submitted in a prescribed format including:

Uptime statistics, Incident log with resolution records, Preventive maintenance summary, Escalation and exception handling.

Penalty Structure

To ensure accountability and sustained service quality, penalties shall be applicable for non – compliance with defined Service Level Agreements (SLAs). The purpose of this structure is to enforce timely delivery, operational continuity, and adherence to preventive and corrective maintenance obligations.

The final penalty clauses shall be detailed in the Contract Agreement. However, the indicative penalty framework is provided below:

Uptime – Related Penalties

Component	SLA Threshold	Penalty for SLA Breach (Per Month per Site/Vessel)
ICCC Availability	≥ 98%	0.5% of monthly O&M value on for every 1% shortfall or part thereof below threshold
CCTV / OCR Equipment (per unit)	≥ 90%	₹ 500 per faulty camera/OCR module beyond allowable downtime limit

Repeated Non-Compliance

Three (3) consecutive months of SLA violation for any single component or service shall trigger a review. RailTel may impose additional penalties, initiate escalation, or consider termination of the O&M agreement as per contract terms.

Exclusions from SLA Penalty

To ensure fair application of the Service Level Agreement (SLA), certain events and circumstances beyond the control of the bidder, the bidder shall be exempt from SLA-related penalties. These exclusions recognize that not all service disruptions arise from the bidder negligence or system deficiencies.

The following conditions shall be treated as valid exclusions from the penalty framework, subject to appropriate documentation and approval by the designated authority:

A. Force Majeure Events (applicable from the date of LOA to Go Live and Subsequently during SLA).

Natural disasters such as floods, earthquakes, cyclones, lightning, or fire, Acts of war, terrorism, civil disturbance, or sabotage. Government-imposed lockdowns, embargoes, or changes in law/regulations directly impacting service continuity.

B. Authorized Downtime

Scheduled maintenance or upgrades explicitly approved by RailTel's End Customer in advance. Planned downtime for configuration changes, version upgrades, or preventive activities, notified with at least 48 hours prior intimation.

C. External Infrastructure Failures

Downtime caused by failures in underlying infrastructure not within the scope of M/s RailTel, including:

- 1) Port-side or provided power supply interruptions,
- 2) Failures in upstream connectivity (e.g., satellite operator outage),
- 3) Non-availability of access to restricted or secured vessel zones despite coordination.

D. Customer-Induced Delays

Delays in approvals, inspections, or signoffs from RailTel's End Customer side affecting task timelines. Unavailability of site access, escort personnel, or coordination resources at the deployment location.

E. Third-Party Interference

Malicious damage, theft, or tampering of installed equipment by third parties or unauthorized personnel. Security restrictions or jurisdictional limitations in certain waters (e.g., denial of satellite signals in foreign-controlled maritime zones).

F. Acts of God or Events beyond Reasonable Control

Any other event beyond the reasonable control that could not have been foreseen or mitigated with due diligence, subject to review by RailTel/ RailTel's End Customer

Note: For any of the above exclusions to be considered valid, same must be notified within 24 hours of occurrence and submit verifiable evidence and justification within 3 working days. Final discretion for exemption shall rest with the project authority.

Escalation Matrix

To ensure timely resolution of incidents, service requests, and compliance issues during the Operations & Maintenance (O&M) phase, a clearly defined Escalation Matrix shall be provided. This matrix will serve as a structured mechanism for raising unresolved issues to higher levels of authority within the bidder's organization.

The Escalation Matrix must include the following tiers:

Level	Designation	Responsibility	Expected Response Time	Mode of Contact
Level 1	Support Engineer / Helpdesk	Initial troubleshooting, logging, and first-level response	Within 1 hour	Phone, Email, Ticketing System
Level 2	Field Technical Lead	Escalation for unresolved issues, field coordination	Within 4 hours	Email, Mobile
Level 3	Regional / Project Manager	Issue prioritization, resource alignment, timeline control	Within 8 hours	Email, Phone
Level 4	Account / Delivery Head	Strategic resolution, compliance assurance, SLA deviation	Within 24 hours	Email, Official Letter (if required)

Requirements for Submission

The following shall be submitted prior to Go-Live:

A **named Escalation Matrix** with contact details (email, mobile and designation) for each level.

A **ticketing and incident reporting mechanism** to be used for SLA monitoring and service tracking.

A process for periodic review of escalated items and root-cause resolution documentation.

Responsibilities

Ensure availability of responsible personnel as per escalation timelines.

Maintain up-to-date escalation contact information throughout the contract period.

Participate in monthly or quarterly SLA review meetings as required.

6.1.8 Reporting & Reviews

To ensure transparency, accountability, and continuous service improvement, M/s RailTel shall ensure adherence to a defined reporting and review protocol during the Operations & Maintenance (O&M) phase. This framework will enable to monitor system performance, service levels, and compliance with contractual obligations.

A. Reporting Requirements

The bidder shall submit the following reports at prescribed intervals:

Report Type	Frequency	Content Overview
Uptime & Downtime Report	Monthly	Availability of ICCC, and on board systems; breakdown by component and location
Incident Log & Resolution Report	Monthly	All logged issues, severity, response/resolution times, and pending items
Preventive Maintenance Report	Quarterly	PM activities carried out, schedules met/missed, status of equipment health
SLA Compliance Report	Monthly	SLA achievement vs. targets, deviations, penalties (if any), and corrective actions
Asset Health & Inventory Report	Bi-Annually	Status of hardware/software components, firmware versions, replacements (if any)
Exception & Escalation Report	As Occurs	Incidents escalated beyond Level 2 or exceeding SLA thresholds

All reports shall be submitted in soft copy via email in PDF and/or Excel formats, using templates approved.

B. Performance Review Meetings

To evaluate the performance and address any concerns, periodic review meetings shall be convened:

Monthly Reviews:

Conducted virtually or on-site with M/s RailTel's nodal officer and RailTel's End Customer stakeholders.

Agenda: Report discussion, open issues, compliance scorecard, and follow-up actions.

Quarterly Reviews:

Formalized project governance reviews involving higher management of both parties.

Focused on strategic metrics, recurring issues, change requests, and roadmap alignment.

Ad-hoc Reviews:

May be called in the event of critical failure, major deviation, or audit requirement.

6.2 Performance Bank Guarantee (PBG)

6.2.1 In case of successful participation the PARTNER shall at its own expense, deposit PBG within fifteen (15) days of the notification of award (done through issuance of the Purchase Order / Work Order/ LOA etc.) and communicated through email, an unconditional and irrevocable Performance Bank Guarantee (PBG) from a Nationalized/ Commercial Scheduled Indian Bank (either private or PSU) but not from any co-operative bank or NBFC as per the format enclosed in this EOI, payable on demand, for the due performance and fulfilment of the contract by the PARTNER. This PBG will be for an amount of '5 %' of the contract value. The claim period should be one year more than the expiry date. All charges whatsoever such as premium, commission, etc. with respect to the PBG shall be borne by the PARTNER. Besides, if the total BG amount comes upto ₹5 Lakhs, then same may be deposited through DD/RTGS/NEFT. Along with submission of PBG, PARTNER needs to submit PBG issuing bank's SFMS report.

6.2.2 Under SFMS system, a separate advice of the Bank Guarantee (via SFMS IFN760COV) to be sent to advising bank (RailTel's Bank) through SFMS by the issuing Bank (Applicant's Bank), after which the paper Bank Guarantee would become operative. Similar process to be followed for Bank Guarantee amendment/extension also and separate advice (via SFMS IFN767COV) advising bank (RailTel's Bank) through SFMS by the issuing Bank (Applicant's Bank).

6.2.3 PBG should have validity of **30 months**. The PBG may be discharged / returned by RailTel upon being satisfied that there has been due performance of the obligations of the PARTNER under the contract. However, no interest shall be payable on the PBG. In the event, PARTNER being unable to service the contract for whatsoever reason, RailTel would invoke the PBG at its discern. Notwithstanding and without prejudice to any rights whatsoever of RailTel under the contract in the matter, the proceeds of the PBG shall be payable to RailTel as compensation for any loss resulting from the PARTNER's failure to complete its obligations under the contract. RailTel shall notify the PARTNER in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which the PARTNER is in default.

6.2.4 RailTel shall also be entitled to make recoveries from the PARTNER's bills, PBG or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.

6.2.5 If the service period gets extended by virtue of extension of same by End Customer, PBG should also be extended accordingly.

6.2.6 During the contract period, RailTel may issue Purchase Order(s) for the additional services ordered by End Customer (in case) to RailTel.

6.2.7 In case the End Customer sought PBG of the contract in the terms of Indemnity Bond from RailTel, the selected partner has to provide the equivalent value PBG from scheduled Bank to RailTel. No Indemnity Bond from Selected Partner will be accepted in lieu of PBG from Scheduled Bank.

6.2.8 In case End Customer has sought any other types of PBG in this contract at present or in future or else Integrity Pact PBG (presently or in future), same remain applicable on selected Partner/Consortium. The said PBG will be issued by Selected Partner from

Scheduled Bank favoring RailTel Corporation of India Limited. No Indemnity Bond in lieu of such PBG will be accepted by RailTel.

6.2.9 If End Customer ask for submission for value more than 5%, same also needs to be submitted by the selected Partner /Consortium.

6.2.10 PBG will be discharged/released only after receipt of RailTel's PBG from RailTel's End Customer.

6.2.11 The successful bidder will have to pay additional security deposit of 5% of contract value within 2 weeks of the issuance of the LOA/VO. The validity of the Security deposit should be 12 months.

6.3 Insurance

The selected Partner agrees to take insurances to cover all the elements of the project under this EOI including but not limited to Manpower, Hardware, Software etc. as per End Customer EOI specified terms.

6.4 Liquidity Damages (LD):

Any deduction/LD/Penalty levied by customer on RailTel will be deducted back – to – back from Partner in value terms.

For all liquidity damages mentioned above are exclusive of GST. Final deduction will include GST values.

6.5 Termination:

In case Bidder/Selected Partner fails to execute the terms and conditions of the contract, RailTel will have the right to terminate the contract with 15 days' notice and carry out the work through another contractor. In such circumstances all the security/BG will be forfeited by RailTel.

6.5 Delivery and Inspection:

6.5.1 Delivery, Installation and Commissioning Period: As per RailTel's Project Delivery Schedule.

6.5.2 All the material should be made available for Inspection by RailTel nominated person/agency if required.

6.5.3 Partner will be custodian of all the material till installation and commissioning of system.

6.6 Provisional Acceptance Certificate (PAC)

Upon completion of the project, and prior to the commencement of Operations & Maintenance (O&M), subject to acceptance by RailTel's end customer and certification by RailTel's representative.

6.7 Final Acceptance Certificate (FAC)

6 months after completion of the entire project including O&M, subject to acceptance by RailTel's end customer and certification by RailTel's representative.

6.8 Pre – Contract Integrity Pact: Deleted



Chapter – 7: Annexures and Forms

Annexure 1 - Format for COVERING LETTER

(to be submitted by sole partner/lead partner in case of consortium)

COVERING LETTER (To be on company letter head)

EoI Reference No:

To,
The Principal Executive Director,
RailTel Corporation of India Ltd. 6A, 6th Floor,
Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Dear Sir,

Sub: Participation in the EoI process

Having examined the Invitation for EoI document bearing the reference number released by your esteemed organization, we, undersigned, hereby acknowledge the receipt of the same and offer to participate in conformity with the said Invitation for EoI document.

If our application is accepted, we undertake to abide by all the terms and conditions mentioned in the said Invitation for EoI document.

We hereby declare that all the information and supporting documents furnished as a part of our response to the said Invitation for EoI document, are true to the best of our knowledge. We understand that in case any discrepancy is found in the information submitted by us, our EoI is liable to be rejected.

We hereby Submit EMD amount of Rs. issued vide reference from Bank.

Authorized Sign and Stamp

Name:

Designation:

Place:

Date:

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Annexure 2 - Format for Self-Certificate & Undertaking

Self-Certificate (To be on company letter head)

EOI Reference No:

To,
The Principal Executive Director,
RailTel Corporation of India Ltd. 6A, 6th Floor,
Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Dear Sir,

Sub: Self Certificate for Tender, Technical & other compliances

- 1) Having examined the Technical specifications mentioned in this EOI & end customer EOI, we hereby confirm that we meet all specification.
- 2) We_____agree to abide by all the technical, commercial & financial conditions of the end customer RFP for which EOI is submitted (except pricing, termination & risk purchase rights of the RailTel). We understand and agree that RailTel shall release the payment to selected sole partner/lead partner in case of consortium after the receipt of corresponding payment from end customer by RailTel. Further we understand that in case selected sole partner/lead partner in case of consortium fails to execute assigned portion of work, then the same shall be executed by RailTel through third party or departmentally at the risk and cost of selected sole partner/lead partner in case of consortium.
- 3) We agree to abide by all the technical, commercial & financial conditions of the end customer's RFP for the agreed scope of work for which this EOI is submitted.
- 4) We hereby agree to comply with all OEM technical & Financial documentation including MAF, Technical certificates/others as per end-to-end requirement mentioned in the end customer's RFP. We are hereby enclosing the arrangement of OEMs against each of the BOQ item quoted as mentioned end customer's RFP. We also undertake to submit MAF and other documents required in the end Customer organization EOI in favour of RailTel against the proposed products.
- 5) We hereby certify that any services, equipment and materials to be supplied are produced in eligible source country complying with OM/F. No. 6/18/2019 dated 23rd July 2020 issued by DoE, MoF.
- 6) We hereby undertake to work with RailTel as per end customer's RFP terms and conditions. We confirm to submit all the supporting documents constituting/ in compliance with the Criteria as required in the end customer's RFP terms and conditions like technical certificates, OEM compliance documents.
- 7) We understand and agree that RailTel is intending to select sole partner/ consortium who is willing to accept all terms & conditions of end customer organization's RFP for the agreed scope of work. RailTel will strategies to retain scope of work where RailTel has competence.
- 8) We hereby agree to submit that in case of being selected by RailTel as sole partner/ consortium for the proposed project(for which EOI is submitted), we will submit all the forms, appendix, relevant documents etc. to RailTel that is required and desired by end Customer well before the bid submission date by end customer and as and when required.
- 9) We hereby undertake to sign Pre Bid Agreement and Non-Disclosure Agreement with RailTel on a non-judicial stamp paper of Rs. 100/- in the prescribed Format.

- 10) We undertake that we will not submit directly or indirectly out bids and techno-commercial solution/association with any other organization once selected in this EOI for teaming arrangement (before and after submission of bid to end customer organization by RailTel)

Authorized Sign and Stamp

Name:

Designation:

Place:

Date:



Annexure 3 - Undertaking for not Being Blacklisted/Debarred

(On Company Letter Head)

EoI Reference No:

To,
The Principal Executive Director,
RailTel Corporation of India Ltd. 6A, 6th Floor,
Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Subject: Undertaking for not Being Blacklisted/Debarred

We, (Company Name), having its registered office at Address hereby declare that that the Company has not been blacklisted/debarred by any Governmental/ Non – Governmental organization in India for past 3 Years as on bid submission date.

Authorized Sign and Stamp

Name:

Designation:

Place:

Date:

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Annexure 3A - OEM has not been blacklisted (Not Applicable)

(To be submitted on the Letterhead of the responding agency)

EoI Reference No:

To,
The Principal Executive Director,
RailTel Corporation of India Ltd. 6A, 6th Floor,
Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Subject: Self Declaration of Original Equipment Manufacturer (OEM) not been blacklisted in response to the EoI.

Dear Sir/Madam,

We confirm that our company (OEM Name), is not blacklisted in any manner whatsoever by any of the State/UT and/or central government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice. It is further certified that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our security may be forfeited in full and the EOI if any to the extent accepted may be cancelled.

OEM's Authorized Sign and Stamp

Name:

Designation:

Place:

Date:

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Annexure 4 – Affidavit

AFFIDAVIT

*(TO BE UPLOADED BY SOLE PARTNER/ ALL CONSORTIUM PARTNERS ALONG WITH THE EOI DOCUMENTS) (To be executed in presence of public notary on non-judicial stamp paper of the value of Rs. 100/-. The paper must be in the name of the Partner) ***

I (Name and designation) ** appointed as the attorney/authorized signatory of the Partner (including its constituents), M/s (hereinafter called the Partner) for the purpose of the EOI documents for the work of as per the EOI No.: of (RailTel Corporation of India Ltd.), do hereby solemnly affirm and state on the behalf of the Partner including its constituents as under:

1. I/we the Partner (s), am/are signing this document after carefully reading the contents.
2. I/we the Partner (s) also accept all the conditions of the EOI and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the EOI documents from RailTel website www.railtel.enivida.com. I/we have verified the content of the document from the website and there is no addition, no deletion or no alternation to be content of the EOI document. In case of any discrepancy noticed at any stage i.e. evaluation of EOI, execution of work or final payment of the contract, the master copy available with the RailTel Administration shall be final and binding upon me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. I/we also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6. I/we declare that the information and documents submitted along with the EOI by me/us are correct and I/we are fully responsible for the correctness of the information and documents submitted by us.
7. I/we undersigned that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of EOI, it shall lead to forfeiture of the EOI EMD besides banning business for five years on entire RailTel. Further, I/we (insert name of the Partner) ** and all my/our constituents understand that my/our constituents understand that my/our offer shall be summarily rejected.
8. I/we also understand that if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/SD and Performance guarantee besides any other action provided in the contract including banning of business for five years on entire RailTel.

Deponent

Seal and signature of the partner

Verification

I/We named above named EOI do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

Deponent

Place:

Dated:

Seal and signature of the partner:

***The contents in Italics are only for guidance purpose. Details as appropriate are to be filled in suitably by Partner. Attestation before Magistrate/Notary Public.*

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Annexure 5 - Non - Disclosure Certificate

To,
The Principal Executive Director,
RailTel Corporation of India Ltd. 6A, 6th Floor,
Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Dear Sir,

Sub: EOI Reference No: Dtd.

A. This is in response to the Invitation for EOI for “Selection of Business Associate/Partner(s) from RailTel’s empaneled BAs for the requirement of customer of RailTel (CoR) “_____”

B. During the course of the above negotiations RailTel (including its affiliates) may in conjunction with the said purpose and for our mutual benefit, disclose to us certain information being proprietary and/or of a confidential nature and/or sensitive;

C. We and our affiliates wish to ensure the protection and secrecy of RailTel’s confidential information which may be disclosed, received or granted access to by RailTel and wish to reduce to writing, our confirmation in this respect.

With regard to the above said purpose, we hereby covenant, warrant and confirm as follows:

1.1 NON-DISCLOSURE &CONFIDENTIALITY

We agree and undertake to regard and preserve as Confidential Information provided by RailTel or which may be disclosed, received or granted access to by RailTel or come to the knowledge of us in any manner in connection with the negotiations for the possible business relationship.

(a) In maintaining the Confidential Information here under we agree that we shall not, without first obtaining the written consent of RailTel, disclose or make available to any person, firm or enterprise, reproduce or transmit, or use (directly or indirectly) for our own benefit or the benefit of others, any Confidential Information avian except that we may disclose any Confidential Information to its Directors, officers, employees, or advisors on a "need to know" basis to enable them to evaluate such "Confidential"

(b) We shall ensure that our employee(s) and/ or person(s) shall maintain confidentiality with regard to the disclosed Confidential Information, if any, and shall issue suitable instructions and/ or get suitable written undertakings or agreements executed to bind our employees and/or person(s) to the same obligations of confidence and safeguarding and to adhere to the confidentiality/ non-disclosure terms contained herein.

(c) Save and except for the purposes mentioned in clause (a) above we further agree that we will not part with/ disclose any "Confidential Information" received by us to any other person directly or indirectly nor make copy(ies) or reproduce in any way (including without limitation store in any computer or electronic system any written material/ documents containing "Confidential Information" and such written material/ documents will be retained under strict confidentiality by us.

(d) We further agree to exercise the same degree of care that we exercise to protect our own Confidential Information of a like nature from unauthorized disclosure, but in no event shall a less than reasonable degree of care will be exercised by us.

1.2 We acknowledge and agreed that information shall not be considered "Confidential Information" to the extent, that such information:

(a) At the time of disclosure was in the public domain; or

- (b) Is already known to us free of any confidentiality obligation at the time it is obtained from RailTel; or
- (c) After disclosure is or becomes publicly known or available through no wrongful act of ours; or
- (d) Is right fully received from a third party without restriction; or
- (e) Is approved for release, disclosure, dissemination or use by written authorization from RailTel; or
- (f) Is required to be disclosed pursuant to a requirement of a governmental agency or laws as long as we provide RailTel with timely prior written notice of such requirement and provide all reasonable co-operation in regard to taking protective action against such disclosure requirement; or
- (g) Is disclosed after expiry of 5(five) years from the date of signing of this certificate. However, before we disclose any Confidential Information under clause 6, we (to the extent permitted by law) shall use our best endeavor to inform RailTel of any circumstances and the information that will be disclosed.

1.3 We further agree and undertake not to disclose the information marked “Confidential Information” of RailTel to our agents or Bidders without prior written approval from RailTel and without having first to obtain from each agent or Bidder a separate written agreement or undertaking binding them to the same obligations of confidence and safeguarding.

1.4 We further agree that at the request of RailTel, we shall promptly (and in any case, within 15 days of request), deliver to the RailTel all copies of the Confidential Information in its possession or under its direct or indirect control or shall destroy all memoranda, notes and other writings prepared by us or our affiliates, Directors, officers, employees or advisors to the extent the same are based on the confidential information with a written statement to the effect that upon such return we have not knowingly retained in our possession or under our control, either directly or indirectly, any information or copies of such (other than Confidential Information embedded in our records).

1.5 The confidentiality obligations set out herein above shall survive any such return or destruction of Information.

1.6 Except as specifically provide adhere in, disclosure of confidential information by us pursuant thereto shall not be deemed to grant or s, any rights, interest or property in such confidential information and accordingly we agree that we will not directly or indirectly claim or submit any application for grant of any patent, copyright, design right or other intellectual property rights in, to on the basis of the confidential information.

1.7 We hereby acknowledge and agree that in the event of a breach or threatened breach by us of the provisions herein, RailTel may have no adequate remedy in money or damages and accordingly notwithstanding anything contained in clause 4 here of, RailTel shall be entitled to seek injunctive relief against such breach or threatened breach by us: provided, however, no specific action in this confidentiality certificate of a specific legal or equitable remedy shall be construed as a waiver or prohibition of any other legal or remedies in the event of a breach or threatened breach of this certificate and the remedies specified herein shall be in addition to all other reliefs and remedies available to RailTel under prevailing laws.

Signature with seal:

Name:

Designation:

Date:

Annexure 6 - EMD (as BG) Format

BG NO:

Issuance Date: dd/mm/yyyy

BG Amount: Rs.

Expiry Date: dd/mm/yyyy

Claim Expiry Date: dd/mm/yyyy

In consideration of the RailTel Corporation of India Limited, (CIN: L64202DL2000GOI107905) having its registered office at Plate-A, 6th Floor, Office Block Tower-2, East Kidwai Nagar, New Delhi - 110023 (Here in after called RailTel) having agreed to exempt Partner Name (CIN:) having its registered office at Partner's address (Here in after called "the said Contractor(s)") from the demand, under the terms and conditions of EOI NO. made between RailTel Corporation of India Limited and Partner Name for (here in after called "the said Agreement") of security deposit for the due fulfilment by the said contractor (s) of the terms and conditions contained in the said Agreement, or production of a Bank Guarantee for Rs. /- (In Words).

We, Bank Name a banking company incorporated under the Companies Act, 1956 and carrying on Banking Business under The Banking Regulation Act, 1949 and having its Registered Office at Bank's Address and its Central office at Bank's Corporate Office Address (indicate the name of the Bank) here in after referred to as "the Bank") at the request of Partner's Name Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs /- (In Words) 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 said Contractor(s) of any of the terms or conditions contained in the said Agreement.

We, Bank Name 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 as 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 terms and conditions contained in the said Agreement or by 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. /- (In Words).

We, Bank's Name, undertake to pay to the RailTel any money so demanded not to withstand any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal. The payment made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s)/ Supplier(s) shall have no claim against us for making such payment.

We, Bank's Name further agree that the Guarantee here in 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 discharge this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the DD-MM-

YYYY (Claim Expiry Date.) We shall be discharged from all liability under this Guarantee thereafter.

We, Bank's Name 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 or 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 effect of so relieving us.

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

Bank's Name lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

Date:

Place:



Annexure 7 – MAF

MANUFACTURERS' AUTHORIZATION FORM

(To be obtained and submitted by bidder for each OEM separately whose solution/systems/services are proposed in this EoI)

EOI No.:

Date:

To,
The Principal Executive Director,
RailTel Corporation of India Ltd. 6A, 6th Floor,
Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Dear Sir:

Ref: EoI No:

1. We, who are established and reputable manufacturers / producers of having factories/ development facilities at (address of factory / facility) do hereby authorize to submit a Bid and sign the contract with you against the above EoI.

2. We hereby extend our full warranty and support in accordance with the terms of the above EoI for the Products and services offered by the above ABP against the above RFP. Support (Warranty and AMC) shall be on-site and comprehensive in nature having back to back support from us. In case Service Provider/ABP fails to provide Warranty and AMC or out of service due to any reasons, then we shall either provide ourselves or make alternative arrangement for the Warranty/ Service/AMC of the Product(s) as required in accordance with the terms and conditions of the above EoI, at no extra cost and to the satisfaction of the Bank.

3. We also undertake to provide any or all of the following materials, notifications, and information pertaining to the Products supplied by the ABP:

(a) Products such as the Bank may opt to purchase from the ABP, provided, that this option shall not relieve the ABP of any warranty obligations under the EoI; and

(b) In the event of termination of production of such Products:

i. advance notification to the Bank of the pending termination, in sufficient time to permit the Bank to procure needed requirements; and

ii. following such termination, furnishing at no cost to the Bank, operations manuals, standards and specifications of the Products, if requested.

4. We duly authorise the said ABP to act on our behalf in fulfilling all installations, technical support and maintenance obligations required by the contract.

5. We hereby certify that we have read the clauses contained in O.M. No. 6/18/2019-PPD, dated 23.07.2020 order (Public Procurement No. 1), order (Public Procurement No. 2) dated 23.07.2020 and order (Public Procurement No. 3) dated 24.07.2020 regarding restrictions on procurement from a bidder of a country which shares a land border with India. We further certify that we are not from such a country or if from a country, has been registered with

competent authority. We certify that we fulfil all the requirements in this regard and our ABP is eligible to participate in the above EoI.

6. We have gone through the EoI and customer RFP and agree with all the terms and conditions.

Yours faithfully,

(Name of Manufacturer / Producer)

Note: This letter of authority should be on the letterhead of the manufacturer and should be signed by a person competent and having the power of attorney to bind the manufacturer. The Bidder in its Bid should include it.





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Annexure 9 - Self declaration against corrupt and fraudulent practice

(To be submitted on the letterhead of the Partner)

To,
The Principal Executive Director,
RailTel Corporation of India Ltd. 6A, 6th Floor,
Gumidelli Towers, Begumpet Airport Road,
Prakash Nagar Metro Station,
Begumpet, Hyderabad – 500016

Ref: EOI No.:

Sub: Self declaration of not being under Ineligibility for corrupt and fraudulent practice

Dear Sir/Madam, we have examined the EoI document, we, the undersigned, herewith submit our response to your EoI no.: dated for

I. We have read the provisions of the EoI document and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our EoI shall not be given effect to.

II. We agree to abide by this EoI, consisting of this letter, the detailed response to the EoI and all attachments, for a period of 180 days from the date of submission of the bid.

III. We would like to declare that we are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this assignment and we are not under a declaration of ineligibility for corrupt or fraudulent practices.

IV. We would like to declare that there is no conflict of interest in the services that we will be providing under the terms and conditions of this EoI.

V. We hereby declare that all the information and statements made in this proposal are true and accept that any misrepresentation contained in it may lead to our disqualification.

VI. We understand you are not bound to shortlist / accept any EoI you receive.

Sincerely,

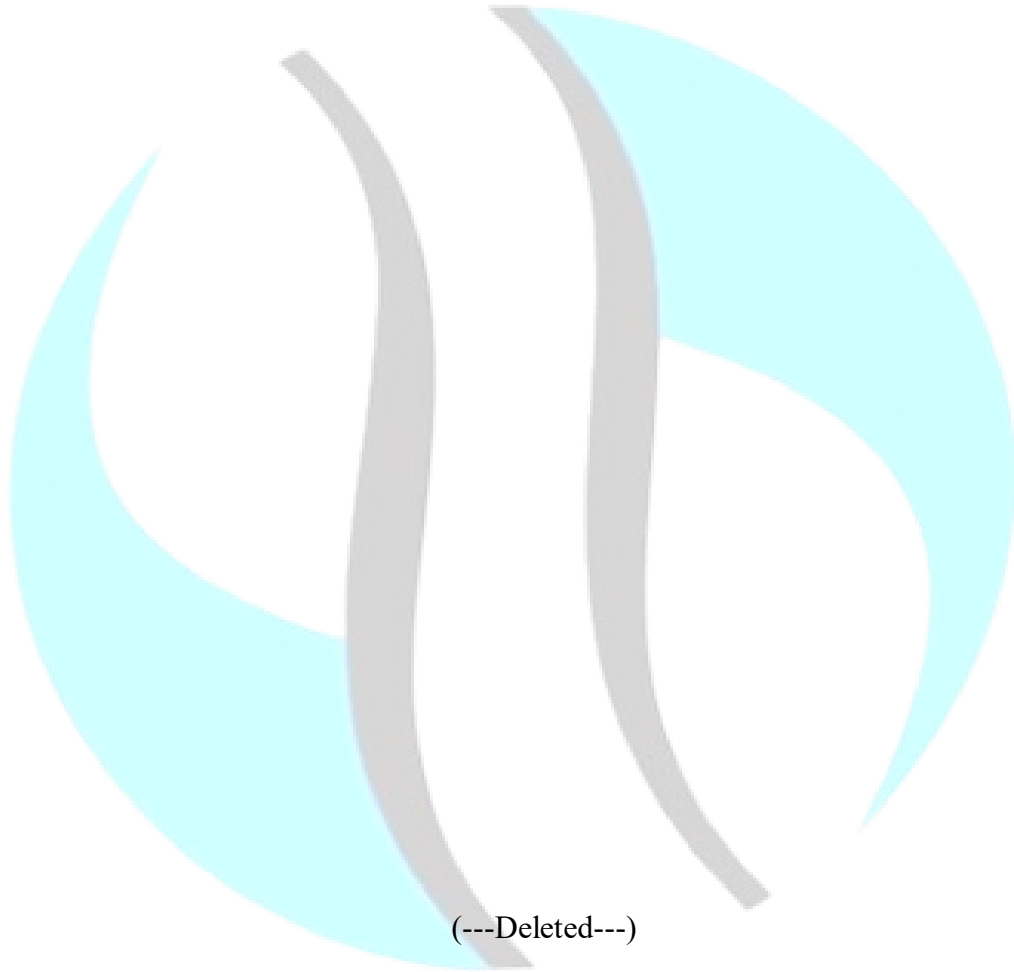
Signature of Authorized Signatory and Seal of the Partner Name:

Designation:

Date:

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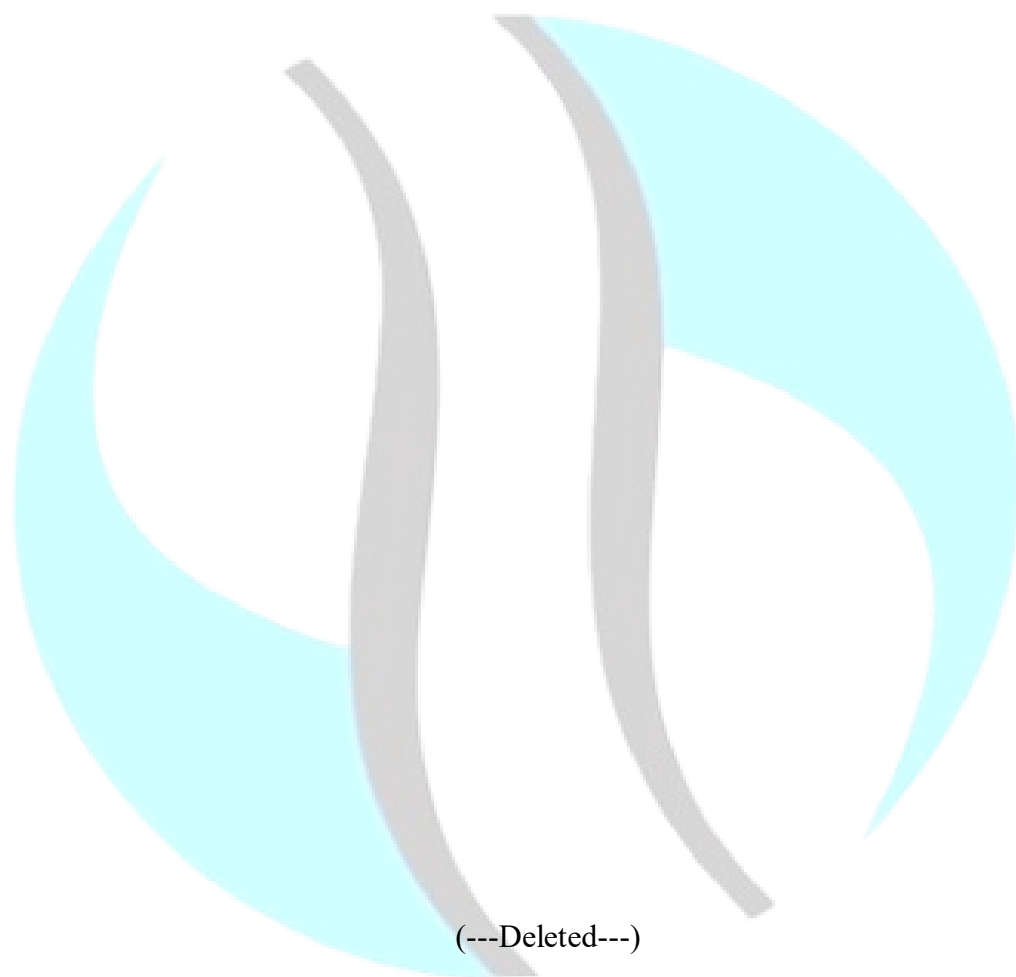
Annexure 10 - Proposed Manpower Details



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Annexure 13 - NIL Deviation Compliance Undertaking

(This letter should be on the letterhead of the bidder duly signed by an authorized signatory)

To,
The Principal Executive Director,
RailTel Corporation of India Ltd.,
1-10-39 to 44, 6A, 6th Floor, Begumpet Airport Road,
Opp. Shoppers Stop, BEGUMPET, HYDERABAD- 500 016

EoI Reference No.:

Sub: NIL Deviation Compliance

Over and above all our earlier confirmations and submissions as per your requirements of the EoI, we confirm that,

1. All proposed in scope are compliant to the technical specifications of the equipment as mentioned in the latest version of the specifications in the EoI.
2. We hereby certify that the hardware and software (if applicable) mentioned in our technical solution and Bill of Material (BOQ) are complete.
3. We confirm that there is no requirement of any other hardware and software to fulfil requirements as per scope against the EoI. If any additional hardware and software is required to meet in-scope requirements, then it would be procured by us at no extra cost to RailTel.
4. We will also ensure unconditional compliance of all the terms and conditions as mentioned in the EoI document including all corrigenda, addenda and specifications.
5. List of deviations (Partial Compliance and Non-compliance) from terms and conditions as mentioned in the EoI document including all corrigenda, addenda and specifications, if any, is enclosed as Annexure with this form. We understand that any partial compliance or non-compliance may result in REJECTION of our bid.

Seal and signature of the bidder

Place:

Date:

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Annexure 14 - Price Bid Format

(To be submitted in excel format price-bid in e-nivida portal)

EoI Ref No:

Name of the Bidder:

SN	Description of Product/Solutions	Qty	UoM	Unit Rate (Excl. GST)	GST %	Total GST Amount	Total Cost (Incl. GST)
DREDGING VESSEL VSAT HARDWARE							
1	VSAT Communication Equipment with all required accessories - Marine Grade	8	Nos				
1a	Installation and Commissioning Charges	8	Nos				
2	High Speed Networking at Vessel with Hybrid Connectivity [VSAT] with all required accessories	8	Nos				
2a	Installation and Commissioning Charges	8	Nos				
3	8-Port Switch with all required accessories - Marine Grade	8	Nos				
3a	Installation and Commissioning Charges	8	Nos				
DREDGING VESSEL CCTV HARDWARE							
4	Surveillance - 4MP IP Camera Bullet (IP67) with all required accessories - Marine Grade	56	Nos				
4a	Installation and Commissioning Charges	56	Nos				
5	Surveillance - 32X Zoom 4MP PTZ Camera with all required accessories - Marine Grade	8	Nos				
5a	Installation and Commissioning Charges	8	Nos				
6	Sensor Monitoring & Screen Monitoring - CCTV Camera for Engine [DLM, HYPAC, Sensors] (IP67) with all required accessories -Marine Grade	80	Nos				
6a	Installation and Commissioning Charges	80	Nos				
7	Weatherproof Casing with all required accessories - Marine Grade	136	Nos				
7a	Installation and Commissioning Charges	136	Nos				

SN	Description of Product/Solutions	Qty	UoM	Unit Rate (Excl. GST)	GST %	Total GST Amount	Total Cost (Incl. GST)
8	Video Surveillance System- 43 Inch LED screen along with Accessories (Marine Grade).	8	Nos				
8a	Installation and Commissioning Charges	8	Nos				
9	16CH NVR with all required accessories - Marine Grade or Higher	16	Nos				
9a	Installation and Commissioning Charges	16	Nos				
10	16 TB Surveillance HDD with all required accessories or higher	8	Nos				
10a	Installation and Commissioning Charges	8	Nos				
11	16-Port Switch with all required accessories - Marine Grade	16	Nos				
11a	Installation and Commissioning Charges	16	Nos				
12	Cabling and Other Hardware per Vessel with all required accessories	8	Nos				
12a	Installation and Commissioning Charges	8	Nos				
13	4U Network Rack with all required accessories	8	Nos				
13a	Installation and Commissioning Charges	8	Nos				
DREDGING VESSEL GPU SERVER							
14	Inference System & Feed Manager Server: CPU: Intel Xeon Silver 4416 (20 cores, 32 threads, 2.4 GHz) (RAM 64 GB), GPU: NVIDIA RTX 4500 ADA (24GB VRAM), HDD : 16 TB, (Or higher)	8	Nos				
14a	Installation and Commissioning Charges	8	Nos				
DREDGER SOFTWARE							
15	Computer Vision AI Platform (Perpetual)	1	Lot				
15a	Installation and Commissioning Charges	1	Lot				
16	SCADA - Log Server Integration	1	Lot				
16a	Installation and Commissioning Charges	1	Lot				
ICCC HARDWARE							

SN	Description of Product/Solutions	Qty	UoM	Unit Rate (Excl. GST)	GST %	Total GST Amount	Total Cost (Incl. GST)
17	Aluminium Cabinet Based Active LED - LED High Brightness Control System Screen Size 12m x 5m with all required accessories LED based Video wall of reputed make (Or higher specs)	1	Nos				
17a	Installation and Commissioning Charges	1	Nos				
18	Processor for Video Wall with all required accessories	1	Nos				
18a	Installation and Commissioning Charges	1	Nos				
19	Precision Workstation with 24" x 2 Monitors (Windows + MS Office) (As per given spec or higher with all required accessories) - Marine Grade	8	Nos				
19a	Installation and Commissioning Charges	8	Nos				
20	Workstation Furniture for CCC with 8 Chairs with all required accessories [Custom made 4 set for 2 Console each]	4	Nos				
20a	Installation and Commissioning Charges	4	Nos				
21	1000-24T-4G-L Network Switch, 24 Port GE, 4 1G SFP Uplink Ports with all required accessories (Or higher)	1	Nos				
21a	Installation and Commissioning Charges	1	Nos				
22	Fire Alarm System (Conventional), Biometric Access Control, Video Surveillance [4No of 4 MP Dome Camera & 8 channel NVR] with all required accessories	1	Nos				
22a	Installation and Commissioning Charges	1	Nos				
23	Networking, Cabling with Information Outlet and Lan/Electric Cabling with all required accessories	1	Lot				
23a	Installation and Commissioning Charges	1	Lot				
ICCC SOFTWARE							

SN	Description of Product/Solutions	Qty	UoM	Unit Rate (Excl. GST)	GST %	Total GST Amount	Total Cost (Incl. GST)
24	Computer Vision AI Platform (Perpetual)	1	Lot				
24a	Installation and Commissioning Charges	1	Lot				
25	ICCC & VMS Software	1	Lot				
25a	Installation and Commissioning Charges	1	Lot				
26	Business Intelligence Dashboard (Integrated with AI)	1	Lot				
26a	Installation and Commissioning Charges	1	Lot				
27	Asset Management (Of all installed Devices)	1	Lot				
27a	Installation and Commissioning Charges	1	Lot				
28	Security Infrastructure (Firewall, Data Encryption for all software installed, Anti-Virus and Role Based Access Control System)	1	Lot				
28a	Installation and Commissioning Charges	1	Lot				
DATA CENTER							
AI SYSTEM FOR SURVEILLANCE							
29	Application Server: CPU: Intel Xeon Silver 4316 (16 cores, 32 threads, 2.4 GHz) (RAM 32 GB), HDD: 1 TB, (Or Higher)	1	Nos				
29a	Installation and Commissioning Charges	1	Nos				
30	Inference System: CPU: Intel Xeon Silver 4416 (20 cores, 32 threads, 2.4 GHz) (RAM 64 GB), GPU: RTX 6000 Ada 48 GB, HDD: 1 TB, (Or Higher)	2	Nos				
30a	Installation and Commissioning Charges	2	Nos				
31	Feed Manager System: CPU: Intel Xeon Gold 5416S (16 cores, 32 threads, 2.4 GHz) (RAM 64 GB), HDD: 1 TB, (Or Higher)	2	Nos				
31a	Installation and Commissioning Charges	2	Nos				
32	Storage Area Network: Storage: 16 TB HDD	1	Nos				
32a	Installation and Commissioning Charges	1	Nos				

SN	Description of Product/Solutions	Qty	UoM	Unit Rate (Excl. GST)	GST %	Total GST Amount	Total Cost (Incl. GST)
STORAGE NETWORK							
33	Storage Box 2U12 - 48 TB HDD, IOM: 14.4 GB/s single I/O and 28.8 GB/s dual I/O, Host I/O Interface: Three x4 12 Gb/s mini-SAS HD connectors (SFF-8644) per I/O module, Management Interface: 2 × 1GbE, Expansion Support: Up to 10 enclosures (1 controller enclosure + 9 expansion enclosures), supporting up to 120 drives total (Or higher specs with all required accessories)	1	Nos				
33a	Installation and Commissioning Charges	1	Nos				
NETWORK RACK							
34	42 U Server Rack - Marine Grade: DIN 41494 or Equivalent EIA / ISO / EN / CEA Standard, Universal 44.45MM Pitch Holes For DIN Standard Racks, Compliance to DIN 41494 (General industrial standard for equipment), Cable Basket, Adapter Kit, Ganging Kit, Angle Pair, Fixed Shelf, Cantilever Shelf, Sliding Shelf, Key Board Shelf, PDU, Cable Organisers, Fans and Fan Modules, Rack Ground Kit, with all required accessories (Or Equivalent)	1	Nos				
34a	Installation and Commissioning Charges	1	Nos				
UPS							
35	10 KVA UPS: 10KVA / 9000 watts Three Phase In& Single phase Out UPS with 4Hrs Backup (or higher specs) Battery Bank of SMF 65 AH x 20 Nos, Battery Rack and Interlinks with all required accessories (preferably of EXIDE / UPLUS / ROCKET / RELICELL Or Equivalent)	2	Nos				
35a	Installation and Commissioning Charges of 35 a and 35b	2	Nos				

SN	Description of Product/Solutions	Qty	UoM	Unit Rate (Excl. GST)	GST %	Total GST Amount	Total Cost (Incl. GST)
CABLES & SWITCHES							
36	Data Cables and Wirings for AI Servers and Data Storage Network with all required accessories	1	Nos				
36a	Installation and Commissioning Charges	1	Nos				
37	Nvidia MQM8700-HS2F (Or Equivalent) 40-Port HDR 200G InfiniBand Data Center Switch, 40 QSFP56 Ports, Managed, x86 Dual Core, NVIDIA Quantum Chip, P2C Airflow, with all required accessories (Or higher)						
37a	Installation and Commissioning Charges	1	Nos				
OPERATION AND MAINTENANCE							
38	1st Year Operational Maintenance	1	Lot				
39	2nd Year Operational Maintenance	1	Lot				
Grand Total (Incl. GST)							

Below Item will not be considered for determining L1 Bidder							
SN	Description of Product/Solutions	Qty	UO M	Monthly Rate (Excl. GST)	GST %	Total GST Amount	Total Cost (Incl. GST)
VSAT Connectivity Subscription/Recurring Usage charges							
40	3 Mbps VSAT Connectivity Subscription/Recurring Usage charges per month	1	Link				

Annexure 15 - Escalation Matrix

To,
The Principal Executive Director,
RailTel Corporation of India Ltd.,
1-10-39 to 44, 6A, 6th Floor, Begumpet Airport Road,
Opp. Shoppers Stop, BEGUMPET, HYDERABAD- 500 016

EoI Reference No.:

Sub: Escalation Martix

Level	Name/ Designation	Responsibility	Expected Response Time	Mode of Contact
Level 1	Support Engineer / Helpdesk	Initial troubleshooting, logging, and first-level response	Within 1 hour	Phone, Email, Ticketing System
Level 2	Field Technical Lead	Escalation for unresolved issues, field coordination	Within 4 hours	Email, Mobile
Level 3	Regional / Project Manager	Issue prioritization, resource alignment, timeline control	Within 8 hours	Email, Phone
Level 4	Account / Delivery Head	Strategic resolution, compliance assurance, SLA deviation	Within 24 hours	Email, Official Letter (if required)

#Note: Name and Designation to be updated along with mode of contact.

Seal and signature of the bidder

Place:

Date:

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Annexure 16 - Make and Model

To,
The Principal Executive Director,
RailTel Corporation of India Ltd.,
1-10-39 to 44, 6A, 6th Floor, Begumpet Airport Road,
Opp. Shoppers Stop, BEGUMPET, HYDERABAD- 500 016

EoI Reference No.:

Sub: Make and Model

SN	Description of Product/Solutions	Make	Model
1	VSAT Communication Equipment with all required accessories - Marine Grade		
2	High Speed Networking at Vessel with Hybrid Connectivity [VSAT] with all required accessories		
3	8-Port Switch with all required accessories - Marine Grade		
4	Surveillance - 4MP IP Camera Bullet (IP67) with all required accessories - Marine Grade		
5	Surveillance - 32X Zoom 4MP PTZ Camera with all required accessories - Marine Grade		
6	Sensor Monitoring & Screen Monitoring - CCTV Camera for Engine [DLM, HYPAC, Sensors] (IP67) with all required accessories - Marine Grade		
7	Weather Proof Casing with all required accessories - Marine Grade		
8	Video Surveillance System- 43 Inch LED screen along with Accessories (Marine Grade).		
9	16CH NVR with all required accessories - Marine Grade or Higher		
10	16 TB Surveillance HDD with all required accessories or higher		
11	16-Port Switch with all required accessories - Marine Grade		
12	Cabling and Other Hardware per Vessel with all required accessories		
13	4U Network Rack with all required accessories		
14	Inference System & Feed Manager Server: CPU :Intel Xeon Silver 4416 (20 cores, 32 threads, 2.4 GHz) (RAM 64 GB), GPU :NVIDIA RTX 4500 ADA (24GB VRAM), HDD : 16 TB, (Or higher)		
15	Computer Vision AI Platform (Perpetual)		
16	SCADA - Log Server Integration		
17	Aluminium Cabinet Based Active LED - LED High Brightness Control System Screen Size 12m x 5m with all required accessories LED based Video wall of reputed make (Or higher specs)		
18	Processor for Video Wall with all required accessories		

19	Precision Work Station with 24" x 2 Monitors (Windows + MS Office) (As per given spec or higher with all required accessories) - Marine Grade		
20	Work Station Furniture for CCC with 8 Chairs with all required accessories [Custom made 4 set for 2 Console each]		
21	1000-24T-4G-L Network Switch, 24 Port GE, 4 1G SFP Uplink Ports with all required accessories (Or higher)		
22	Fire Alarm System (Conventional), Biometric Access Control, Video Surveillance [4No of 4 MP Dome Camera & 8 channel NVR] with all required accessories		
23	Networking, Cabling with Information Outlet and Lan/Electric Cabling with all required accessories		
24	Computer Vision AI Platform (Perpetual)		
25	ICCC & VMS Software		
26	Business Intelligence Dashboard (Integrated with AI)		
27	Asset Management (Of all installed Devices)		
28	Security Infrastructure (Firewall, Data Encryption for all software installed, Anti-Virus and Role Based Access Control System)		
29	Application Server: CPU: Intel Xeon Silver 4316 (16 cores, 32 threads, 2.4 GHz) (RAM 32 GB), HDD: 1 TB, (Or Higher)		
30	Inference System: CPU : Intel Xeon Silver 4416 (20 cores, 32 threads, 2.4 GHz) (RAM 64 GB), GPU : RTX 6000 Ada 48 GB, HDD : 1 TB, (Or Higher)		
31	Feed Manager System: CPU : Intel Xeon Gold 5416S (16 cores, 32 threads, 2.4 GHz) (RAM 64 GB), HDD : 1 TB, (Or Higher)		
32	Storage Area Network: Storage : 16 TB HDD		
33	Storage Box 2U12 - 48 TB HDD, IOM: 14.4 GB/s single I/O and 28.8 GB/s dual I/O, Host I/O Interface: Three x4 12 Gb/s mini-SAS HD connectors (SFF-8644) per I/O module, Management Interface: 2 × 1GbE, Expansion Support: Up to 10 enclosures (1 controller enclosure + 9 expansion enclosures), supporting up to 120 drives total (Or higher specs with all required accessories)		
34	42 U Server Rack - Marine Grade: DIN 41494 or Equivalent EIA / ISO / EN / CEA Standard, Universal 44.45MM Pitch Holes For DIN Standard Racks, Compliance to DIN 41494 (General industrial standard for equipment), Cable Basket, Adapter Kit, Ganging Kit, Angle Pair, Fixed Shelf, Cantilever Shelf, Sliding Shelf, Key Board Shelf, PDU, Cable Organisers, Fans and Fan Modules, Rack Ground Kit, with all required accessories (Or Equivalent)		
35	10 KVA UPS : 10KVA / 9000 watts Three Phase In& Single phase Out UPS with 4Hrs Backup (or higher spes) Battery Bank of SMF 65 AH x 20 Nos, Battery Rack and Interlinks with all required accessories (preferably of EXIDE / UPLUS / ROCKET / RELICELL Or Equivalent)		
36	Data Cables and Wirings for AI Servers and Data Storage Network with all required accessories		

37	Nvidia MQM8700-HS2F (Or Equivalent) 40-Port HDR 200G InfiniBand Data Center Switch, 40 QSFP56 Ports, Managed, x86 Dual Core, NVIDIA Quantum Chip, P2C Airflow, with all required accessories (Or higher)		
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Seal and signature of the bidder.

Place:

Date:



रेलटेल
RAILTEL
A Navratna CPSE
Govt of India

Annexure 17 – Technical Specification

1. VSAT Communication Equipment

SN	Parameters	Specifications
1	Max upload rate TCP	up to 5 Mbps IP-rate
2	Max upload rate UDP	up to 5 Mbps IP-rate
3	Max download rate TCP	up to 45 Mbps total IP-rate
4	Max download rate UDP	up to 40 Mbps total IP-rate (unicast or multicast)
Modem Interfaces		
RF Output (BUC Interface)		
5	Connector	F
6	Impedance	75 Ohm
7	Frequency	950 – 1750Mhz
8	Tx Level	-55 to +5dBm
9	BUC Power Supply	24VDC, 3.5A
10	Ref signal	10Mhz
Mechanical & Environment		
11	Operating temperature	0 to 50°C
12	Humidity	5% – 95% non-condensing
13	Storage Temperature	-10 to 60°C
Power Supply		
14	DC Power supply	24V
15	Mains adaptor input	mains AC, 50Hz210-260V and 60Hz100-130V
16	Mains Power consumption	<120 Watt (depends on BUC type)
17	Modem Power consumption	<20 Watt

3. 8 Port Switch

SN	Parameter	Specification
1	Ports	8 x 1000BaseT PoE+ Ports, 2 x 1G SFP Uplink Slots
2	Switch Type	Layer 2 Managed Industrial Grade
3	Backplane	Minimum 32Gbps or better
4	IPv6	Support
5	POE Standard	IEEE802.3af, IEEE802.3at
6	Power Budget	Minimum 240Watts or better
7	Management	Web, Telnet, SSH, SNMPv3, RMON, NTP
8	Network Security	Port based IEEE802.1X, MAC-based Authentication, VLAN, IP Source Guard, RADIUS, TACACS+, ACL, SSHv2, HTTPS
9	Multicast	IGMP v3 Snooping, MLD v2 Snooping
10	Network protocol and Standard	IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3ad, IEEE802.3ah, IEEE802.3ag, IEEE802.3az, IEEE802.3x, IEEE802.3z, IEEE802.17, IEEE802.1D, IEEE802.af/at, IEEE802.1ab, IEEE802.1q, IEEE802.1p, IEEE802.1s, IEEE802.1w, IEEE802.1x, IEEE802.1Qbb

11	Operating Temperature	0°C to +65°C
12	Operating Humidity	10% to 90% non-condensing

4. Surveillance - 4MP Fixed IP Bullet Camera

SN	Parameters	Specifications
1	Image Sensor	1/2.8" Progressive Scan CMOS
2	Effective Pixels	Minimum 4 MP or higher (2560 x 1440 pixels)
3	Day/Night Capability	True Day/Night with automatic IR-cut filter
4	IR Illumination Distance	≥20 meters or better
5	Minimum Illumination	Colour: 0.01 Lux, B/W: 0 Lux (IR on)
6	Video Compression	H.265 / H.264 / MJPEG
7	Ingress Protection	IP67 or better
8	Vandal Resistance	IK10 or better
9	Operating Temperature	0°C to +60°C

5. Surveillance - 32X Zoom 4MP IP PTZ Camera

SN	Parameters	Specifications
1	Image Sensor	1/2.8" Progressive Scan CMOS
2	Effective Pixels	Maximum 4 MP (2688 x 1520 pixels) 25FPS
3	Day/Night Mode	True Day/Night with IR-cut filter
4	Zoom	32x Optical, 16X Digital
5	IR Distance	≥100 meters
6	Minimum Illumination	Color: 0.005 Lux, B/W: 0 Lux (IR On)
7	Pan Range	0°-360° continuous
8	Compression	H.265 / H.264 / MJPEG
9	Ingress Protection	IP67 / NEMA 4X, IK10
10	Operating Temperature	0°C to +65°C
11	Humidity	0% to 95% RH, non-condensing

6. Sensor Monitoring & Screen Monitoring

SN	Parameters	Specifications
1	Image Sensor	1/1.8" Progressive Scan CMOS
2	Effective Pixels	Maximum 4 MP (2688 x 1520 pixels) 30FPS
3	Day/Night Mode	True Day/Night with IR-cut filter
4	IR Distance	IR 60 meters
5	Minimum Illumination	Color: 0.005 Lux, B/W: 0 Lux (IR On)
7	Compression	H.265 / H.264 / MJPEG
8	Ingress Protection	IP67 / NEMA 4X, IK10
9	Operating Temperature	0°C to +65°C
10	Humidity	0% to 95% RH, non-condensing

8. Video Surveillance System (LED Screen)

SN	Parameter	Specification
1	Screen Size	43 Inch
2	Display Size	43 Inch
3	Mounting Type	Wall Mount
4	H Scanning freq	30-81 kHz

9. 16CH NVR Unit

SN	Parameters	Specifications
1	Video Channels Supported	Minimum 16 IP channels (ONVIF compatible)
2	Recording Resolution	Up to 8MP (2560 x 1440) supported or better
3	Compression Format	H.265 / H.264 / MJPEG
4	Storage Capacity	Minimum 2 x 2TB SATA HDD or better
5	Video Outputs	HDMI (QHD supported), VGA
6	Network Interface	1 x Gigabit Ethernet
7	Operating Temperature	0°C to +55°C

10. 16 TB Surveillance HDD

SN	Parameter	Specification
1	Digital Storage Capacity	16 TB or Higher
2	Connectivity Technology	SATA
3	Brand	Seagate or equivalent
4	Hard Disk Form Factor	3.5 Inches
5	Read Speed	220 Megabytes Per Second

11. 16 Port Switch

SN	Parameter	Specification
1	Ports	16 x 1000BaseT Ports, 2 x 10G Uplink Slots
2	Switch Type	Layer 2 Marine Grade
3	Backplane	Minimum 64Gbps or better
4	IPv6	Support
5	Multicast	IGMP v3 Snooping, MLD v2 Snooping
6	Network protocol and Standard	IEEE802.3, IEEE802.3u, IEEE802.3ab, IEEE802.3ad, IEEE802.3ah, IEEE802.3ag, IEEE802.3az, IEEE802.3x, IEEE802.3z, IEEE802.17, IEEE802.1D, IEEE802.af/at, IEEE802.1ab, IEEE802.1q, IEEE802.1p, IEEE802.1s, IEEE802.1w, IEEE802.1x, IEEE802.1Qbb
7	Operating Temperature	0°C to +65°C
8	Operating Humidity	10% to 90% non-condensing

13. 4U Network Rack

SN	Parameter	Specification
1	Size	4 U
2	Product Type	Wall Mount
3	Usage	Networking, Audio Video, Telecom and Lab applications
4	Finishing Type	Fabricated out of CRCA steel, CNC programmed, punched, bended, welded and powder coated with highest
5	Color	Gray / Black

14. Interface and Feed Management Server

SN	Parameter	Specification
1	Processor	20 Core, 165W, 2.4 GHz
2	Memory	2 x 32 GB, 2Rx8 PC5-4800 16 Gb RDIMM
3	Storage	8 x 1.92 TB SSD
4	Drive Bay	2.5" SATA/SAS 8-Bay Backplane
5	RAID Controller	RAID 9350-8i with 2 GB Flash
6	Network Interface	OCP Card 57416, 2 x 10 Gb, 10GBASE-T
7	Power Supply	2 x 1100W 230V/115V Pt PSU Gen2 v3
8	GPU	NVIDIA RTX 4500 ADA (24 GB VRAM)

17. Aluminium Cabinet Based Active LED - LED High Brightness Control System |Screen Size 12m x 5m with all required accessories LED based Video wall of reputed make (Or higher specs).

SN	Parameters	Specifications
1	Pixel Pitch	3.9 mm
2	Density	65,535 pixel/m ²
3	Brightness	1000 nits
4	Viewing Angle	160° / 160°
5	Operating Temperature	-10 to +45 °C

18. Processor for Video Wall

SN	Parameter	Specification
1	I/O Points	6 Inputs and 16 Outputs
2	Output Type	Ethernet Port
3	Pulse Transmission Output	60 Hz
4	Communication Port	4 Types
5	Display Type	LCD/LED
6	Usage/Application	Industrial
7	Dimensions (W x H x D)	55 x 44 x 22 cm

19. Workstation with 24" x 2 Monitors (Windows + MS Office)

SN	Parameter	Specification
1	CPU	9th Generation Intel® Core™ i5 /Equivalent AMD or better Processor (3.4GHz, 4MB Cache) including Monitor or equivalent
2	Mother Board	Intel Original Mother Board or equivalent
3	Memory	16GB Dual Channel 1600 MHz DDR3 or more
4	Hard Drives	500GB (64MB Cache) 7200 RPM SATA 6Gb/s
5	Keyboards	Wireless/USB
6	Mouse	Wireless/USB
7	Video Card	2GB GDDR5 NVIDIA® GeForce® GTX 670 (DVI-I/DVI-D/HDMI/DP) or equivalent
8	Network Adapter (NIC)	Integrated 10/100/1000 Base -T
9	Sound Card	In- Built or external

10	Graphic Card	Super VGA non-interlaced graphics card capable of 1280 x 1024 – pixel resolution and 65K colours (or true colour) with 16MB video memory. Shall be suitable for true "HD" View
11	USB	2 nos. at front panel
12	Operating system	Microsoft Windows 11 or latest and MS Office 2021 or latest available.
13	Speaker (2.1)	02 Nos.
14	Hard Disc Memory	As above
15	Monitor Size	Minimum 24" or better

21. Network Switch, 24 Port GE, 4 1G SFP Uplink Ports

SN	Parameter	Specification
General Overview		
1	Ports	24 x Gigabit Ethernet (GE) Ports + 4 x 1G SFP Uplink Ports
2	Port Type	24 x 10/100/1000Base-T Ethernet (RJ-45) ports
3	SFP Uplink Ports	4 x 1G SFP (fiber) uplink ports
4	Switch Type	Managed L2/L3 Gigabit Ethernet Switch with VLAN and routing capabilities
5	Switching Capacity	≥ 48 Gbps (non-blocking, wire-speed performance)
Management and Security		
6	Management Interface	Web-based GUI, CLI, SNMP v1/v2/v3, SSH
7	Network Management	Supports SNMP v1/v2/v3, RMON, Web GUI, Telnet, SSH
8	Quality of Service (QoS)	Layer 2/Layer 3 QoS with traffic prioritization and rate limiting
Power Supply		
9	Input Power	100–240V AC, 50/60Hz, 1.5A
10	Power Supply	Internal
Environmental		
11	Operating Temperature	0°C to 40°C (32°F to 104°F)
12	Storage Temperature	-20°C to 70°C (-4°F to 158°F)
13	Humidity	5% to 95% non-condensing
Support		
14	Software Updates	Firmware and software updates included during the warranty period

25. ICCS Software (Integrated Command & Control Center Software)

SN	Parameter	Specification
General Overview		
1	Model	ICCS Software Suite
2	Purpose	Real-time monitoring, alarm management, data aggregation, and visualization of CCTV, data, and IoT devices
3	Deployment	On-premises, or Hybrid
4	Integration	Seamless integration with VMS, NVR, AI Engine (Low Code/No Code platform), and Network Equipment supplied under this EoI.

5	User Interface	Web-based GUI with customizable dashboards, multi-screen support, and mobile-friendly
6	Access Control	Role-based access control (RBAC), secure login with multi-factor authentication (MFA)
7	OS Compatibility	Windows Server 2019/2022/Linux (Ubuntu/CentOS)
8	Software Updates	Periodic updates for new features, patches, and security fixes
9	Training	On-site and/or remote training sessions for system operators and admins

25. Video Management System (VMS)

SN	Parameters	Specifications
1	Architecture	Centralized + distributed edge support
2	ONVIF Compliance	Profile S, G, T
3	Camera Compatibility	Support for 1000+ camera models (major OEMs)
4	Live & Playback Streams	Up to 16 live streams per operator; 4K decoding support
5	Recording Options	Continuous, scheduled, event-based
6	Alerts	Motion, tamper, storage loss, network loss
7	User Access Management	Role-based, multi-level,
8	Licensing	Per camera channel; floating/concurrent model

27. Assets Management

EMS Features

Automatic Asset Discovery

- Discover, identify, and categorize all pingable IT assets using agent and agentless methods.
- Track devices even when they go outside the network.
- Zero-touch agent installation
- One-click deployment of the agent from the ServiceOps main server.
- Agentless method of push, based on scan.
- Supported OS includes Windows, Linux, and Macintosh for workstations and laptops, iOS and Android for smartphones.

Asset Lifecycle Automation

- Acquire, configure, manage, and deploy IT endpoints to manage inventory intelligently.
- Keep track of asset's health, predict potential issues & optimize assets for optimum utilization.
- Create workflows to change the properties of assets based on conditions.

Hardware Inventory Management

- Quickly discover & search hardware assets and find configuration details.
- Maintain detailed logs to track hardware changes and movement of the asset.
- Maintain a list of preferred manufacturers, vendors and product catalog.
- View the Geolocation of Hardware assets on map.
- Assign asset to users based on their confirmation.

- Power options like Lock, Sleep, Shutdown, Restart, and Wakeup On LAN.

Software Asset Management

- Manage and optimize all software applications through purchase, deployment, utilization, and disposal.
- Track usage with software metering.
- Get notified for over usage of a software license.
- Consolidate software to avoid redundancy.

Non-IT Asset Management

- Manage and optimize all Non-IT assets through purchase, utilization, and disposal.
- Maintain detailed logs to track the changes and movement of the asset.
- Assign assets to users based on their confirmation.
- Maintain a list of preferred manufacturers, vendors, and product catalog.

Pre-defined and Customizable Reports

- Generate customizable, out-of-the-box reports to track asset inventory.
- Track key metrics like asset count by location, department, and vendor.
- Create live widgets showing KPIs and add them to the dashboard.

28. Security Infrastructure

Firewall:

SN	Component	Details
1	GE RJ45 Ports	16
2	GE RJ45 Management / HA	1/1
3	GE SFP Slots	8
4	10 GE SFP+ FortiLink Slots (default)	2
5	10 GE SFP+ Slots	2
6	USB Port	1
7	Console Port	1
8	IPS Throughput	5 Gbps
9	NGFW Throughput	3.5 Gbps
10	Threat Protection Throughput	3 Gbps
11	IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)	27 / 27 / 11 Gbps
12	Firewall Latency (64 byte, UDP)	4.78 μ s
13	Firewall Throughput (Packets per Second)	16.5 Mpps
14	Concurrent Sessions (TCP)	3 Million
15	New Sessions per Second (TCP)	2,80,000
16	Firewall Policies	10,000
17	IPsec VPN Throughput (512 byte)	13 Gbps
18	Gateway-to-Gateway IPsec VPN Tunnels	2,000
19	Client-to-Gateway IPsec VPN Tunnels	16,000
20	SSL-VPN Throughput	2 Gbps
21	Concurrent SSL-VPN Users (Max Recommended, Tunnel Mode)	500
22	SSL Inspection Throughput (IPS, avg. HTTPS)	4 Gbps
23	SSL Inspection CPS (IPS, avg. HTTPS)	3,500
24	SSL Inspection Concurrent Sessions (IPS, avg. HTTPS)	3,00,000
25	Application Control Throughput (HTTP 64K)	13 Gbps

SN	Component	Details
26	CAPWAP Throughput (HTTP 64K)	20 Gbps

RBAC:

- The system will have user defined Roles and Permissions.
- This will allow Admins and Super admins more access than the normal users.
- Admin and Super Admin can view audit logs and user activities.

29. Application Server

SN	Parameter	Specification
1	Processor	16 Cores, 150W, 2.4 GHz
2	Memory	1 x 32 GB DDR4
3	Storage	1 x 1.92 TB SSD
4	Drive Bay	2.5" SATA/SAS 8-Bay Backplane
5	RAID Controller	ThinkSystem RAID 5350-8i PCIe Adapter
6	Security / Expansion	Intrusion Switch, ThinkSystem G4 x16/x16 PCIe Riser 1
7	Network Interface	10GBASE-T 2-port OCP Ethernet Adapter
8	Power Supply	2 x 750W v2 Pt PSU

30. Inference System

SN	Parameter	Specification
1	Processor	20C, 165W, 2.4 GHz
2	Memory	2 x 32 GB, 2Rx8 PC5-4800 16 Gb RDIMM
3	Storage	1 TB SSD
4	Drive Bay	2.5" SATA/SAS 8-Bay Backplane
5	RAID Controller	RAID 9350-8i with 2 GB Flash
6	Management	XCC Platinum
7	Network Interface	OCP Card 57416, 2 x 10 Gb, 10GBASE-T
8	Power Supply	2 x 750W 230V/115V Pt PSU Gen2 v3
9	GPU	NVIDIA RTX 6000 Ada, 48 GB VRAM

31. Feed Manager System

SN	Parameter	Specification
1	Processor	16 Cores, 150W, 2.4 GHz
2	Memory	2 x 32 GB, 2Rx8 PC5-4800 16 Gb RDIMM
3	Storage	1 TB SSD
4	Drive Bay	2.5" SATA/SAS 8-Bay Backplane
5	RAID Controller	RAID 5350-8i
6	Network Interface	OCP Card 5719, 4 x 1 Gb, RJ45
7	Power Supply	2 x 750W 230V/115V Pt PSU Gen2 v3

32. Storage Area Network

SN	Parameter	Specification
1	Storage Capacity	Minimum 16 TB usable capacity, scalable as required
2	RAID Support	RAID 0/1/5/6/10 for data protection and performance
3	Connectivity	Dual redundant Fibre Channel / iSCSI interfaces (8/16/32 Gb FC or 10 GbE)

4	Management	Web-based centralized management interface with monitoring and alerts
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33. Storage Network

SN	Parameters	Specifications
1	Type	Rack-mounted (4-bay or higher)
2	Total Usable Storage	Minimum 48 TB (configured in RAID-5 or RAID-6)
3	RAID Support	RAID 0, 1, 5, 6, 10
4	Drive Support	3.5" SATA HDDs, hot-swappable
5	CPU	Quad-core ≥ 2.0 GHz or better
6	RAM	Minimum 8 GB DDR4 (expandable up to 32 GB)
7	Network Interfaces	Dual 1 GbE LAN ports
8	Protocols Supported	NFS, SMB, iSCSI, FTP, HTTP/HTTPS
9	Access Control	Role-based access
10	Surveillance Support	Integration with VMS; minimum 16 IP cameras support
11	Power Supply	100–240V AC, 50/60Hz
12	Operating Temperature	0°C to 40°C

34. 42U Rack

SN	Parameter	Specification
1	42U Rack	42U, 800W x 1000D, Front & Rear Single perforated door, Fan - 4 Nos, 10 Socket PDU 5 Amp -1 No, Full Tray - 3 Nos, Sliding Keyboard Tray - 1 No, Horizontal Cable Manager – 4 Nos, Mounting Hardware - 4 pkt

35. UPS – Power Backup

SN	Parameters	Specifications
General		
1	Number of internal batteries	0 or 1 x 32 blocks
2	External paralleling	Up to 4 units with HotSync technology
3	UPS topology	Double conversion
4	Efficiency in double-conversion mode	>96%
5	Efficiency in Energy Saver System (ESS) mode	Up to 99%
6	UPS Degree of protection	Minimum IP 20
7	Acoustic noise at 1 m, in 25 °C ambient temperature	< 54 dBA in double conversion < 47 dBA in ESS
Battery		
8	Battery technology	12 V, VRLA
9	Battery quantity: Internal External	32 blocks, 192 cells per battery string 28-40 blocks per string
10	Battery voltage: Internal External	384 V 336V – 480V
11	Nominal Ah capacity (C10)	9Ah
12	Charge current limit	Default 5A, configurable Maximum 12.5A
13	Battery start option	Yes

37. Data Center Switch

SN	Parameter	Specification
General Overview		
1	Port Type	40 x QSFP56 (40 x 200G ports)
2	Switch Type	Managed Data Center Switch with full Layer 2/3 capabilities
3	Switching Fabric	200G (200Gb/s aggregate per port)
4	Form Factor	1U Rackmount, Redundant Power Supply (RPS)
Ports and Connectivity		
5	Ports	40 x QSFP56 Ports, each capable of up to 200 Gbps bandwidth
6	Port Connectivity	Supports both QSFP and Ethernet
7	Auto-negotiation	Yes, automatically negotiates the highest bandwidth available per port
Power Supply		
8	Input Power	100-240V AC, 50/60 Hz, 2 x 1000W (Redundant)
9	Power Consumption	450W (typical)
Environmental		
10	Operating Temperature	0°C to 40°C (32°F to 104°F)
11	Storage Temperature	-20°C to 70°C (-4°F to 158°F)
12	Humidity	5% to 95% non-condensing
Support		
13	Software Support	Firmware and software updates included during the warranty period

Note: Bidder must provide compliance certificate against each item as mentioned above.

Note: The Bill of Materials is as per above estimate. Items may increase or decrease as per site requirement assessed by bidder. Any additional items for completion of the scope of work till Go - Live of the Project will be under the sole responsibility of the bidder.

Note: In case a bidder quotes a solution of higher specifications than sought specifications, bidder needs to ensure that all specifications / features / functionality/ relevant hardware must be delivered, installed & commissioned of higher specifications only.

*******END OF DOCUMENT*******