



Date: 09-10-2024

### Corrigendum - III

**Sub:** Tender for “Supply, Design, Installation, Testing, Commissioning, and Integration of OSS solution at Rail-Tel Network (IP-MPLS & DWDM)”.

**Ref:** (i) This office E-Tender No. RailTel/Tender/OT/CO/TP/2024-25/OSS/001, Dated 05-08-24

(ii) Corrigendum-I dated 06.09.2024

(iii) Corrigendum-III dated 27.09.2024

In reference to the Tender for the “Supply, Design, Installation, Testing, Commissioning, and Integration of OSS solution at RailTel Network (IP-MPLS & DWDM)” against **E-Tender No. RailTel/Tender/OT/CO/TP/2024-25/OSS/001**, Dated 05-08-24, following is issued with the approval of competent authority:

- 1: Corrigendum-III (Point 1-57)
- 2: Response to Pre-bid queries (Point 1-280)
- 3: Extension of Bid End Date/Time as mentioned below:

Present	Revised Tender closing/opening date and time
Bid End Date/Time 18-10-2024 15:00:00	Bid End Date/Time 28-10-2024 15:00:00
Bid Opening Date/Time 18-10-2024 15:30:00	Bid Opening Date/Time 28-10-2024 15:30:00

All other terms and conditions will remain unchanged.

(Himanshu Kumar)  
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(For and behalf of RailTel Corporation of India Ltd.)

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**Corrigendum-III E-Tender No. RailTel/Tender/OT/CO/TP/2023-24/OSS/001**

S.No.	Tender Clause No.	Original Clause	Modified clause
1	4.A.14.2-1	<p>OEMs of OSS solution/U-NMS: The offered solution by the OEM from the same OEM should have: A. OEM shall have installed and commissioned Operation Support System (OSS)/Umbrella NMS consisting of Core IP-MPLS (Device capacity: 400Gbps) and Core DWDM (Device capacity: 400Gbps) Network, which should have been in satisfactory operation for at least 12 months (during last 7 FY and current FY) as on date of opening of tender in In-dia or Abroad in Government/ PSUs/Telecom Service Providers (Tier-1/Class-A/NLD/ILD) /Public Listed Company. Following minimum 3 key functionalities should have been implemented as a single integrated in the network from same OEM: 1. Fault Management 2. Performance Management 3. Inventory &amp; Discovery 4. Provisioning, and Activation 5.Catalog driven service fulfillment. B. OEM shall have experience in deploying OSS/Umbrella NMS solution in the core network &amp; multivendor environment during last 7 FY and current FY with at least two (2) Telecom Service Providers (Tier-1/Class-A/NLD/ILD) in India or Abroad.</p>	<p>OEMs of OSS solution/U-NMS: The offered solution by the OEM from the same OEM should have: A. OEM shall have installed and commissioned Operation Support System (OSS)/Umbrella NMS consisting of Core IP-MPLS (Device capacity: Min 100Gbps &amp; Min No of Devices- 30) and Core DWDM (Device capacity: Min 100Gbps &amp; Min No of Channels/OADM- 30) Network, which should have been in satisfactory operation for at least 12 months (during last 7 FY and current FY) as on date of opening of tender in In-dia or Abroad in Government/ PSUs/Telecom Service Providers (Tier-1/Class-A/NLD/ILD) /Public Listed Company. Following minimum 3 key functionalities should have been implemented as a single integrated in the network from same OEM: 1. Fault Management 2. Performance Management 3. Inventory &amp; Discovery 4. Provisioning, and Activation 5.Catalog driven service fulfillment. B. OEM shall have experience in deploying OSS/Umbrella NMS solution in the core network &amp; multivendor environment during last 7 FY and current FY with at least two (2) Telecom Service Providers (Tier-1/Class-A/NLD/ILD) in India or Abroad.</p>
2	4.B.12.7.2	<p>If the number of tenderers qualified are 3 to 6, only 3 tenderers shall be eligible for participating in RA.</p>	<p><b>Bid to RA with H-1 elimination rule:</b> Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will be allowed to participate in RA in following cases: (a) If number of technically qualified bidders are only 2 or 3. (b) If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N. (c) In case Primary product (i.e. OSS) of only one OEM is left in contention for participation in RA on elimination of H-1. (d) If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1. (e) If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1 After the RA process, the award of contract(s) shall be made by the buyer keeping in view the Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 and Public Procurement (Preference to Make-in-India) Order, 2017 as amended from time to time" <b>Note: Splitting is not applicable for this tender.</b></p>
3	4.B.12.7.3	<p>If the number of tenderers qualified are more than 6, only 50% of tenderers shall be eligible for RA (rounded off to next higher integer).</p>	<p>Deleted</p>
4	4.B.13 Award of Contracts	<p>Financial Evaluation Reverse Auction (e-RA): After the evaluation of technical proposals, the financial bids (initial price offer) of those firms whose technical bids meet eligibility criteria shall be categorized as qualified for the purpose of Reverse Auction (e-RA). These financial bids shall be opened on the scheduled date and time (as per procedure explained in the e-portal User Manual for vendors – Two Stage Reverse Auction Goods &amp; Services Module). The e-RA procedure has been implemented through e-Portal and as per guidelines issued by Ministry of Railways Letter No. 2017/Trans/01/Policy/Pt-S Dated 28.03.2018. As per the procedure a minimum of three bids are mandatory for conduct of e-RA. In case the numbers of qualified bids are less than three, the L-1 would be decided on the initial price offer quoted by the bidder by e-portal. In case of more than three qualified bidders, the e-RA as explained in the manual mentioned above will be implemented. After the end of e-RA, L-1, L-2 and so on stand identified. <b>Note:</b> After completion of eRA, rates of L-1 bidder shall be reduced proportionately among all SOR items based on reduction achieved during eRA.</p>	<p>Financial Evaluation Reverse Auction (e-RA): After the evaluation of technical proposals, the financial bids (initial price offer) of those firms whose technical bids meet eligibility criteria shall be categorized as qualified for the purpose of Reverse Auction (e-RA). These financial bids shall be opened on the scheduled date and time (as per procedure explained in the e-portal User Manual for vendors – Two Stage Reverse Auction Goods &amp; Services Module). The e-RA procedure has been explained under clause no. 4.B.12 above. After the end of e-RA, L-1, L-2 and so on stand identified. <b>Note:</b> After completion of eRA, rates of L-1 bidder shall be reduced proportionately among all SOR items based on reduction achieved during eRA.</p>

S.No.	Tender Clause No.	Original Clause	Modified clause
5	4.A.45.5	<p>If after opening of price bid, lowest bid is of Class-II local supplier/bidder the eligible (techno-commercially qualified) Class-I local supplier(s)/bidder(s) shall be granted a purchase preference of 20% i.e., where their evaluated price bid is within 20% of the evaluated lowest price bid of Class-II local supplier/bidder. Such eligible Class-I local bidders, to whom purchase preference of 20% has been granted, will be allowed to participate in eRA irrespective of the selection criteria for eRA mentioned in Clause no. 4.B.9.1.6.</p> <p>However, if after opening of price bid, lowest bid is of Class-I Bidder then bidders for eRA will be selected as selection criteria mentioned in Clause no. 4.B.9.1.6. After completion of eRA process, RailTel's reserve the right to negotiate price with the eli-gible lowest bidder.</p>	<p>If after opening of price bid, lowest bid is of Class-II local supplier/bidder the eligible (techno-commercially qualified) Class-I local supplier(s)/bidder(s) shall be granted a purchase preference of 20% i.e., where their evaluated price bid is within 20% of the evaluated lowest price bid of Class-II local supplier/bidder. Such eligible Class-I local bidders, to whom purchase preference of 20% has been granted, will be allowed to participate in eRA irrespective of the selection criteria for eRA mentioned in Clause no. 4.B.12.</p> <p>However, if after opening of price bid, lowest bid is of Class-I Bidder then bidders for eRA will be selected as selection criteria mentioned in Clause no. 4.B.12. After completion of eRA process, RailTel's reserve the right to negotiate price with the eligible lowest bidder.</p>
6	4.A.45.6	<p>After completion of e-RA process as detailed in Clause 4.B.9.1.12, if L1 is a Class-I bidder then the contract will be awarded to L1. If L1 is a Class-II bidder then only those Class-I bidders, whose bids after completion of e-RA are within 20% of the Class-II L1's bid, would be allowed an opportunity to match L1's bid as detailed in Para 3A(c) of DPIIT's PMI Policy dated 16-09-2021. All the such eligible Class-I bidders shall be asked to submit their confirmation to match their price in sealed envelopes as per PMI Policy. Envelopes of the bidders shall be opened and award for the complete tender shall be made to the lowest evaluated TA/CA (Techno-Commercial Acceptable) bidder among the eligible Class-I bidders. In case the lowest eligible Class-I bidder fails to match L1 price, the offer of next eligible Class-I bidder in sealed envelope will be checked and so on. In case none of the eligible Class-I bidders matches the Class-II bidder's L1 bid, complete contract will be awarded to the Class-II bidder holding L1 price.</p>	<p>After completion of e-RA process as detailed in Clause 4.B.12, if L1 is a Class-I local Supplier the contract will be awarded to L1. As per Para 3A(c) of DPIIT's PMI Policy dated 16-09-2020, If L1 is not Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.</p> <p>In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.</p>
7	4.A.14.1 - point (J)- Technical Capability-2	<p>Bidder has successfully commis-sioned/managed and working satis-factorily of OSS/SDN-Controller/U-NMS/NMS/EMS/VMS/Network monitoring System for IP/MPLS/GPON (OLT/ONT)/End points/DWDM/Switch Network with 2700 Nodes (during last 07 (seven) years, ending last day of month pre-vious to the one in which tender is in-vited) in any Government. depart-ment or Public Sector Units or re-puted Telecommunications company (TELCO) or any company (having average annual turnover of Rs 500 Cr and above in last 3 financial years ex-cluding the current financial year).</p> <p>Note: For average annual turnover of Rs 500 Cr and above in last 3 financial years bidder have to submit the CA certificate having UDIN.</p>	<p>Bidder has successfully commis-sioned/managed and working satis-factorily of OSS/SDN-Controller/U-NMS/NMS/EMS/VMS/Network monitoring System for IP/MPLS/GPON (OLT/ONT)/End points/DWDM/Switch Network with minimum 2000 Nodes (during last 07 (seven) years, ending last day of month pre-vious to the one in which tender is in-vited) in any Government. depart-ment or Public Sector Units or re-puted Telecommunications company (TELCO) or any company (having average annual turnover of Rs 500 Cr and above in last 3 financial years ex-cluding the current financial year).</p> <p>Note: For average annual turnover of Rs 500 Cr and above in last 3 financial years bidder have to submit the CA certificate having UDIN.</p>
8	4.A.14.2- Note-(iii)	New para added in the note	<p>If offered OSS has the capability for SDN- Controller/EMS of IP MPLS, in that case the eligibility criteria mentioned under clasue 4.A.14.2-2 shall not be applicable. Undertaking from the OEM that OSS has the capability for SDN- Controller/EMS of IP MPLS shall be submitted.</p>
9	8.2.7.3 Backup Solution-Point-8	<p>Proposed purpose-built backup appliance or backup solution should support industry leading backup software like Networker, NetBackup, Commvault, NetVault and Data Protector, etc. and should support deduplication at backup server/ host / application level so that only changed blocks travel through network to backup device.</p>	<p>Proposed purpose-built backup appliance or backup solution should support any industry leading backup software like Networker, NetBackup, Commvault, NetVault and Data Protector, etc. and should support deduplication at backup server/ host / application level so that only changed blocks travel through network to backup device.</p>

S.No.	Tender Clause No.	Original Clause	Modified clause
10	8.2.7.3 Backup Solution-Point-1	The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose-built backup appliance should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup and VTL backup simultaneously via NFS, CIFS, FC, OST/Catalyst/NDMP protocols. All the protocols should be available to use concurrently with global deduplication for data ingested across all of them.....The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose-built backup appliance or disk base solution should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup or backup to VTL via NFS, CIFS, FC, OST/Catalyst/NDMP protocols.All the protocols should be available to use concurrently.	The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose built backup appliance or disk base solution should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup or backup to VTL via NFS, CIFS, FC, OST/Catalyst/NDMP protocols.All the protocols should be available to use concurrently.
11	Form-6 chapter-6 Point-4	We will also ensure our unconditional compliance of all the terms and conditions as mentioned in the Tender document including all corrigenda and TEC specifications.	We will also ensure our unconditional compliance of all the terms and conditions as mentioned in the Tender document including all corrigenda.
12	Form-6 chapter-6 Point-5	List of deviations (Partial Compliance and Non-compliance) from terms and conditions as mentioned in the Tender document including all corrigenda and TEC 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.	List of deviations (Partial Compliance and Non-compliance) from terms and conditions as mentioned in the Tender document including all corrigenda 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.
13	FORM NO. 7 – OEM'S UNDERTAKING ON LETTER HEAD - Point-4.6	I/We have offered Hardware and Software having End of Life (EOL) more than 8 years and End of Sale (EOS) more than 4 years from the date of opening of this Tender.	I/We have offered Hardware and Software having End of Life (EOL) more than 8 years and End of Sale (EOS) more than 4 years for the software from the date of opening of this Tender.
14	8.1.8	OEMs should support Firmware up gradation till the OEM announces End of Life (EoL). Hardware and Software offered by OEM should have End of Life (EOL) less than 8 years from the date of Supply. End of Sale (EOS) of offered Hardware and Software should not be less than 4 years from the date of Supply.	OEMs should support Firmware up gradation till the OEM announces End of Life (EoL). Hardware and Software offered by OEM should have End of Life (EOL) less than 8 years from the date of Supply. End of Sale (EOS) of offered Software should not be less than 4 years from the date of Supply.
15	8.2.7.1 Server: Point-4 (Memory slots)	Up to 32 x DDR4 RDIMMs/LRDIMMs	Min 24 x DDR4 RDIMMs/LRDIMMs or higher
16	8.2.7.3 Backup Solution (point-14)	The proposed solution should support completing backup of 50 TB within a backup window of 8 hours. The backup solution must support client-direct backup feature for file system, applications and databases to reduce extra hop for backup data at backup/media server to cater stringent backup window.	The proposed solution should support completing backup of 30 TB within a backup window of 8 hours. The backup solution must support client-direct backup feature for file system, applications and databases to reduce extra hop for backup data at backup/media server to cater stringent backup window.
17	8.2.3.1 Modelling Capabilities	The Solution MUST cover, though not be limited to, the following technologies: MEF, Ethernet, xDSL, IPv4, IPv6, MPLS, VPN, PDH, WDM, POM.	The Solution MUST cover, though not be limited to, the following technologies: MEF, Ethernet, xDSL, IPv4, IPv6, MPLS, VPN, PDH, WDM, PON.
18	3.A.1.3.6 Database		Deleted
19	3.B.2. System Integration Testing	Functional and performance test should be conducted for the complete system/ all major equipment constituting the system (including the equipment supplied by sub-vendors, as applicable) simulating the complete network with appropriate network elements. All the functions of software shall be demonstrated in totality (as per requirements/specifications of this document including management of MPLS equipment in respective sections). All equipment shall be connected using the same cables (interfaces/components) as will be used during final installation so that the system can be tested in its final configuration. This testing shall be conducted at the manufacturing facility of the main equipment.	Functional and performance test should be conducted for the complete system/ all major equipment constituting the OSS system (including the Hardware & software supplied by sub-vendors, as applicable) simulating the complete System. All the functions of OSS shall be demonstrated in totality as per requirements/specifications of this document including management of offered equipment so that the system can be tested in its final configuration. This testing shall be conducted at the manufacturing facility of the main equipment.
20	8.2.1.1 Service Order Management (point no. 68)	The SOM MUST be capable to handle: a) 2500 requests per day as Mean Day Value b) 1000 requests per day as Standard Deviation c) 4000 requests per hour in a Standard Busy Day d) 1500 requests per hour as Standard deviation among Busy Days"	Deleted

S.No.	Tender Clause No.	Original Clause	Modified clause
21	8.2.2.1 Performance Management (point no. 29)	The umbrella Performance Management system must be able to generate and forward alarms via SNMP northbound interface.	The umbrella Performance Management system must be able to generate and forward alarms via SNMP/northbound interface.
22	8.2.5.2 Fiber Inventory Management System (GIS Tool)- Para-C.dd	The solution will support Auto Planning for point-to-point backbone fiber in Greenfield and Brownfield, including civil and network infrastructure, and generate BOM/BOQ with optimized routes.	The solution will support Planning for point-to-point backbone fiber in Greenfield and Brownfield, including civil and network infrastructure, and generate BOM/BOQ with optimized routes.
23	8.2.2.3- Service and Inventory Point-8	The solution should store the stitched inter-domain multi-vendor end to end service topologies in a single graph-based inventory database (neo4j).	The solution should store the stitched inter-domain multi-vendor end to end service topologies in a single graph-based inventory database (neo4j or equivalent).
24	8.2.2.3- Service and Inventory (point no. 15)	The solution shall be extendable to support network slice discovery and associate topology.	The solution shall be extendable to support network-slice/virtual- network discovery and associate topology.
25	8.2.3.1 Modelling Capabilities (point no. 14)	The Solution should support the internal connectivity of containers or an equivalent alternative.	Deleted
26	8.2.3.3 Discovery & Reconciliation	The solution shall be extendable to support network slice discovery and associate to-pology.	The solution shall be extendable to support network-slice/virtual- network discovery and associate topology.
27	8.2.2.2 Fault Management - point 20	New Point added	The solution should have auto -Correlation capabilities such as time based , count based, topology based, Parent Child, link based and BGP pair based. These use cases should be implemented in the RailTel set up from the Day 1.
28	8.2.2.2 Fault Management - point 21	New Point added	The solution should have a capabilty for AI/ML based anomoly detections for fault management (alarms/events) & the performance management (KPIs). The correlation in between fault managemnet & Performance management should also be supported.Road map for the same is also acceptable however same should be implemented before PAC. As per RailTel requirement, 05 Nos. of use cases should be implemented in the RailTel set up from the Day 1.
29	8.2.2.2 Fault Management - point 22	New Point added	The solution should have a capability to provide the complete list of affected nodes for a given alram or performance degrdation on the UI for easy troubleshooting. These use cases should be implemented in the RailTel set up from the Day 1
30	8.2.2.2 Fault Management - point 23	New Point added	The solution shall provide abilities of event handling and alarm creation (e.g. setup of triggers, add delay time etc).It should be possible to add link and KPI information in the event/alarm created. These use cases should be implemented in the RailTel set up from the Day 1
31	8.2.2.2 Fault Management - point 24	New Point added	FM solution should supports correlations between KPIs & alarms (IP-MPLS & DWDM). These use cases should be implemented in the RailTel set up from the Day 1
32	8.2.2 Service Assurance- point 39	New Point added	The solution should have a capability to exclude the network elements under plant maintenance window by calculating the performance management KPIs or while creating a autocorrelations /supression logic. These use cases should be implemented in the RailTel set up from the Day 1
33	8.2.2.1 Performance Management- point 69	New Point added	Starting from a performance alarm, it shall be possible to drill down from the alarm to the related report and to the raw data involved in the KPI which has contributed to trigger this alarm. These use cases should be implemented in the RailTel set up from the Day 1
34	8.2.2.1 Performance Management- point 70	New Point added	PM solution shall be able to trigger alarms in case of deviation.  Trend deviation description: Metric should remain within X% of the behaviour of the last Y weeks. Low traffic periods may need special consideration. E.g. Data volume should be within 10% of average for the same time period and same day of the week, over the last 5 weeks, if not event should be triggered. These use cases should be implemented in the RailTel set up from the Day 1
35	8.2.2.1 Performance Management- point 71	New Point added	PM solution shall be able to detect any anomalies and trigger alarms based on that.  Flat lining description: Typical traffic related metrics vary constantly during the day. If such metrics remain constant for a period X this can indicate a capacity problem. E.g. Metric remains with a 10% range for a period of 4 hours, event should be triggered. These use cases should be implemented in the RailTel set up from the Day 1

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36	8.2.2.1 Performance Management- point 72	New Point added	The solution should provide the abilities to create trend reports, it should be possible to setup threshold triggers in order to create events and alarms, which will be sent to FM and ticket system. These use cases should be implemented in the RailTel set up from the Day 1
37	8.2.2.1 Performance Management- point 73	New Point added	The solution shall be able to determine the time correlation between two or more entities (KPIs or counters) as defined by the users. The solution shall correlate the KPI variations to the network parameters changes. These use cases should be implemented in the RailTel set up from the Day 1
38	8.2.2.1 Performance Management- point 74	New Point added	Solution shall provide a workbench to configure end to end closed loop automation workflows starting from monitoring->analysis->decision->action including pre-post KPI results as a feedback. These use cases should be implemented in the RailTel set up from the Day 1
39	8.2.1.5 Software Development Kit (SDK)/API. (Point-6)	New Point added	<p>The solution shall provide Northbound Interfaces (NBI) to export performance/inventory data to external system (supporting Web Services/FTP OR other interface protocols, DB views);</p> <p>The OSS system shall provide an API/SDK layer allowing data export to Analytics tool or Datalake and should support/comply Open API/SDK standard or equivalent as follows:</p> <ol style="list-style-type: none"> <li>1.TMF623 Service Level Agreement Management</li> <li>2.TMF628 Performance Management</li> <li>3.TMF649 Performance Thresholding</li> <li>4.TMF657 Service Quality Management</li> <li>5.TMF642 Alarm</li> </ol>
40	8.2.7.1 Server- Poin:2 Supported CPU	Up to two 3rd Generation Intel®Xeon® / AMD EPYC Scal-able processors with up to 40 cores per processor.	Up to two latest Generation Intel®Xeon® / AMD EPYC Scal-able processors with upto 40 cores per processor.
41	8.2.7.1 Server- Poin:3 Configured CPU	2*32 cores @ 2 GHz, 48 MB Cache(Gold 6338 / AMD EPYC 7513) or better	2*32 cores or Latest, 48 MB Cache or better
42	8.2.4.1 SDN Controller/EMS- Point : D 2	<p>The Interfaces supported by offered solution shall be (at-least, may not be limited to) -</p> <ol style="list-style-type: none"> <li>i) FM – Kafka or SNMP v3</li> <li>ii) PM – RestAPI or sFTP</li> <li>iii) Inventory – RestAPI</li> <li>iv) Discovery – Rest API</li> <li>v) Service provisioning – Rest API</li> </ol>	<p>The Interfaces supported by offered solution shall be (at-least, may not be limited to) -</p> <ol style="list-style-type: none"> <li>i) FM – Kafka or SNMP v3, gRPC, Websocket</li> <li>ii) PM – RestAPI or Kafka or gRPC, Websocket</li> <li>iii) Inventory – RESTCONF/REST based APIs with TAPI data model</li> <li>iv) Discovery – RESTCONF/REST based APIs with TAPI data model</li> <li>v) Service provisioning – RESTCONF/REST based APIs</li> </ol>
43	8.2.4.1 SDN Controller/EMS- point : D 1	<p>Bidder/OEM can propose a Mediation layer or SDN Controller for the integration of DWDM EMS/NMS with the proposed OSS system.</p> <p>Offered system should support following DWDM OEMs for fault, performance, and service management from day#1:</p> <ol style="list-style-type: none"> <li>i. Adva</li> <li>ii. Tejas</li> <li>iii. Ciena</li> <li>iv. Nokia</li> </ol>	<p>Bidder/OEM can propose a Mediation layer or SDN Controller for the integration of DWDM EMS/NMS with the proposed OSS system.</p> <p>Offered system should support following DWDM OEMs for fault, performance, and Inventory management from day#1:</p> <ol style="list-style-type: none"> <li>i. Adva</li> <li>ii. Tejas</li> <li>iii. Ciena</li> <li>iv. Nokia</li> </ol>

S.No.	Tender Clause No.	Original Clause	Modified clause
44	8.2.4.1 SDN Controller/EMS- point : A	SDN-Controllers/EMS (IP-MPLS) & Device management should work independently for fault & performance without any involvement of OSS Layer of modules/software applications to manage the multivendor devices.	SDN-Controllers/EMS (IP-MPLS) & Device management should have a separate module/system for fault & performance management without any involvement of Core OSS Layer modules/software applications.
45	3.A.1.4 OSS Solution Implementation Phases - fulfillment	Brown field discovery for Customer provisioned and Reconciliation with proposed provisioning solution,	Deleted
46	Backup Software licensing- point 5	Bidder must provide 50 TB front end capacity or 40 socket base license as per Tender ask. All OS's, DB's, Application agent/module must be included in backup software licenses.	Bidder must provide 30 TB front end capacity or 40 socket base license as per Tender ask. All OS's, DB's, Application agent/module must be included in backup software licenses.
47	8.2.5.2 Fiber Inventory Management System (GIS Tool)- point A (ix)	Minimum 20 Nos of User Licences to Provided.	The number of concurrent users/License for GIS shall be 20 and same shall be used to access desktop, web, and mobile application of GIS tool. OEM/bidder can offer 50Nos. of total users/license in place of 20Nos. Of concurrent users/License.
48	8.2.5.2 Fiber Inventory Management System (GIS Tool)- point A (iii)	Support open-source databases like PostgreSQL.	Support open-source databases like PostgreSQL or equivalent.
49	8.2.5.2 Fiber Inventory Management System (GIS Tool)- point B (iv-h)	The Application shall have Voice command features to enable placement of network entities from field.	Deleted
50	4.A.4 Phase-wise Delivery/Implementation timelines- Phase-3 (GIS Tool Implementation)	GIS Tool Implementation in Phase-3	GIS Tool Implementation in Phase-1
51	Information to Bidder for Compliance: FORMAT -I (Bill of material) SN-9	Server for the application in Production Environment, DR and Pre-production as per specifications.	Server for the application in Production/Pre-Production Environment as per specifications.
52	Information to Bidder for Compliance: FORMAT -I (Bill of material) SN-10	Storage for Main DC & DR as per specifications	Storage as per specifications
53	3.A.1.3.1 Integrated Solution- Point-1	All integration methodologies implemented in the solution must be a common and industry-wide standard (e.g. SOAP, CORBA for interfaces and CSV, XML for data structures etc). A proprietary interface protocol and data structure (e.g. Binary etc) is not acceptable unless a tool to convert them to a standard one is offered and validated.	All integration methodologies implemented in the solution must be a common and industry-wide standard (e.g. RESTCONF/REST interface and data structures etc). A proprietary interface protocol and data structure (e.g. Binary etc) is not acceptable unless a tool to convert them to a standard one is offered and validated.

S.No.	Tender Clause No.	Original Clause	Modified clause
54	Chapter-2-SOR , Ponit d under note	Bidder has to quote single make for OSS application as defined in the Tender (Technical requirement of Chapter-8). Against eligibility requirement (Point 3 of Clause 4.A.14), OEMs are allowed to meet their eligibility criteria through single or multiple Supply Or-ders/POs and Satisfactory working certificates in the name of OEMs or their System in-tegrators issued by Government/PSU/Telecom Service Provider/Public Listed company having average annual turnover of Rs 500 Cr in last 3 financial years. However, make & model of hardware/software should be clearly mentioned in such certificates.	Deleted
55	8.2.7 Hardware Specifications	The required Server, Storage , Backup and SAN switches should be from same OEM.	The required Server, Storage , Backup should be from same OEM.
56	8.2.7.1 Server- Memory Configured	32 GB*8 or 64 Gb*4 populated with 256 GB RDIMMs 3200 MT/s	32 GB*8 or 64 Gb*4 populated with 256 GB RDIMMs 3200 MT/s or better
57	8.1.12	Proposed Device Management System (Fault and Performance) for Legacy Network shall be of proven performance with 5000 Nodes or 1,20,000 interfaces in (at least two) Government department or Public Sector Units or Telecom service provider or public listed companies in India or outside India. Relevant document for satisfactory perfor-mance certificate /Public Case Study etc shall be submitted.	If offered OSS does not have the capability of mediation layer for Device Management System (Fault and Performance) for Legacy Network, in that case bidder can offer a seperate system and same shall have a proven performance with 5000 Nodes or 1,20,000 interfaces in (at least two) Government department or Public Sector Units or Telecom service provider or public listed companies in India or outside India. Relevant document for satisfactory performance certificate /Public Case Study etc shall be submitted.

**Response to Pre-bid query to E-Tender No. RailTel/Tender/OT/CO/TP/2023-24/OSS/001**

SN	Page No	Chapter No.	Tender Clause No.	Point number of	Bidders Query	Justification/Reason	RailTel's Response
				Clause, if any			
1	213	Chapter 8	8.2.4.1	Item E	Cisco SDN Controller seems to be deployed for IP-MPLS Network, can the controller also be reused for meeting the rest of the RFP Requirements (e.g. for handling the RailTel DWDM network)?  If Yes, can the vendor assume that extension of Cisco SDN Controller will be handled directly by RailTel with the vendor?		1. Tender condition is very clear. Bidder/OEM should provide a mediation layer/SDN-Controller/EMS/NMS for IP-MPLS,DWDM and Legacy devices. 2. For further details may please refer the clause no. 8.2.4.1 of Tender document.
2	204	Chapter 8	8.2.3.1	Point 17 - The Solution MUST cover, though not be limited to, the following technologies: MEF, Ethernet, xDSL, IPv4, IPv6, MPLS, VPN, PDH, WDM, POM.	1. Does RailTel provide an access network supporting xDSL, PDH, PON?  2. Vendor assumes "POM" is a typo and RailTel means "PON"		May please see Corrigendum-III
3	210	Chapter 8	8.2.4.1	Point 16 - The SDN-Controller/EMS supports E2E configuration of the following service types: i. L3VPN ii. EVPN iii.VLL iv.VPLS v.Multicast VPN vi.Internet	For services such as VPN's, RailTel has a network of with Point of Presence (PoPs) ensuring Network reach across India.  Does another Telco provide the Access Network (e.g. last mile fibre or copper) if required to fulfil the E2E service		RailTel owns end to end network including access network.
4	174	Chapter 8	8.2.1.2	Point 10 - a) Feasibility Check b) Create c) Activate d) Read e) Update f) Delete g) Suspend h)Unsuspend i) Rollback j) Undo	Some of the provisioning transaction types are clear (e.g. Create is "provisioning of a new service in the network", Delete is termination of an existing service in the Network, Update is modification of an existing Service, Suspend, Resume, Rollback,  Can RailTel elaborate on the following provisioning transaction types Activate, Read, Undo		1. <b>Activate</b> means to push the service configuration to the end device using mediation layer. 2. <b>Read</b> is view the configuration of service. 3. <b>Undo</b> is revert of change in the service template before pushing to the device.
5	202	Chapter 8	8.2.2.5	Point 7 7.Ticket Analysis a)Active Trouble Tickets b)Historical Trouble Tickets c)Ticket Details	Since the Trouble Ticketing system is an existing system within RailTel, can the vendor assume that RailTel will arrange these reports via their existing vendor		These details will be available on Existing ticketing system (HPSM) of RailTel. The OSS vendor should fetch these details through APIs to Report & Dashboard as per clause no. 8.2.2.5.
6	172	Chapter 8	8.2.1	Point 68. The SOM MUST be capable to handle: a) 2500 requests per day as Mean Day Value b) 1000 requests per day as Standard Deviation c) 4000 requests per hour in a Standard Busy Day d) 1500 requests per hour as Standard deviation among Busy Days"	Also the same volumes are mentioned within Service Activation (Clause 8.2.1.3, point 41). Can Vendor assume this is referring to number of Activation requests and not number of orders.  Can vendor assume that RailTel mean that SOM should support 5500 (Standard Busy Day : 4000 + Standard Deviation : 1500) as the maximum # of requests during busy hour?		May please see Corrigendum-III
7	172	Chapter 8	8.2.1	Point 69. The SOM application SHOULD provide the capability to support the utilization of platform among different departments or Service providers (i.e. GUI with isolated view on its own transactions, service order flows etc.)	Can RailTel explain what is meant by "department" and "Service providers" in this clause		RailTel network is being managed by 04 Regional Nocs and 01 Central NOC . The proposed SOM application should provide the capability to support the utilization of platform among different NOCs (i.e. GUI with isolated view on its own transactions, service order flows etc.)
8	178	Chapter 8	8.2.1.3	Point 19. The Activation Solution SHOULD export and import of all instances of a specific Network Model	Can RailTel elaborate what should be supported in this requirement?		The Activation Solution SHOULD export and import of all data of a specific Network type like Ciena, Tejas etc.

SN	Page No	Chapter No.	Tender Clause No.	Point number of	Bidders Query	Justification/Reason	RailTel's Response
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9	184	Chapter 8	8.2.1.3	Point 73 Concurrent users for OSS will be 250 Nos.	Vendor assumes that 250 concurrent users is for the overall system since the requirement is mentioned in Section 8.2.2 as well. Can RailTel provide a breakdown of the concurrent user per capability (Fault Mgmt, Service Order Management....)		Following is 250 concurrent users' distribution for OSS 1. Fault management—100 Nos 2. Performance management --50 Nos 3. Service order management--50 Nos 4. Other module --50 Nos
10	245	chapter 9	9 and 15	Compliance to Technical Requirements as mentioned in Clause 3.A.1.14 of Chapter-3 of Section-I. Form no. 6 (Chapter-6) - NIL Deviation certificate – to be signed by the Bidder as per Clause no. 4.A.26.	is it right to assume these two expected deliverables are the same NIL certificate? If not please explain the difference		Form no. 06 is the format for NIL Deviation certificate which is to be signed by the bidder against Clause 3.A.1.14 & 4.A.26 of Chapter-3
11	245	chapter 8		9 Technical SoC	Together with the Technical submission do you expect vendors to submit the full SoC compliance in addition to the NIL certificate?		It will be as per tender document.
12	24	Chapter 3	3.A.1.3.4	Dimensioning Details	Please provide total PM records to be loaded per day.		It will be as per tender document.
13	24	Chapter 3	3.A.1.3.4	Dimensioning Details	Provide network growth factor if applicable.		System should be design based on the Dimension details given in the tender document, which is already factor the network growth.
14	193	Chapter 8	8.2.2.1 - 49	Performance Management	Please elaborate on the use case for CM discrepancy checks. Is there a requirement to ingest all CM parameters and evaluate discrepancies against baseline/ golden parameter set?		This requirement is for correlation inbetween performance management & configuration parameters. Any change in the configuartion which is creating discrepancy on baseline parameters.
15	194	Chapter 8	8.2.2.1 - 58	Performance Management	Is data acquisition through streaming telemetry or TWAMP required? If yes, please specify all equipment types, vendors and sources supporting this.		List of the vendors including models already available in the clause no. 8.2.4.1 -B & 8.2.4.1 -E-2
16	194	Chapter 8	8.2.2.1	Performance Management	Is Netflow, Jflow required for data collection? Please specify.		Netflow, Jflow is required for the Legacy devices at mediation layer only.
17	162	Chapter 7		Existing Inventory/ Network detail of RailTel	In addition to network details in section 3.A.1.3.4 and between pages 162-165, is there any other equipment types to be integrated with for data collection and assurance? Please specify all vendors, domains, technologies, equipment types along with counts for interface classification.		List of the vendors including models already available in the clause no. 8.2.4.1 -B & 8.2.4.1 -E-2 and Annexure-II under chapter-7.
18	181	Chapter 8	8.2.3.1	42. The Activation Solution MUST be capable to handle live traffic of: a) 2500 requests per day as Mean Day Value b) 1000 requests per day as Standard Deviation c) 4000 requests per hour in a Standard Busy Day d) 1500 requests per hour as Standard deviation among Busy Days	Can vendor assume that RailTel mean that Service Activation should support 5500 (Standard Busy Day : 4000 + Standard Deviation : 1500) as the maximum # of requests during busy hour?		May please see Corrigendum-III
19	181	Chapter 8	8.2.3.1	44. The Activation Solution SHOULD be capable to execute 200 TPS towards other NE	Can vendor assume this is a total number of TPS to any other NE? E.g. 20TPS northbound to SOM + 60 Southbound to DWDM EMS + 110 Southbound to Cisco SDN-C + 10TPS southbound to legacy NE?		The Activation Solution SHOULD be capable to execute following TPS towards other NE: (i) 40 TPS northbound to SOM (ii) 40 TPS Southbound to DWDM EMS (iii) 80 TPS Southbound to Cisco SDN-Controller & EMS/SDN controller for IP-MPLS. (iv) 40 TPS southbound to legacy NE

SN	Page No	Chapter No.	Tender Clause No.	Point number of	Bidders Query	Justification/Reason	RailTel's Response
				Clause, if any			
20	181	Chapter 8	8.2.3.1	52. The Activation Solution SHOULD provide the capability to support the utilization of platform among different departments or Service providers (i.e. GUI with isolated view on its own transactions)	Can RailTel explain what is meant by "department" and "Service providers" in this clause		RailTel network is being managed by 04 Regional Nocs and 01 Central NOC . The proposed application should provide the capability to support the utilization of platform among different NOCs (i.e. GUI with isolated view on its own transactions, service order flows etc.)
21	182	Chapter 8	8.2.3.1	58. The Activation Solution MUST be able to send technical actions like create, delete, read, modify, rollback to Internal and external Networks	Can RailTel clarify what is meant by "Internal Networks" and "External Networks" in this clause?		Internal Network means Backbone network (IP-MPLS & DWDM) & external network means Last mile network (Legacy devices)
22	183	Chapter 8	8.2.3.1	67. The solution should support Integration with RESTAPI for field tasks.	What types of field tasks is it expected that Service Activation should support?		Solution should have a capability to integrate with any external tool using RESTAPI for the field task, if required.
23	184	Chapter 8	8.2.1.4	5. Currently used fixed line network data sources/NEs like CPEs, Service Edge Routers , Provider Edge Routers, DSLAMs, DHCP , EMS/NMS systems ,Inventory systems MUST be supported by the solution	What are the expected Inventory systems that Sync and Reconciliation must support?		List of the vendors including models already available in the clause no. 8.2.4.1 -B & 8.2.4.1 -E-2 and Annexure-II under chapter-7 for the Day 1 requirement.
24	184	Chapter 8	8.2.1.4	7. The solution MUST provide easy integration points to the existing discovery system and external inventory systems.	What is the existing discovery system? What are the external inventory systems? Can RailTel provide a architecture diagram of these systems?		The solution should have a capability to provide easy integration points to the existing discovery system and external inventory systems, if required. However, Currently Railtel does not have the existing inventory tool and external inventory system.
25	197	Chapter 8	8.2.2.3	8. The solution should store the stitched inter-domain multi-vendor end to end service topologies in a single graph-based inventory database (neo4j).	Is there any particular reason for the specified graph-based inventory database (neo4j)?		May please see Corrigendum-III
26	184	Chapter 8	8.2.1.4	5. Currently used fixed line network data sources/NEs like CPEs, Service Edge Routers , Provider Edge Routers, DSLAMs, DHCP , EMS/NMS systems ,Inventory systems MUST be supported by the solution	What are the expected Inventory systems that Sync and Reconciliation must support?		List of the vendors including models already available in the clause no. 8.2.4.1 -B & 8.2.4.1 -E-2 and Annexure-II under chapter-7 for the Day 1 requirement.
27	184	Chapter 8	8.2.1.4	7. The solution MUST provide easy integration points to the existing discovery system and external inventory systems.	What is the existing discovery system? What are the external inventory systems? Can RailTel provide a architecture diagram of these systems?		The solution should have a capability to provide easy integration points to the existing discovery system and external inventory systems, if required. However, Currently Railtel does not have the existing inventory tool and external inventory system.
28	197	Chapter 8	8.2.2.3	8. The solution should store the stitched inter-domain multi-vendor end to end service topologies in a single graph-based inventory database (neo4j).	Is there any particular reason for the specified graph-based inventory database (neo4j)?		May please see Corrigendum-III

SN	Page No	Chapter No.	Tender Clause No.	Point number of	Bidders Query	Justification/Reason	RailTel's Response
				Clause, if any			
29	203	Chapter 8	8.2.3.1	6. The Solution MUST support the hierarchical modelling of physical and logical re-sources in arbitrarily complex trees or Directed Acyclic Graphs, compatibly to their nature. E.g. Hierarchy of IP ranges and addresses, hierarchy of internal and external sites, graphs modelling inter-dependencies among network resources in the delivery of a service, graphs modelling inter-dependencies among CFSs and RFSS. The AI/ML module should provide following functionalities a) AI/ML based RCA and anomaly detection . Roadmap is also acceptable and it should be implemented before Provisional Acceptance certificate( PAC) with no cost to RailTel. b) AI/ML based adaptive operation to define automation rules. Roadmap is also acceptable and it should be implemented before Provisional Acceptance certificate( PAC) with no cost to RailTel. c) AI/ML based extrapolation of alarms which can be translated to recommendations. Roadmap is also acceptable and it should be implemented before Provisional Acceptance certificate( PAC) with no cost to RailTel.	Can the vendor propose the requirements to be handled by Fault Management instead of a Discovery and Inventory system?		Yes, Vendor can propose this requirement through Fault management instead of Discovery and Inventory system.
30	214	Chapter 8	8.2.4.2	Device Management System (Fault and Performance) for Legacy Network	A number of the requirements in this section are outside the scope of what the vendor understand to be Fault Management and Performance Management, e.g; 30. The solution MUST provide Extensive network, application, service, and topology discovery. 32. The solution MUST provide zero-touch appliance service. 34. The solution MUST provide Forecasting/capacity planning. 35. The solution MUST provide business service hierarchy with root cause and impact analysis Most of these are covered elsewhere in the RFP, and the vendor can provide these capabilities in other application than the "Device Management System". Can RailTel please clarify how the vendor should respond to these requirements?		These features are specific to Device management systems for the legacy devices, however these features covered elsewhere in the tender are the OSS features.
31	N/A	N/A	N/A	N/A	Vendor would like to assume 50,000 Enterprise service instances for solution sizing, Railtel to confirm if this is acceptable.  For example, if an Enterprise customer has a L2 VPN service at a specific site, its counted as one instance of a service. If the same customer now buys a 2nd L2 VPN service, then its counted as the second instance of the service. If the customer now buys an Internet Service, its counted as the third service instance.		Vendor can assume 1,00,000 Enterprise service instances for the solution sizing.
32	N/A	N/A	N/A	N/A	Vendor would like to assume that this is a greenfield implementation and no data migration is required for the overall solution. It is also expected Railtel will provide information relating to services that are already active for the inventory build.		Yes, no data migration is required for the overall solution

SN	Page No	Chapter No.	Tender Clause No.	Point number of	Bidders Query	Justification/Reason	RailTel's Response
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33		Chapter 2	Notes		Vendor would like to assume that "Single make" OSS includes the key solution capabilities listed in the sections below a) 8.2.1 - Service Fulfilment (including sub-sections) b) 8.2.2 - Service Assurance (including sub-sections) c) 8.2.3 - Discovery and Inventory (including sub-sections) d) 8.2.4 - Mediation gateway (excluding SDN Controller/EMS which as per industry standards is a Network component)		Bidder has to quote a single make of OSS application (except mediation layer) for the module of Assurance, fulfillment, Inventory & discovery as defined in the chapter-3 & 8.
34	77	Chapter No. 4	4.A.14.1: Eligibility Criteria Requirements for Bidders:	(j)	Since not much companies are having the desired technical capability criteria in India, we request Railtel to kindly allow usage of experience of either of the consortium partner/OEM.		It will be as per tender document
35	84	Chapter No. 4	4.A.14.3: Eligibility Credentials and Verification	4.A.14.3.4	We understand that experience of international projects of OEM/ Bidder/either of the consortium partner, shall be acceptable to meet the required eligibility criteria. Pls confirm.		It will be as per tender document
36	85	Chapter No. 4	4.A.14.3: Eligibility Credentials and Verification	4.A.14.3.5	We request Railtel to kindly amend the clause to " In the event of Foreign Original Equipment Manufacturer (OEM)/Bidder, it's Indian Subsidiary fully authorized for bidding on behalf of OEM is allowed to participate with the experience and financial credential of parent company with specific authorization for doing so from the OEM/Parent Company. The specific authorization addressed to RailTel should be submitted by the bidder"	The Foreign System Integrator should also be allowed to use its Indian registered subsidiary fully authorized on behalf of Parent Company to participate with the experience and financial credentials of Parent Company.	It will be as per tender document
37	85	Chapter No. 4	4.A.15: Consortium Bids	4.A.15.2, 4.A.15.4	We request Railtel to kindly amend the referred clauses by allowing either of the consortium partner should meet the eligibility criteria.	The tender clauses 4.15.1, 4.15.3 & ppoint (iii) in Form no. 12 also states that the consortium partners shall pool their resources and relevant experience to comply the eligibility criteria and qualify for participation. This shall in turn enhance more participation and a healthy competition.	It will be as per tender document
38	85	Chapter No. 4	4.A.15: Consortium Bids	4.A.15.1, 4.A.15.3		The referred tender clauses also states that the consortium partners may pool their resources and relevant experience to comply the eligibility criteria and qualify for participation. This shall in turn enhance more participation and a healthy competition.	It will be as per tender document
39	152	Chapter No. 6	Form No. 12	iii). That the members of the Consortium have satisfied themselves that by pooling their technical know-how and technical and financial resources, the Consortium fulfills the prequalification/ eligibility criteria stipulated for a bidder, to participate in the bid for the said tender process for "(NAME OF WORK)"	Since not much companies are having the desired technical capability criteria in India, we request Railtel to kindly allow usage of experience of either of the consortium partner/OEM.		It will be as per tender document
40	74,77	Chapter 4	4.A.14.1	(d) & (j)	We believe not much companies in India are having this kind of technical capabilities and thus, we request Railtel to kindly allow the usage of experience of either of the consortium partner/OEM. Kindly confirm your acceptance.	This shall increase participation and encourage healthy competition for Railtel.	It will be as per tender document
41	85/152	Chapter 4 & Chapter 6	4.A.15	4.A.15.1 & 4.A.15.3	In points 4.A.15.2 and 4.A.15.4 and clause iii) of Form 12 of the tender document it is inference that consortium is allowed to utilise the credentials of either of the consortium partner to qualify and deliver the project. We thus request Railtel to kindly consider the credentials of either of the consortium partner to meet the eligibility criteria. The roles & responsibilities of each consortium partner shall be defined in the consortium agreement. Please confirm.	This shall increase participation and encourage healthy competition for Railtel.	It will be as per tender document

SN	Page No	Chapter No.	Tender Clause No.	Point number of	Bidders Query	Justification/Reason	RailTel's Response
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42	85	Chapter 4	4.A.14.3	4.A.14.3.5	We request Railtel to allow the same flexibility for the System integrator company registered in India to utilise the credentials of its Foreign Parent Company to meet the eligibility criteria as stated in the tender document. The specific Authorization letter addressed to Railtel should be submitted by the System Integrator. Kindly confirm.	This shall increase participation and encourage healthy competition for Railtel.	It will be as per tender document
43	77	Chapter 4	4.A.14.1	(j)	Since not much companies have such exhaustive experience of 2700 nodes, we request Railtel to reduce the quantities of 2700 nodes to 2000 nodes. Kindly confirm your acceptance.	This shall increase participation and encourage healthy competition for Railtel.	May please see Corrigendum-III
44	19	CHAPTER-3 A. SCOPE OF WORK AND TECHNICAL REQUIREMEN TS		3.A.1.2 Overview of the Scope of Work	<b>Integration Scope:</b> What are the specific Network Elements (NEs), Element Management Systems (EMSs), and Network Management Systems (NMSs) currently in use within the DWDM & IP-MPLS Network? Could you provide details on their architecture and interfaces?	Request to clarify	Detail of Existing NMS for DWDM & their interface is given in Annexure-IV under chapter-7.
45	19	CHAPTER-3 A. SCOPE OF WORK AND TECHNICAL REQUIREMEN TS		3.A.1.2 Overview of the Scope of Work	<b>Future Expansion:</b> What are the anticipated future network expansions and technologies (such as ASON, OTN, GPON, MPLS-TP, and SDH) that the OSS should be prepared to integrate with? Are there any specific timelines for these expansions?	Request to clarify	Tender condition is very clear. Proposed OSS-Application should support Technologies like ASON, OTN, GPON, MPLS-TP and SDH etc. in future, in case required by upgrading the license/hardware/software.
46					<b>IP/MPLS Network Integration:</b> What are the detailed requirements for integrating RailTel's IP/MPLS Network into the proposed OSS? Are there any existing challenges or constraints we should be aware of?	Request to clarify	It will be as per tender document
47					<b>System Interoperability:</b> Can you provide more information on the integration requirements with other related systems such as the Order Management System, Billing System, and Asset Management System? What are the expected data flows and interactions between these systems and the OSS?	Request to clarify	It will be as per tender document
48					<b>National NOC Objectives:</b> What are the specific functional and performance objectives for the National Network Operation Centre (NOC) that the OSS should enable? How will the success of the NOC be measured?	Request to clarify	It will be as per tender document
49	189	8.2 Detailed Technical Specification of OSS Solution		8.2.2.1 Performance Management	<b>Customer Satisfaction Metrics:</b> What metrics or KPIs will be used to measure increased productivity, resolution efficiency, and customer satisfaction as a result of implementing the OSS? Are there existing benchmarks or targets?	Request to clarify	It will be as per tender document
50					<b>Scalability Requirements:</b> What are the expected scalability requirements for the OSS, considering both current network size and anticipated growth? How many network elements and systems will the OSS need to support?	Request to clarify	It will be as per tender document
51					<b>Security Considerations:</b> What are the security requirements for the OSS, especially regarding data protection, user access control, and integration with other network and business systems?	Request to clarify	It will be as per tender document
52					<b>Customization and Flexibility:</b> How much flexibility is required in the OSS to customize workflows, reporting, and user interfaces? Are there any specific customization needs identified by the stakeholders?	Request to clarify	It will be as per tender document

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53	21	3.A.1.3 Essential parameters of OSS solution		3.A.1.4 OSS Solution Implementation Phases	<b>Implementation and Support:</b> What are the expected timelines for the OSS implementation, and what level of ongoing support and maintenance is required? Are there any specific SLAs or support models that the tender should address?	Request to clarify	It will be as per tender document
54	72	GTC	4.A.11	Liquidated Damages- Time of Essence The timely delivery is the essence of this tender. Liquidated damages will be applicable at the rate of half percent per week or part thereof for undelivered portion of SOR subject to a maximum of 10% of the cost of Purchase order/LOA for any reason whatsoever attributed to failure of bidder. NICI will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.	<del>The timely delivery is the essence of this tender.</del> <b>The supplier will deliver the goods within a reasonable time frame.</b> Liquidated the damages will be applicable at the rate of half percent per week or part thereof for undelivered portion of SOR subject to a maximum of 10% of the cost of Purchase order/LOA for any reason whatsoever attributed to failure of bidder. NICI will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.	While we agree in principle, time is of essence as such creates additional obligations for the service provider and hence suggest deletion.	It will be as per tender document
55	101	GTC	4.A.42	Limitation of Liability- Excluded Losses The Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and	The Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, <del>provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser.</del>	Suggest deletion	It will be as per tender document
56	98	GTC	4.A.31	Termination New Insertion	Additional clause to be included: Supplier may terminate for cause with 15 days notice in case of non payment by Purchaser.	New Insertion	It will be as per tender document
57	101	GTC	4.A.42	Limitation of Liability- Unlimited Liability Events The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Supplier to indemnify the Purchaser with respect to intellectual property rights infringement.	The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, <del>provided that this limitation shall not apply to any obligation of the Supplier to indemnify the Purchaser with respect to intellectual property rights infringement.</del>	Suggest deletion	It will be as per tender document
58	98	GTC	4.A.30.1	Indemnity by Contractors The Contract shall indemnify and save harmless the RailTel from and against all actions, suit proceedings, losses, costs, damages, charges, claims, and demands of every nature and description brought or recovered against the RailTel by reason of any act or omission of the Contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.	The Contract shall indemnify and save harmless the RailTel from and against all actions, suit proceedings, losses, costs, damages, charges, claims, and demands of every nature and description brought or recovered against the RailTel by reason of any <del>gross negligence or wilful misconduct act or omission</del> of the Contractor, his agents or employees, in the execution of the works or in his guarding of the same. <del>All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.</del>	Suggest Modification	It will be as per tender document
59	99	COMMERCIAL TERMS & CONDITIONS	4.A.32	Risk & Cost If the contractor fails to deliver the equipment or honour the contractual commitment within the period fixed for such delivery in the contract, the Purchaser may terminate the LOA/contract in whole or in part, the Purchaser may proceed to purchase, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered at no risk and cost to contractor. However, Performance Bank Guarantee shall be encashed. The failed bidder shall not be permitted to take part in the tender for balance work. The Maximum Liability of bidder to any Loss/Damages to RailTel including Liquidity Damages and Performance Guarantee shall be limited to 100% of Value of contract.	Request you to modify the clause of Risk & Cost as given below: If the contractor fails to deliver the equipment or honour the contractual commitment within the period fixed for such delivery in the contract, the Purchaser may terminate the LOA/contract in whole or in part, the Purchaser may proceed to purchase, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered at no risk and cost to contractor. <del>However, Performance Bank Guarantee shall be encashed.</del> The failed bidder shall not be permitted to take part in the tender for balance work. The Maximum Liability of bidder to any Loss/Damages to RailTel including Liquidity Damages and Performance Guarantee shall be limited to 100% of Value of contract.	Suggest Modification	It will be as per tender document

SN	Page No	Chapter No.	Tender Clause No.	Point number of	Bidders Query	Justification/Reason	RailTel's Response
				Clause, if any			
60	71	COMMERCIAL TERMS & CONDITIONS	4.A.8.7	Dedicated Support Engineers In addition to the above penalty for breach of the SLA parameters, No payment for the month would be made for all service under a Section, where the down time observed for more than 20% of the installed solution.	Request you to modify the cap as given below : In addition to the above penalty for breach of the SLA parameters, No payment for the month would be made for all service under a Section, where the down time observed for more than 20% 25% of the installed solution.	Suggest Modification	It will be as per tender document
61	69	COMMERCIAL TERMS & CONDITIONS	4.A.8.6	Penalty Penalties shall be calculated and is to be deducted from the Annual Maintenance Charges on quarterly basis. Overall penalty in a quarter shall not exceed 15% of the due amount of the quarterly AMC work executed by the Bidder	We request you to pl reduce the penalty to 10% of the quarterly AMC work executed by the bidder as it is a standard being followed in government RFP/Tenders.	Suggest Modification	It will be as per tender document
62	72	COMMERCIAL TERMS & CONDITIONS	4.A.14.1	Eligibility Criteria Requirements for Bidders: Documents Required: End user certificate successfully commissioned and working satisfactorily certificate.	As we have executed NDA for our projects or we have entered in confidentiality with our customer(s) therefore we request you to pl modify the Documentation required for the Technical Capability 2 is given as under: End user certificate successfully commissioned and working satisfactorily certificate. OR Bidder can also submit CA certificate giving the project details.	Request to include project where NDA has been signed with Customers	It will be as per tender document
63	25	SCOPE OF WORK AND TECHNICAL REQUIREMENTS	3.A.1.3.5	Hardware Requirements Bidder must consider given environments for solution deployment – DC/Production, Pre-Production, for the OSS layer. The offered system (OSS, SDN- Controller/EMS & Device Management for Legacy devices) shall be provisioned/hosted on Primary Data centre(DC) Site at Gurgaon. For DR option, either of two options can be offered - i) Distributed HA where DC will have an instance and another instance will be at DR Site (Secundrabad). ii) ii) Local HA at DC Site (Gurgaon) in case Geo DR (Active-Active) is not offered.	We understand that in case Local HA is provisioned at DC Site (gurgaon), the DR will have a non-HA single instance and DC-DR will operate in Active Passive mode, wrt to DR Option no ii). Pl confirm.  Also clarify that in case of Distributed HA, single instance in DC and another instance in DR. DC & DR will operate in Active-Active mode, wrt sno i). Pl confirm.	Provide more clarity on implementation of DC-DR Options	Bidder can offer either Distributed HA (Active-Active) at Gurgaon and Secunderabad or Local HA (Active-Active or Active- Passive) at Gurgaon for the complete solution of production environment.
64	141	CHAPTER- 6	FORM (S)/PROFORMA (S)		Request you to pl let us know which Forms No's have been modified in Chapter-6 Form(s)/Proforma(s) wrt to old RFP	To have more clarity on the forms	It will be as per tender document
65	143	CHAPTER- 6 - FORM (S)/PROFORMA (S)	FORM NO. 7 – OFFER LETTER HEA FOR MAF	clause #6	Requesting to remove the End of Sale requirement.	End of sale is announced as part of roadmap which can change for various reasons, so no OEM can guarantee End of Sale life s, further RailTel is asking for 8 years of End of support life which will guarantee the support for 8 years. Therefore, requesting RailTel to remove the requirement of End of Sale .	Please see Corrigendum-III
66	242	Chapter-8	8.2.7.3 Backup Solution	clause#8	Requesting to change the clause as below, "Proposed purpose-built backup appliance or backup solution should be offered with the any industry leading backup software like Networker, NetBackup, Commvault, NetVault and Data Protector, etc. and should support deduplication at backup server/ host / application level so that only changed blocks travel through network to backup device."	Proposed solution components shall be industry leading and shall be offered with any one backup software.	Please see Corrigendum-III

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				Clause, if any			
67	241-242	Chapter-8	8.2.7.3 Backup Solution	Clause#1,2 and 3	Backup specifications are having two specs, it looks like that clauses that were changes during last RFP corrigendum have been retained along with old clause. Requesting to remove the Highlighted Text in Red as below from these three clauses, <b>Clause#1, The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose-built backup appliance should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup and VTL backup simultaneously via NFS, CIFS, FC, OST/Catalyst/NDMP protocols. All the protocols should be available to use concurrently with global deduplication for data ingested across all of them.....</b> The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose-built backup appliance or disk base solution should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup or backup to VTL via NFS, CIFS, FC, OST/Catalyst/NDMP protocols. All the protocols should be available to use concurrently.	These clauses has been changed during last tender corrigendum. In this re-tender both olde specs and modified text were retained which is causing confusion. So , requesting to remove the highlighted text in red (which was changed in corrigendum)to avoid confusion.	Please see Corrigendum-III
68					<b>Clause#2, The offered purpose-built backup appliance must have an inbuilt mechanism to defend the backup data against data integrity issues, it should also have a mechanism that check and validate the backup data residing on the appliance against any corruption without any human intervention.</b> Proposed backup appliance must have data security feature retention lock or WORM (Write Once Read Many) and which will ensure that not even system/backup administrator can delete, expire, modify backed up data before expiry of retention period from the backup appliance.		No change it will be as per tender document
69					<b>Clause#3, The proposed purpose-built backup appliance should support SSD to help in superior performance support for Instant Access/ Restore of the protected virtual machine.</b> Proposed purpose-built backup appliance or backup solution should be offered with mechanism of data protection against data loss in power failure scenario.		No change it will be as per tender document
70	Pg 69	CHAPTER- 4	4.A.8.6	Penalty	Penalties shall be calculated and is to be deducted from the Annual Maintenance Charges on quarterly basis. Overall penalty in a quarter shall not exceed 15% of the due amount of the quarterly AMC work executed by the Bidder.	<b>Request you to please modify/change below highlighted point.</b>  Penalties shall be calculated and is to be deducted from the Annual Maintenance Charges on quarterly basis. Overall penalty in a quarter shall <b>not exceed 10%</b> of the due amount of the quarterly AMC work executed by the Bidder.	No change it will be as per tender document.
71	Pg 71	CHAPTER- 4	4.A.8.7	Dedicated Support Engineers	In addition to the above penalty for breach of the SLA parameters, No payment for the month would be made for all service under a Section, where the down time observed for more than 20% of the installed solution.	<b>Request you to please modify/change below highlighted point.</b>  In addition to the above penalty for breach of the SLA parameters, No payment for the month would be made for all service under a Section, where the down time observed for <b>more than 25%</b> of the installed solution.	No change it will be as per tender document.

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				Clause, if any			
72	Pg 99	CHAPTER- 4	4.A.32	Risk & Cost	<p>If the contractor fails to deliver the equipment or honour the contractual commitment within the period fixed for such delivery in the contract, the Purchaser may terminate the LOA/contract in whole or in part, the Purchaser may proceed to purchase, upon such terms and in such manner as it deems appropriate, goods similar to those unde-livered at no risk and cost to contractor. However, Performance Bank Guarantee shall be encashed. The failed bidder shall not be permitted to take part in the tender for balance work.</p> <p>The Maximum Liability of bidder to any Loss/Damages to RailTel including Liquidity Damages and Performance Guarantee shall be limited to 100% of Value of contract.</p>	<p><b>Request you to please modify/change below highlighted point.</b></p> <p>If the contractor fails to deliver the equipment or honour the contractual commitment within the period fixed for such delivery in the contract, the Purchaser may terminate the LOA/contract in whole or in part, the Purchaser may proceed to purchase, upon such terms and in such manner as it deems appropriate, goods similar to those unde-livered at no risk and cost to contractor. <del>However, Performance Bank Guarantee shall be encashed.</del> The failed bidder shall not be permitted to take part in the tender for balance work.</p> <p>The Maximum Liability of bidder to any Loss/Damages to RailTel including Liquidity Damages and <del>Performance Guarantee</del> shall be limited to 100% of Value of contract.</p>	No change it will be as per tender document.
73	Pg 11	CHAPTER- 2	SCHEDULE OF REQUIREMENT (SOR) SCHEDULE B	2.2	Man-days required for further customization of OSS Solution and with associate module/software after PAC as per scope defined in clause no. 3.A.1.16 of Chapter-3	<p><b>There is no mention of the payment terms 400 man-days required for further customization of the OSS solution.</b></p> <p><b>Request you to please confirm the payment terms for the mentioned clause.</b></p>	May please refer the clause no. 3.A.1.16.
74	Pg 33	CHAPTER- 3	Timelines for Training and Development are as follows:	Phase 3 Point 3	<p><b>Deliverable-</b> Completion of training on OSS, Device man agement, GIS Tool and other proposed systems of Phase-3 including training on SDK/API of all proposed system. ----- 20 Man Week</p> <p><b>Timelines-</b> D + 25</p>	<p><b>In the pre-bid meeting, the project completion duration was mentioned as 30 months, but in the tender document states 25 months.</b></p> <p><b>Request you to please confirm whether the project duration is 30 months or 25 months.</b></p>	Period mentioned under clause no. 3.A.1.9 is for Training and Development during implementation of project. For delivery/Implementation timelines of project refer clause no. 4.A.4.1
75	Pg 15	CHAPTER- 2	Annexure-A	Point "S"	Bidder(s) shall upload the complete SOR along with the price Breakup of individual itemized BOM for EACH ITEM (as per Format given below) along with the financial bid. The Financial Bid submitted without itemized priced BOM may be liable to be rejected.	<p><b>In the tender document, there is requirement of price break-up of the Schedule of Rates (SOR) in the price bid, but there is no option on the online portal to upload the SOR break-up.</b></p> <p><b>Request you to please confirm &amp; clarify of the above query.</b></p>	Price Breakup of individual itemized BOM for EACH ITEM required to be submitted on Company's letter head alongwith Price bid (cover two) and to be uploaded under Mandatory Documents Tab on e-nivida.

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				Clause, if any			
76	234	CHAPTER-8	8.2.7 Hardware Specifications. 8.2.7.1 Server	2. Supported CPU : Up to two 3rd Generation Intel®Xeon® / AMD EPYC Scalable processors with up to 40 cores per processor.	Please amend it as below " Supported CPU : Up to two 5th Generation Intel®Xeon® / AMD 9000 EPYC Scalable processors with up to 40 cores per processor."	Asked CPU generation is two generation old and with latest generation CPU organization will get atleast 40% better performance on similar cost. Please amend it as below " Supported CPU : Up to two 5th Generation Intel®Xeon® / AMD 9000 EPYC Scalable processors with up to 40 cores per processor."	May please see Corrigendum-III
77	234	CHAPTER-8	8.2.7 Hardware Specifications. 8.2.7.1 Server	3. Configured CPU : 2*32 cores @ 2 GHz, 48 MB Cache(Gold 6338 / AMD EPYC 7513) or better	Please amend it as below "Configured CPU : 2*32 cores @ 2.6 GHz, 60 MB Cache or better"	Asked CPU generation is two generation old and with latest generation CPU organization will get atleast 40% better performance on similar cost. Please amend it as below "Configured CPU : 2*32 cores @ 2.6 GHz, 60 MB Cache or better"	May please see Corrigendum-III
78	234	CHAPTER-8	8.2.7 Hardware Specifications. 8.2.7.1 Server	4. Memory Slots : Up to 32 x DDR4 RDIMMs/LRDIMMs	Please amend to qualify both the architecture as below " Memory Slots : Up to 24 x DDR5 RDIMMs/LRDIMMs."	Architecture for Intel and AMD is different. AMD supports 24 DIMM slots with their latest generation of processor but have more memory bandwidth to deliver more performance. Please amend to qualify both the architecture as below " Memory Slots : Up to 24 x DDR5 RDIMMs/LRDIMMs."	May please see Corrigendum-III
79	244	CHAPTER-8	8.2.7 Hardware Specifications. 8.2.7.4 SAN Switch	Additional	Kindly ammend: SAN Switch should provide end to end visibility of fibre channel SAN traffic. It should inspect I/O flow to bring out a unified view of the infrastructure irrespective of the architecture or vendor of storage arrays, servers or operating systems.	This feature will bring complete visibility into your infrastructure and will reduce risks and helps maintain optimum performance. It will also help in determining the cause of storage access issues: storage array, SAN, or host.	No change, it will be as per Tender document
80	244	CHAPTER-8	8.2.7 Hardware Specifications. 8.2.7.4 SAN Switch	Additional	Kindly ammend: Switch should provide proactive and predictive troubleshooting and capable of generating automated alarms. Switch should monitor flows between the compute and storage layers, including the read and the write transactions between a host and the backend storage.	This feature will simplify operations and proactively resolve problems and also Data-driven decisions help to deploy applications faster. 1. This feature helps find the slowest storage and host ports in the entire network fabric. 2. Identify the busiest storage and host ports in the entire network fabric. 3. Discover if poor application performance is due to storage access issues.	No change, it will be as per Tender document

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				Clause, if any			
81	Page 19	Chapetr 3	3.A.1.2 Overview of the Scope of Work	The offered system shall be provisioned/hosted on Primary Data Centre (DC) site at Gurgaon and a Disaster recovery (DR) site Secunderabad (if applicable).	We understand for DC&DR or Local HA setup need to be provided as per clause number 3.A.1.3.5, point number 3 from page 25 of the RFP	Clarification	Bidder can offer either Distributed HA (Active-Active) at Gurgaon and Secunderabad or Local HA (Active-Active or Active- Passive) at Gurgaon for the complete solution of production enviornment.
82	Page 22	Chapetr 3	3.A.1.3.1. Integrated Solution	Point #1: All integration methodologies implemented in the solution must be a common and industry-wide standard (e.g. SOAP, CORBA for interfaces and CSV, XML for data structures etc). A proprietary interface protocol and data structure (e.g. Binary etc) is not acceptable unless a tool to convert them to a standard one is offered and validated.	Change request: Kindly add All integration methodologies implemented in the solution must be a common and industry-wide standard (e.g. SOAP, CORBA for interfaces and CSV, XML for data structures etc). A proprietary interface protocol and data structure (e.g. Binary etc) is not acceptable unless a tool to convert them to a standard one is offered and validated. Any Tool to be used for conversion in standard interface & data modle should be be in alignment with RESTCONF/REST and data structures to comply with IETF or TAPI 2.1.3 data model for all the use cases proposed in this RFP. This converted data will be validated before accepting as valid integration methodology.	for Multi-vendor, Multi-Layer, Multi-Domain SDN Controller to integrate with DWDM vendors, the industry wide interfaces expected is RESTCONF/REST and data structures to comply with IETF or TAPI 2.1.3 data model.  Any proprietary interface protocol or data structure & SOAP/CORBA or CSV/XML are not standarized hence not eligible for Multi-vendor, Multi-Layer, Multi-Domain SDN Controller integration.	May please see Corrigendum-III
83	Page 22	Chapetr 3	3.A.1.3.1. Integrated Solution	Point #2: Bidder shall design the system based on the interface requirement as enumerated above. In case any other interface is required, Bidder shall have to clearly mention and provide the same to meet complete integration requirement of various modules.	Kindly refer The enclosed tab "OpticalOEM_requirments" need to be referred for interface requirments to meet complete integration with Multi-vendor, Multi-Layer, Multi-Domain SDN Controller	For complete integration on Multivendor DWDM domain controller	It will be as per tender document.
84	Page 164	Annexure-IV	Annexure-IV: Table 1. Existing NMS detail for DWDM of RailTel	The existing NMS detail for DWDM also includes "Coriant" & "ECI". Point 1: Existing NMS detail for DWDM of RailTel Inte-gra-tion Re-quired with OSS through Me-dia-tion Gate-way (In day-1)	Kindly clarify, on these DWDM OEM (Coriant" & "ECI), whether their DWDM EMS would be excluded to be integrated with Multi-vendor, Multi-Layer, Multi-Domain SDN Controller, as per 8.2.4.2 Device Management System (Fault and Performance) for Legacy Network of page no. 214 and 215.	Clarity on Legacy and SDN ready DWDM EMS	Coraint & ECI DWDM is legacy device.
85	Page 164	Annexure-IV	Annexure-IV: Table 1. Existing NMS detail for DWDM of RailTel	For Nokia DWDM PSS ( last row in table) The given NMS name does not seem right, it should be either NSP or NFM-T.	Kindly clarify on Nokia DWDM NMS name & version and also details on compatibility sheet  "Kindly refer The enclosed tab "OpticalOEM_requirments" need to be referred for interface requirments to meet complete integration with Multi-vendor, Multi-Layer, Multi-Domain SDN Controller"	Shared name is showing Nokia Switch name "1830 PSS". For complete integration on Multivendor DWDM domain controller	Nokia NMS Name is WS-NOC (Ver 23.12)
86	Page 164	Annexure-IV	Annexure-IV: Table 1. Existing NMS detail for DWDM of RailTel	For Tejas DWDM, there are 2 NMS/EMS names.	Kindly clarify on correct NMS/EMS/Controller version for Tejas DWDM and also details on compatibility sheet: "OpticalOEM_requirments" enclosed TAB  "Kindly refer The enclosed tab "OpticalOEM_requirments" for interface requirments to meet complete integration with Multi-vendor, Multi-Layer, Multi-Domain SDN Controller"	Shared name TJ5500 is showing Tejas EMS, as per public information. However, EMS-1 is also mentioned, which does not showing as EMS of Tejas make. However, compatibility on NBI interfaces information is not avilable as public document. So, kindly share the details of the NBI of Tejas mane NMS for DWDM. For complete integration on Multivendor DWDM domain controller	Only TJ1600 equipments & TJ5500 NMS should be integrated with the OSS as per NBI interfaces defined in the Tender. Same is defined in Annexure-IV under chapter-7 of Tender document.
87	Page 165	Annexure-IV	Annexure-IV: Table 2 : Supported Interface in DWDM EMS/NMS for OSS Integration	Supported Interface in DWDM EMS/NMS for OSS Integration: Corriant	Kindly clarify, on these DWDM OEM (Coriant), whether Corriant DWDM EMS would be excluded to be integrated with Multi-vendor, Multi-Layer, Multi-Domain SDN Controller, as per 8.2.4.2 Device Management System (Fault and Performance) for Legacy Network of page no. 214 and 215.	Clarity on Legacy and SDN ready DWDM EMS	Coriant & ECI DWDM is legacy device

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				Clause, if any			
88	Page 165	Annexure-IV	Annexure-IV: Table 2 : Supported Interface in DWDM EMS/NMS for OSS Integration	For Tejas the supported interface for FM/PM/Discovery & Inventory is not as per Standards as mentioned in above point#1 & 3.	need details on compatibility for all use cases mentioned on compatibility sheet: "OpticalOEM_requirements" enclosed TAB  "Kindly refer The enclosed tab "OpticalOEM_requirements" need to be referred for interface requirements to meet complete integration with Multi-vendor, Multi-Layer, Multi-Domain SDN Controller"	Clarity on Legacy and SDN ready DWDM EMS	The optical OEM requirement (defined in clause no. 8.2.4.1 SDN Controller/EMS- Point : D-2) will be applicable in case of bidder wants to propose a multi domain SDN controller as a Mediation gateway in between OSS layer & EMS of the respective DWDM OEM. Please also refer Corrigendum-III.
89	Page 212	CHAPTER-8	8.2.4 Mediation Gateway	D. 1. Bidder/OEM can propose a Mediation layer or SDN Controller for the integration of DWDM EMS/NMS with the proposed OSS system. Offered system should support following DWDM OEMs for fault, performance, and <b>ser-vic</b> e management from day#1: i. Adva ii. Tejas iii. Ciena iv. Nokia	Kindly clarify that our understanding on <b>service management</b> in DWDM domain controller is related to the <b>service assurance or visualization</b> only.	Clarification	May please see Corrigendum-III
90	Page 212	CHAPTER-8	8.2.4 Mediation Gateway	D. Poin#2: The Interfaces supported by offered solution shall be (at-least, may not be limited to) - i) FM – Kafka or SNMP v3 ii) PM – RestAPI or sFTP ii) Inventory – RestAPI iv) Discovery – Rest API v) Service provisioning – Rest API	These are not as per Industry Standards. Kindly add/modify, as below As per industry standards for DWDM, these should be as follow: i) FM – Kafka or <b>gRPC, Websocket</b> ii) PM – RestAPI or <b>Kafka or gRPC, Websocket</b> ii) Inventory – <b>RESTCONF/REST based APIs with TAPI data model</b> iv) Discovery – <b>RESTCONF/REST based APIs with TAPI data model</b> v) Service provisioning – <b>RESTCONF/REST based APIs</b>	As per industry standard protocol/interfaces	May please see Corrigendum-III
91	Page 25	Chapter-3	3.A.1.3.5 Hardware Requirements	Point 4: System performance is expected to be within the response times as mentioned below for a closed room LAN environment. The bidder is expected to size the hardware as per these response times. The bidder is expected to calculate and provide the sizing with respect to these response times. With 95% users loaded on the system the target response times are as given below: a. Menu navigation of OSS System <2seconds b. Screen opening of OSS <3 seconds. c. Look up response from DB tables <6 seconds. d. Screen navigation <3 seconds e. Transaction commitment <3 seconds f. Simple & Medium Query <12 seconds g. Simple & Medium Report generation <30 seconds	Response times are subject to a lot of factors that may not be under full control of the OMS System (Part of OSS System)  1. Response time from External Integration Systems (Inventory, Topology, IPAM) 2. Response time of devices and controllers 3. Order concurrency and Volume of transactions and System HW specs available to cater to the requirement. 4. Response time does not cover the service validation times (pre-checks and post-checks) during service provisioning  Bidder can capture the timestamps associated with the pt 1,2 response times and also the total time taken by the OMS system to provision the order.		OEM/bidder should provide a undertaking for the compliance on the response time.
92	Pg 21	Chapter-3	3.A.1.3.1. Integrated Solution	.....Importantly, the platform should be highly flexible for configuration of workflows, automation, and information retrieval from external inventory in order to effectively cope with operational processes and environment	While the OMS platform (part of OSS System) will be flexible for configuration of workflows, automation and information retrieval from external inventory, it will require incremental customization which are not end-user driven but done by developers.		OEM/bidder should provide the compliance for the same
93	Pg 26	Chapter-3	3.A.1.3.6 Database	Point 1: ..... If an open-source database is used, the required support (security patches, upgrade, software bug fixes, error handling) shall be provided by the bidder.	Kindly clarify that security patches, upgrade, software bug fixes, error handling will be installed in environment based on availability of the same from the open-source community.		Agreed.

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94	Pg 196	Chapter-8	8.2.2.3	For brownfield discovery, the solution should be able to discover and reconcile net-work resources from multiple domains, enrich the network data with secondary data sources, stitch resources across domains to create end-to-end service(s). It should have advanced features like contextual discovery, real time discovery on network configuration change events.	contextual discovery requires context to be provided in the form of high level service order intent (parameters) on OMS system. Real time discovery and reconciliation would be counter productive since OMS system needs to be the single source of change mgmt and Out Of Band changes are discouraged.		contextual discovery is discovery based on certain criteria such as geography/domain
95	Pg 224	Chapter-8	8.2.4.3 Pt 57	The solution should be capable of error handling and auto resolution of dependencies within the workflow of network operation automation.	auto resolution will be rollback of configuration from OMS system.		Yes, your understanding is right.
96	Pg 210	Chapter-8	8.2.4.1 SDN Controller/EMS	19. The SDN-Controller/EMS supports monitoring and visualization of service SLA performance, including delay, packet loss, jitter, and bandwidth--200 Links	For the network performance management, shall we size it for 200 sessions? (assuming 1 session per link)	Clarification	1 session per link.
97			Point No. t	Bidder/OEM can also leverage existing Network Management system/SDN/EMS deployed in RailTel in proposal. In case if the cards/modules/licenses in the existing system is proposed, OEM shall provide Undertaking for long term support for 8 years for all existing components irrespective of End of Life of the existing system. Hardware/Software required for such up gradation shall be included in price bid.	Kindly confirm this clause is applicable of Hardware ?		Tender condition is very clear.
98		Point No. J Technical Capability-2	4.A.14.1	Bidder has successfully commissioned/managed and working satisfactorily of OSS/SDN-Controller/U NMS/NMS/EMS/VMS/Network monitoring System for IP/MPLS/GPON (OLT/ONT)/End points/DWDM/Switch Network with 2700 Nodes (during last 07 (seven) years, ending last day of month previous to the one in which tender is invited) in any Government department or Public Sector Units or reputed Telecommunications company (TELCO) or any company (having average annual turnover of Rs 500 Cr and above in last 3 financial years excluding the current financial year). Note: For average annual turnover of Rs 500 Cr and above in last 3 financial years bidder have to submit the CA certificate having UDIN.		Please consider endpoints experience as Lead Bidder/OEM.	May please see the Corrigendum-III
99	231	8	8.2.5.2	Minimum 20 Nos of User Licences to Provided.	Railtel has mentioned the minimum number of licenses required. Please provide the exact number of licenses required for GIS tool.		May please see Corrigendum-III
100	58	4	4.A.4	Phase-wise Delivery/Implementation timelines	As per our understanding, GIS system will be the Single source of truth for inventoring the data of Passive infrastructure and will start being collected from the initial phase. Active element also need to be integrated with GIS as well. Therefore We Suggest you (Railtel) implement the GIS tool from Phase 1 instead of commencing it in Phase III.		May please see Corrigendum-III
101	230	8	8.2.5.2	GIS Tool	We request Railtel to please clarify if there is a need to migrate existing fiber data, If Yes please specify the data format.		Existing fiber data to be migrated to GIS tool using KML/Shape files.

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102	Page No 13		Point D	Bidder has to quote single make for OSS application as defined in the Tender (Technical requirement of Chapter-8). Against eligibility requirement (Point 3 of Clause 4.A.14), OEMs are allowed to meet their eligibility criteria through single or multiple Supply Orders/POs and Satisfactory working certificates in the name of OEMs or their System integrators issued by Government/PSU/Telecom Service Provider/Public Listed company having average annual turnover of Rs 500	Kindly add single or multiple Supply Orders/POs and Satisfactory working certificates in the name of OEMs or their System integrators issued by abroad Organisation	Kindly ammend as "OEMs are allowed to meet their eligibility criteria through single or multiple Supply Orders/POs and Satisfactory working certificates in the name of OEMs or their System integrators issued by Government/PSU/Telecom Service Provider/Public Listed company/abroad organisation "	OEM eligibility requirement is eloberated in detailed under clause no. 4.A.14.2 of Tender document. Against OEM eligibilty Certificate from abroad organization also acceptable.
103	Page no. 16		Schedule of Requirement (SOR) Point t	Bidder/OEM can also leverage existing Network Management system/SDN/EMS de- ployed in RailTel in proposal. In case if the cards/modules/Licenses in the existing system is proposed, OEM shall provide Undertaking for long term support for 8 years for all existing components irrespective of End of Life of the existing system. Hardware/Soft-ware required for such up gradation shall be included in price bid.		Kindly provide the details of AMC/support /EOL details of existing setup for 8 years support	Tender condition is very clear.
104	Page no 16		Schedule of Requirement (SOR) Point u	Compliance for procurement of Telecommunication equipment from trusted source : Department of Telecommunication (DOT) notification no. 20-1236/2021-AS-I Dated: 30.03.2021 regarding procurement of Telecommunications equipment from trusted source shall be applicable to this tender. Tenderer shall obtain certificate from concerned department of Government of India as defined in above mentioned notification as defined in above mentioned notification.	Is this clause applicable for software as well		May please refer guidelines issued by DOT regarding procurement of Telecommunications equipment from trusted source.
105	Page 23		Screen Layout	The screen layouts and functions of the EMS to which the RailTel is connected shall be the same as though a direct connection were being used		Kindly elaborate the diagram in details	Diagram in Tender document is very clear.
106	Page 23		EMS	EMS that Purchaser chooses to use with relatively little duplication of effort put into creating the initial EMS interfaces.		Kindly specify EMS make & model	Kindly refer the Annexure-IV under chapter-7 of tender document.
107	Page 31		3.A.1.7.4	Bidder will provide OEM of OSS Professional Support till issuance of Phase-I , Phase-II ,Phase III Provisional Acceptance Certificate. This OEM professional Support will help to stabilize the OSS and associate software applications and will successfully complete the acceptance as defined in clause 3.B.5 of the Tender document.		Request to consider /add OEM certified	Tender condition is very clear.
108	Page no 234		8.2.7 Hardware Specifications	The required Server, Storage , Backup and SAN switches should be from same OEM.	Bid process specifies only two OEMs for SAN switches, it can indeed limit the number of potential bidders, potentially affecting competition and pricing. This clause restricts for Server/storage/Backup and SAN Switched for specific OEMs also.Above Clause is specific to ONE OEM .	Allow for equivalent products from other OEMs that meet the same standards or performance criteria. This could increase the pool of bidders while maintaining the required quality and performance.	May please see Corrigendum-III
109	Page no. 34		8.2.7 Server Specifications	As per RFP in Server specification International Certificates like EN 62368/UL62368/ EMC standard /EN IEC 6300 required		In alignment with the Government of India's Make in India initiative, kindly allow MII Server product with Standard certificates like BIS / ISO 9001/ISO/IEC 27001/MI certificate	Equivalent standards of India for MII products is also acceptable.

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110	77	4	4.A.14.1 Eligibility Criteria Requirements for Bidders:	(i)- Technical Capability-Certification: The bidder must have following Certificate at the time of bidding, i. ISO 9001:2015 ii. ISO 20000-1: 2018 or latest iii. ISO 27001: 2013 or latest iv. CMMI Level 3 or above	<b>Request to amendment as:</b> The bidder must have <b>any three</b> of the following Certificate at the time of bidding, i. ISO 9001:2015 ii. ISO 20000-1: 2018 or latest iii. ISO 27001: 2013 or latest iv. CMMI Level 3 or above	This may increase the number of participants who those are actually providing similar services	No change it will be as per tender document.
111	84	4	4.A.14.3- Eligibility Credentials and Verification	4.A.14.3.3- The tenderers shall submit a notarized affidavit on a non-judicial stamp paper stating that they are not liable to be disqualified and all their statement/documents submitted along-with bid (including documents submitted by OEMs) are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as Form no. 4 (Chapter-6, Section-I). NON-SUBMISSION OF AN AFFIDAVIT BY THE BIDDER SHALL RESULT IN SUMMARY REJECTION OF HIS/THEIR BID. And it shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document. It will not be obligatory on the part of Tender Committee to scrutinize beyond the submitted document of tenderer as far as his qualification for the tender is concerned.	<b>Request to amendment as:</b> 4.A.14.3.3- The tenderers shall submit a notarized affidavit on a non-judicial stamp paper stating that they are not liable to be disqualified and all their statement/documents submitted along-with bid (including documents submitted by OEMs) are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as Form no. 4 (Chapter-6, Section-I). NON-SUBMISSION OF AN AFFIDAVIT BY THE BIDDER SHALL RESULT IN SUMMARY REJECTION OF HIS/THEIR BID. And it shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document. It will not be obligatory on the part of Tender Committee to scrutinize beyond the submitted document of tenderer as far as his qualification for the tender is concerned.	To bring the more credentials of OEM	No change it will be as per tender document.
				The RailTel (RCIL) reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the RailTel (RCIL), make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification by the RailTel (RCIL) shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the railway there under. In case of any wrong information submitted by tenderer, the contract shall be terminated. Performance Guarantee (PG) and Security Deposit (SD) of contract forfeited and agency barred for doing business on RailTel (RCIL) for 5 (five) years.	The RailTel (RCIL) reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the RailTel (RCIL), make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification by the RailTel (RCIL) shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the railway there under. In case of any wrong information submitted by tenderer, the contract shall be terminated. Performance Guarantee (PG) and Security Deposit (SD) of contract forfeited and agency barred for doing business on RailTel (RCIL) for 5 (five) years.  For all compliances of technical requirements and specification mentioned in this section, the term 'OEM' can be interpreted as either the Original Equipment Manufacturer or its authorized partner.		
112	234	8	8.2.7 /8.2.7.1 (Server)	Supported CPU	Request to change Up to two 4th Generation Latest Intel®Xeon® / AMD EPYC Scalable processors with up to 40 cores per process	Railtel being a technology adopter always chosen a latest technology and asked changes are inline with latest technology trend and Wider participation.	May please see Corrigendum-III

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113	234	8	8.2.7 / 8.2.7.1 (Server)	Configured CPU	Request to change 2*32 cores @ 2 GHz, 48 MB Cache(Gold 6430 / AMD EPYC 9334) or better OR 2*32 cores @ 2 GHz, 48 MB Cache or better	Request to change Processor number as per 4th / latest generation.	May please see Corrigendum-III
114	234	8	8.2.7 / 8.2.7.1 (Server)	Memory Slot	Request to change Up to 24 x DDR4 RDIMMs/LRDIMMs	Every Processor OEM has its own architecture, request you to modify this clause for wider participation.with Upto 32x DDR4 RDIMMs/ LDIMMs Only INTEL will Qualify. Request to Amend as Upto 24 x DDR4 RDIMMs /LDIMMs ( Intel/AMD Both will Qualify & meet your ongoing requirement as per memory configured required clause)	May please see Corrigendum-III
115	234	8	8.2.7 / 8.2.7.1 (Server)	Memory Configured	Request to change 32 GB*8 or 64 Gb*4 populated with 256 GB RDIMMs 4800 MT/s	Being a latest Technology adoption organization, request to modify memory speed 4800MT/s	May please see Corrigendum-III
116	GTC	4.A.11	Liquidated Damages- Time if of Essence	The timely delivery is the essence of this tender. Liquidated damages will be applicable at the rate of half percent per week or part thereof for undelivered portion of SOR subject to a maximum of 10% of the cost of Purchase order/LOA for any reason whatsoever attributed to failure of bidder. NICI will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.	<del>The timely delivery is the essence of this tender.</del> <b>The supplier will deliver the goods within a reasonable time frame.</b> Liquidated the damages will be applicable at the rate of half percent per week or part thereof for undelivered portion of SOR subject to a maximum of 10% of the cost of Purchase order/LOA for any reason whatsoever attributed to failure of bidder. NICI will have the right to cancel the order, place order on alternative source besides levying the liquidated damages as above.	While we agree in principle, time is of essence as such creates additional obligations for the service provider and hence suggest deletion.	No change, It will be as per tender document.
117	GTC	4.A.42	Limitation of Liability- Excluded Losses	The Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser; and	The Supplier shall not be liable to the Purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, <del>provided that this exclusion shall not apply to any obligation of the Supplier to pay liquidated damages to the Purchaser.</del>	Suggest deletion	No change, It will be as per tender document.
118	GTC	4.A.31	Termination	New Insertion	Additional clause to be included: Supplier may terminate for cause with 15 days notice in case of non payment by Purchaser.	New Insertion	No change, It will be as per tender document.
119	GTC	4.A.42	Limitation of Liability- Unlimited Liability Events	The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to any obligation of the Supplier to indemnify the Purchaser with respect to intellectual property rights infringement.	The aggregate liability of the Supplier to the Purchaser, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, <del>provided that this limitation shall not apply to any obligation of the Supplier to indemnify the Purchaser with respect to intellectual property rights infringement.</del>	Suggest deletion	No change, It will be as per tender document.

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120	COM MERCIAL TERMS & CONDITIONS	4.A.32	Risk & Cost	If the contractor fails to deliver the equipment or honour the contractual commitment within the period fixed for such delivery in the contract, the Purchaser may terminate the LOA/contract in whole or in part, the Purchaser may proceed to purchase, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered at no risk and cost to contractor. However, Performance Bank Guarantee shall be encashed. The failed bidder shall not be permitted to take part in the tender for balance work. The Maximum Liability of bidder to any Loss/Damages to RailTel including Liquidity Damages and Performance Guarantee shall be limited to 100% of Value of contract.	Request you to modify the clause of Risk & Cost as given below: If the contractor fails to deliver the equipment or honour the contractual commitment within the period fixed for such delivery in the contract, the Purchaser may terminate the LOA/contract in whole or in part, the Purchaser may proceed to purchase, upon such terms and in such manner as it deems appropriate, goods similar to those undelivered at no risk and cost to contractor. <del>However, Performance Bank Guarantee shall be encashed.</del> The failed bidder shall not be permitted to take part in the tender for balance work. The Maximum Liability of bidder to any Loss/Damages to RailTel including Liquidity Damages and Performance Guarantee shall be limited to 100% of Value of contract.		No change, It will be as per tender document.
121	COM MERCIAL TERMS & CONDITIONS	4.A.8.7	Dedicated Support Engineers	In addition to the above penalty for breach of the SLA parameters, No payment for the month would be made for all service under a Section, where the down time observed for more than 20% of the installed solution.	Request you to modify the cap as given below : In addition to the above penalty for breach of the SLA parameters, No payment for the month would be made for all service under a Section, where the down time observed for more than <del>20%</del> 25% of the installed solution.		No change, It will be as per tender document.
122	COM MERCIAL TERMS & CONDITIONS	4.A.8.6	Penalty	Penalties shall be calculated and is to be deducted from the Annual Maintenance Charges on quarterly basis. Overall penalty in a quarter shall not exceed 15% of the due amount of the quarterly AMC work executed by the Bidder	We request you to pl reduce the penalty to 10% of the quarterly AMC work executed by the bidder as it is a standard being followed in government RFP/Tenders.		No change, It will be as per tender document.
123	COM MERCIAL TERMS & CONDITIONS	4.A.14.1	Eligibility Criteria Req	Documents Required: End user certificate successfully commissioned and working satisfactorily certificate.	As we have executed NDA for our projects or we have entered in confidentiality with our customer(s) therefore we request you to pl modify the Documentation required for the Technical Capability 2 is given as under: End user certificate successfully commissioned and working satisfactorily certificate. OR Bidder can also submit CA certificate giving the project details.		May please refer clause no. 4.A.14.3.2 of tender document.
124	19	3	3.A.1.2	3.Provide Graphical representation of topology of nodes and links in multi-dimensional (technology & administrative) and multi layered representation. Provide creation of resource inventory of physical and logical network components.	Graphical representation of topology map refers to hierarchical view/representation of the associated entities (such as customer, service and resources) . Kindly confirm	Tehncial Clarity for preparation of solutoin	Clear Representation covering Hieratichal view with association is OK.
125	21	3	3.A.1.2	10.Provide Management Information Reports on Capacity Utilization, Service Quality etc	capacity utilization/Service quality KPI indicators are supported or not at EMS/SDN controller.	PM reports/Dashboards are preapared based on raw information received from EMS.	capture OSS Capability, subject to data availability from underlying EMS/mediation/controller.
126	24	3	3.A.1.3.4	Dimensioning Details for Hardware & Software Sizing.:Events Per Day 1 million (20% of event should be from syslog)	Need to understand source of sys-log and the life cycle of data captured with in that log. Kindly provide details	Since OSS is integrated with SDN controller/mediation/EMS for FM and PM; need clarity on the source of sys-log events. Also, Please confirm if the ask is to store the Sys-log data at a centralized location i.e OSS as Sys-log manager is separate centralized IT system.	No separate IT system. Source or interface to be same. No separate interface requires for sys-log

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127	31	3	3.A.1.7.4	Bidder will provide OEM of OSS Professional Support till issuance of Phase-I , Phase-II ,Phase III Provisional Acceptance Certificate. This OEM professional Support will help to stabilize the OSS and associate software applications and will successfully complete the acceptance as defined in clause 3.B.5 of the Tender document.	Please confirm System will go live phasewise ? Phase1 after PAC will go live and go in maintenance support ?	Implementation clarity	As per tender
128	186	8	8.2.2.	Service Assurance:11.Single Pane of Glass for all network vendors and technologies, connecting network and service layers, supporting an intuitive workflow UI and engines that guides to root cause analysis and service impact analysis.	We believe this is requirement on the Customer portal/Dashboard for giving single view of all underlying system to external world/users.	Technical solution clarity	As per tender.
129	189	8	8.2.2	Service Assurance: 35.The system must implement a mechanism for reporting data layer problems for missing data or data quality errors. Roadmap is also acceptable and it should be implemented before Provisional Acceptance certificate( PAC) with no cost to RailTel.	Does this requirement mean resync of the data ? It depends on underlying network EMS/Controllers etc will support resync.	Technical solution clarity	Resync of data [ periodically or missed data] to be supported by OSS if EMS or Data controllers support it.
130	191		8.2.2.1	4.Geo-views with outputs of analytics boards, representing KPIs information on the map. Different colour codes to distinguish status of different elements.	We believe this is requirement on the Customer portal/Dashboard for giving single view of all underlying system to external world/users.	Technical solution clarity	OK. In addition, OSS to be used to see details/RCA.
131	28	Chapter 3	3.A.1.4 OSS Solution Implementation Phases	The Project Phases are as follows-...	Kindly confirm if the Phase 1 covers only Cisco for IP/MPLS i.e, Non-Cisco SDN NE will be managed in phase 3 ?	Technical solution and scope clarity	As per tender
132	28	Chapter 3	3.A.1.4 OSS Solution Implementation Phases	The Project Phases are as follows-...	Kindly confirm that the scope of Optical domain is assurance only	Technical solution and scope clarity	Yes. May please refer Corrigendum-III.
133	21	Chapter 3	3.A.1.2	3. Provide Graphical representation of topology of nodes and links in multi-dimensional (technology & administrative) and multi layered representation. Provide creation of resource inventory of physical and logical network components.	By this clause, we believe that based on discovery the automated resource inventory need to be created. Pls confirm	Technical solution and scope clarity	Yes
134	21	Chapter 3	Point 8 Key Objectives of OSS Solution	8. Provide Auto Trouble Ticket assignment to respective NOC/Field Support Teams based on correlated Event and Alarm based on parent child relationships.	Ticket assignment is part of TT system. Pl confirm	Technical solution and scope clarity	Yes. Ticket creation will be done based on alarms received at OSS.
135	22	Chapter 3	3.A.1.3.2 EMS/NMS Integration	scope of the commands that their OSS is capable of sending to EMSs and network elements, particularly with regard to supporting provisioning functionality solution communications mechanisms shall be open enough that the system will be able to communicate in the future with any EMS	OSS will be integrated to SDN controller/EMS/Mediation only , and will send the commands to SDN controller/ EMS/ Mediation which in turn issue the commands towards EMS/NE's- Pls confirm	Technical solution and scope clarity	Please refer to architecture in tender
136	29	Chapter 3	3.A.1.4 OSS Solution Implementation Phases	GIS System [phase table]	Integration of GIS system is required with fulfilment only. Pls confirm.	Technical solution and scope clarity	Integration will be with Fulfillment and Inventory solution
137	23	Chapter 3	3.A.1.3.4 Dimensioning Details for Hardware & Software Sizing.	DR : YES	We believe its optional if the local HA is there for Gurugram	Technical solution and scope clarity	Yes.
138	31	Chapter 3	3.A.1.7.4	Bidder will provide OEM Professional Support till issuance of Phase-I , Phase-II ,Phase III Provisional Acceptance Certificate.	Please confirm System will go live phasewise ? Phase1 after PAC will go live and go in maintenance support ?	Technical solution and scope clarity	As per tender

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139	31	Chapter 3	3.A.1.8	Design, Installation, Testing, Commissioning and Integration, Trial Run and Commissioning of System- Trial run of the Network/system	By Trial Run we understand the duration after the respective Phase PAC and before FAC. Kindly confirm	Technical solution and scope clarity	Yes
140	67	Chapter 4	4.A.8 Service Level Agreement (SLA) and Penalties after issuance of PAC		Please share SLA details during support w.r.t Ticket category - Critical, Minor, Major..	Technical solution and scope clarity	Standard SLA to be supported. with response to Critical should be 15 min with workaround in 6 hours.
141	191	Chapter 8	8.2.2.1 (14)	The tool shall support a GIS for visualization	As there is existing GIS as per RFP, the visualization will be supported by GIS. Pls confirm	Technical solution and scope clarity	Yes. Separate requirement of GIS is part of tender.
142	196	Chapter 8	8.2.2.3+D28 (1)	Inventory/Topology should be integral part of the solution and should take feed from existing Orchestration/Fulfilment system for reactive and pro-active monitoring of resources (Virtual & Physical) & services deployed by Orchestration system	Provide the details of virtual resources which are a part of the network	Technical solution and scope clarity	Please confirm capability of OSS. For the current scope, resources details are covered in Tender.
143	197	Chapter 8	8.2.2.3 (10)	The solution should support representation of end-to-end view for services and paths using Topology Maps and Geographical Maps.	Graphical representation of topology map refers to hierarchical view/representation of the associated entities (such as customer, service and resources) . Kindly confirm	Technical solution and scope clarity	Clear Representation covering Hierarchical view with association is OK.
144	197	Chapter 8	8.2.2.3 (11)	The solution should support toggling of views between Topology Maps and Geographical Maps.	Graphical representation of topology map refers to hierarchical view/representation of the associated entities (such as customer, service and resources) . Kindly confirm	Technical solution and scope clarity	Clear Representation covering Hierarchical view with association is OK.
145	200	Chapter 8	8.2.2.4 (25)	The vendor shall rate the compliance for each of the OWASP Top 10 measures to mitigate web attacks. ( <a href="https://www.owasp.org/index.php/Main_Page">https://www.owasp.org/index.php/Main_Page</a> )	Pl clarify what is meant by "vendor shall rate the compliance"	Requirement clarity	As per tender
146		Generic			Is Migration is in the scope ? Or it will be only NE data availability [ one time during startup] as basic migration. Advance migration ==>In case of customer level services definition migration, it will be complete service instance migration activity.. Kindly clarify	Technical solution and scope clarity	NE availability in the system, during startup [ Basic migration] is ok.
147		Generic			Will there will be remote support available for Prod and Pre-prod system for SMEs to support during implementation phase to bring better GTM timelines and expertise, efficiency ?	Technical solution and Implementation clarity	Access during support phase can be considered. During implementation phase, limited access can be provided.
148	23	Chapter 3	ing Details for Hardware	Polling Interval 5/15/30/60	We believe this polling interval is applicable for EMS/Mediation/Controller. From OSS point , the polling interval will be uniform for HW dimensioning point.  The Granularity depends on capability of EMS/Mediation/Controller polling capability.  We recommend to that OSS vendor should qualify the requirement from capability point and keep the polling interval uniform to be min 30 and max 60.	Simplification, Uniformity of the Granularity	Consider 60 Min Granularity as uniform value. System should be able to scale [ Additional HW and services], if the granularity changes.
149	141		FORM NO. 6 - PROFOR A FOR "NI EVIATION CO P IANCE UN ERTAKING	4. We will also ensure our unconditional compliance of all the terms and conditions as mentioned in the Tender document including all corrigenda and TEC specifications.	Please share the details of TEC GR requirements that is being referred to.	clarification w.r.t TEC	Consider support for NSDTS and MTCTE as applicable.

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150	52	Chapter 3	3.C.1 Scope of Training	Tenderer shall train 60 (Man Weeks) personnel in four batches of RailTel/Engineer in all aspects of the system. Training will be provided by OEM/OEM authorized training partner.	Please confirm, 1. Batch Size of Enginners?	Clarification to plan training program.	8-10 Engineers
151	52	Chapter 3	3.C.1 Scope of Training	The training course shall be designed to train the trainees in all aspects of System engineering, equipment operation, installation and functional details, theory of operation of system, trouble shooting and familiarization with the system at component level. All equipment used for training shall be identical to those quoted and supplied for site installation in hardware and software versions.	Training Normally done on Lab Rnvironment , However Actual deployment happens in Production environment Here expectation is Traing env identical to that of Production. Kindly remove this requirement as it will result into new environment setup	Clarification to plan training program	Lab environment with same functionalities and features are OK.Vendor to share Structured Training program with schedule as part of response.
152	52	Chapter 3	3.C.2 Timelines for Training and Development:	The training course shall be designed to train the trainees in all aspects of System engineering, equipment operation, installation and functional details, theory of operation of system, trouble shooting and familiarization with the system at component level. All equipment used for training shall be identical to those quoted and supplied for site installation in hardware and software versions.	As the training will be done in parallel to deployment[ implementation] of phases, we can do the training via predefined inhouse Academy [ Online and offline classes]. These will be same from functionality wise, the software versions may differ. Please advice -If the training need to be done on the preproduction then requesting for Phase implementation completion so that training can be rendered thru it by delivery team only [ no professional and structured training] -Or else, we use professionally designed training rendered via web and/or classroom trainings that may have different versions [ <b>although same functionalities and features</b> ].	Any new deployment is done with newer releases [ due to normal Software development life cycle adherence]. The training programs may not have newer releases in their labs.	Lab environment with same functionalities and features are OK.Vendor to share Structured Training program with schedule as part of response.
153	52	Chapter 3	3.C.2 Timelines for Training and Development:	Phase -1 : Completion of training on OSS, SDN Controller for IP-MPLS and other proposed systems of Phase-1 including training on SDK/API of all proposed system. ---20 Man Week ---- D + 6M	As per section 4.A.4- Phase1 timelines is D+12 M , However Training is expected in D+6 M ,Accoding to statndard delivery model Training should follow the Project completion , so that Operation/Customer Persons understand the delivererd system , Suggest to have Training timelines modified to D+15 Month	To align the training timelines and making the training environmnet available [ preprod]	As per tender
154	52	Chapter 3	3.C.2 Timelines for Training and Development:	Phase -2 : Completion of training on OSS, SDN Controller for DWDM and other proposed systems of Phase-2 including training on SDK/API of all proposed system---20 Man Week -----D + 15M	Similar to above , Training timeline of Phase2 should be D +23M	To align the training timelines and making the training environmnet available [ preprod]	As per tender
155	52	Chapter 3	3.C.2 Timelines for Training and Development:	Phase -3 : Completion of training on OSS, Device management and other proposed systems of Phase3 including training on SDK/API of all proposed system. ----- 20 Man Week -----D + 25M	Similar to above , Training timeline of Phase2 should be D + 35 M.	To align the training timelines and making the training environmnet available [ preprod]	As per tender
156	38	Chapter 3	3.B.1.1	Waiver of Part or whole of type tests can be considered if proof of having done the tests by independent body or PTT authority is submitted. 1.0 Pre-commissioning test (after installation) for total integrated system. 2.0 Site Acceptance Testing (SAT) 3.0 Trial Run	is Trial run test waived off , if we can submit the Test result sheet in Nokia R&D lab	Clarification on the PoC	As per tender
157	15	Chapter 4	4.A.47.5	POC/Demonstration should be completed within 45 Days from the date of opening of bid. In case, bidder fails to demonstrate all the parameters of POC/Demonstration suc-cessfully in first attempt, bidder shall demonstrate remaining parameters of POC/ Demonstration within 7 days of first attempt. Please note that maximum 2 attempts will be given to demonstrate all the functional parameters during POC/Demonstration stage as mentioned in Annexure-I of Chapter-7.	1. POC can we done with simulators or with sample data? 2. Can two different setups be used to cover the demonstrations ? It may be possible that all cases are not implemented for a given cutomer .	Clarification on the PoC	1. Yes. 2. Yes within 45 days.

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				Clause, if any			
158			General		Please share the S/W services SLA , like for Critical, Major, and Minor faults	Support clarification	Standard SLA to be supported. With focus on response to Critical should be 15 min with workaround in 6 hours For Major initial response should be 6 hours and workaround solution in 2 days.
159	166	8	8.1.9	OEMs/Authorized service Partner should have 24*7 TAC support in India. Relevant document in support of the same shall be submitted	1) Support expected form OEM/ASP is on 24x7 or 8x5 basis,also please clarify whether support teams need to provide technical assistance or perform operational activities as well		Tender condition is very clear.
160	220	8	8.2.4.3	General	1) Please provide the details of the existing systems e.g BSS,UNMS,CRM... 2) Please clarify whether all the systems to be integrated are under active support from respective OEM's 3) We understand integration with legacy networks can be a momentous task,and considering the ever changing technology shifts we request Railtel to clarify the backward integration expectations with legacy networks		Detail of Existing tools is as under: (i) ERP: Oracle E-Business version R12.2.11 (ii) HPSM: 9.60.0025 service manager. (iii) GIS: to be proposed by bidder All existing tools/systems supports open standard protocols and APIs for integration. And required support will be arranged by Railtel for integration from respective system OEM.
161	186	8	8.2.2.	The system must be cloud ready and supporting micro-services architecture. The system should also support vertical and horizontal scaling on the flow. Roadmap is also acceptable and it should be implemented before Provisional Acceptance certificate( PAC) with no cost to RailTel.	Request to clarify whether OSS needs to be deployed on Cloud or On-Prem Solution is expected		Tender condition is very clear. OSS to be deployed On-Prem Solution using micro-services architecture.
162	General	General	General	General	We understand as it will be a multi OEM environment, Railtel will facilitate with any discussion/support to be extended from the existing OEM's and Bidders need not to consider any financial implications for the OEM onboarding		Any required support will be arranged by Railtel for integration from respective system OEM.
163	230	8	8.2.5.2 A. GIS Tool should	i) The solution should be web and mobile-based Fiber Inventory Management system, deployable both on-premises and in secure public/private cloud environments.	Request to provide the number of concurrent users for desktop, web, and mobile users under Fiber Inventory Management System (GIS Tool).	As per standard industry business process framework, generally all the field data being updated through web or mobile applications are validated and approved by the desktop administrator using various visualization, enhancement, editing & analysis tools available in the desktop environment prior to posting to the master database. This will restrict erroneous data posting into the RDBMS.	May please see Corrigendum-III
164	230	8	8.2.5.2 A. GIS Tool should	iii) Support open-source databases like PostgreSQL	Data Base Place a very important role in overall performance of GIS application and to support heavy GIS data like Video of Installation on FO Cable along with data generated with heavy GIS Layers for coordinates , route map etc . Our Observation has been that Open data base doesn't work quite efficiently in mid to long term. We request you to allow Enterprise level database to be consider for the project, which in turn will ensure the stability and performance of the platform .		May please see Corrigendum-III

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				Clause, if any			
165	230	8	8.2.5.2 A. GIS Tool sho	iv) Use cloud-hosted map platforms like Google Maps with high-resolution satellite imagery, terrain view, and Street View where available	It is understood that the cloud-hosted map platforms like Google Maps with high-resolution satellite imagery, terrain view, and Street View etc shall be made available for integration with the Fiber Inventory Management System (GIS Tool). Kindly confirm.	Certain cloud-hosted map platforms are available on a chargeable / subscription basis, and the same can't be considered under the GIS tool	Google Map licenses will be arranged by RailTel in case required.
166	230	8	8.2.5.2 A. GIS Tool sho	ix) Minimum 20 Nos of User Licences to Provided.	Understand that 20 Nos of desktop Fiber Inventory Management System (GIS Tool) User licences shall be provided along with access for web and mobile users. Please specify the users for web and mobile.	The tool can be configured for the specific users and the required IT hardware infrastructure can be planned based on number of users.	May please see Corrigendum-III
167	231	8	8.2.5.2 B. GIS Tool sho	h) The Application shall have Voice command features to enable placement of network entities from field.	Voice-based network creation function may kindly be asked as optional / omitted.	We suggest that there are chances for capturing erroneous data through voice-based network creation in view of multiple languages & dialects over pan India, the voice-based network creation functionality may not give the desired results. Therefore, the voice-based network creation in mobile application may kindly be removed.	May please see Corrigendum-III
168	231	8	8.2.5.2 C. GIS Tool sho	j) suggest alternate path using google API	Understand that Google APIs shall be provided for performing the desired functionality.	Google API is available on a chargeable / subscription basis and the same can't be considered under the GIS tool	Google API licenses will be arranged by RailTel in case required.
169	105	4	4.A.47.1	All Bidders offering their Solutions are required to conduct POC/Demonstration immediately after bid opening time (as mentioned in BDS).	As part of POC, request to allow the demonstration of applications / tools already developed for other clients readily available that are more or less meet the RFP TOR.	The specific RailTel requirements as mentioned in the RFP are required to be developed specifically as part of the project execution. Availability of a similar tool covering all the functions asked in the RFP may not be possible with the bidders.	POC for GIS not required, for further detail May please refer chapter-7 of Tender document.
170				General	Request to extend bid submission date at least for two weeks from the current bid submission date of 9 <sup>th</sup> September 2024	Considering the complexity of the tender components, request to provide some more time for bidders to comprehensively prepare and submit the bid.	May please see Corrigendum-III
171	143	CHAPTER- 6 - FORM (S)/PROFORM A (S)	FORM NO. 7 - OEM'S UNDERTAKING	6	SI/We have offered Hardware and Software having End of Life (EOL) more than 8 years and End of Sale (EOS) more than 4 years from the date of opening of this Tender.	<b>Revised Clause:</b> SI/We have offered Hardware and Software having End of Life (EOL) more than 5 years <b>Reason:</b> Request to revise the clause as per above for wider participation. We (HPE) has issue with this clause as it is restricting us to participate in this bid.	May please see Corrigendum-III

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				Clause, if any			
172	240		8.2.7.3 Backup Solution	1	The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose-built backup appliance should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup and VTL backup simultaneously via NFS, CIFS, FC, OST/Catalyst/NDMP protocols. All the protocols should be available to use concurrently with global deduplication for data ingested across all of them.....The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose-built backup appliance or disk base solution should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup or backup to VTL via NFS, CIFS, FC, OST/Catalyst/NDMP protocols. All the protocols should be available to use concurrently.	<p><b>Revised Clause:</b> The proposed backup solution must provide efficient data reduction by using variable block length deduplication at the source as well as target side. Proposed purpose-built backup appliance should be able to interface with various industry leading server platforms, operating systems and Must support LAN/SAN based D2D backup or backup to VTL via NFS, CIFS, FC, OST/Catalyst/NDMP protocols. All the protocols should be available to use concurrently.</p> <p><b>Reason:</b> Request to revise the clause as asking for a general purpose disk based solution will discard the sanity of full proof backup solution.</p>	May please see Corrigendum-III
173			8.2.7.3 Backup Solution	3	The proposed purpose-built backup appliance should support SSD to help in superior performance support for Instant Access/ Restore of the protected virtual machine. Proposed purpose-built backup appliance or backup solution should be offered with mechanism of data protection against data loss in power failure scenario.	<p><b>Revised Clause:</b> The proposed purpose-built backup appliance should support SSD to help in superior performance support for Instant Access/ Restore of the protected virtual machine. Proposed purpose-built backup appliance should be offered with mechanism of data protection against data loss in power failure scenario.</p> <p><b>Reason:</b> Request to revise the clause as per above for wider participation as asking for a general purpose disk based solution will discard the sanity of full proof backup solution.</p>	it will be as per tender document.
174			8.2.7.3 Backup Solution	4	The offered purpose-built backup appliance should be sized appropriately for backup of front-end data of 30 TB (20% DB, 30% VM & 50% File System) as per below mentioned backup policies:	<p><b>Revised Clause:</b> The offered purpose-built backup appliance should be sized appropriately for backup of front-end data of 50 TB (20% DB, 30% VM &amp; 50% File System) as per below mentioned backup policies:</p> <p><b>Reason:</b> Request to revise the clause as point 5 of backup software license ask for 50TB front end capacity license.</p>	May please see Corrigendum-III

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175			8.2.7.3 Backup Solution	18	Bidder can offer either purpose built backup appliance or disk base solution as per the configuration given above.	<b>Revised Clause:</b> Bidder should offer only purpose built backup appliance as per the configuration given above. <b>Reason:</b> Request to revise the clause as per above for wider participation as asking for a general purpose disk based solution will discard the sanity of full proof backup solution.	it will be as per tender document.
176	24	3	3.A.1.3.4	Dimensioning Details for Hardware & Software Sizing	Request you to help clarify the difference between L2 VPN and VPLS , VPLS is a L2 VPN service		Tender condition is very clear
177	24	3	3.A.1.3.4	Dimensioning Details for Hardware & Software Sizing	Request you to help clarify the difference between L2 VPN and L2 VLAN.		Tender condition is very clear
178	24	3	3.A.1.3.4	Dimensioning Details for Hardware & Software Sizing	Request your help to clarify the difference between terminate service and delete service ?		Tender condition is very clear
179	184	8	8.2.1.4 Sync and Reconciliation	1. The solution MUST support the synchronization and reconciliation of network or other external data with the inventory data. The solution MUST be able to report and resolve the differences found at the entity and attribute level	Which are the external data to sync with ?		Solution should have capability to integrate the external data (Like CSV, Text).
180	184	8	8.2.1.4 Sync and Reconciliation	5. Currently used fixed line network data sources/NEs like CPEs, Service Edge Routers , Provider Edge Routers, DSLAMs, DHCP , EMS/NMS systems ,Inventory systems MUST be supported by the solution	Which are the data source and Inventory system?		Tender condition is very clear. Solution should have capability to integrate with inventory solutions.
181	184	8	8.2.1.4 Sync and Reconciliation	8. The solution MUST be able to sync and reconcile between multiple external systems and the inventory for the same piece of inventory information	A typical inventory solution rely only on one source for the same piece of information. The requirement is not clear.		Tender condition is very clear
182	185	8	8.2.1.4 Sync and Reconciliation	17. The solution MUST have configurable and customisable sync rules and algorithms	Request clarity on algorithms.		Sync and Reconciliation mechanism should be reconfigurable as per the RailTel requirement.
183	185	8	8.2.1.4 Sync and Reconciliation	19. The tool MUST support custom reconciliation rules/policies/algorithms	Request clarity on algorithms.		
184	197	8	8.2.2.3 Service and Inventory	2. For brownfield discovery, the solution should be able to discover and reconcile net-work resources from multiple domains, enrich the network data with secondary data sources, stitch resources across domains to create end-to-end service(s). It should have advanced features like contextual discovery, real time discovery on network configuration change events	Request to explain contextual discovery		contextual discovery is discovery based on certain criteria such as geography/domain.
185	197	8	8.2.2.3 Service and Inventory	5. The solution should manage physical, logical, virtual and services inventory	which virtual resources are in scope ?		Virtual means virtual Links.
186	197	8	8.2.2.3 Service and Inventory	8. The solution should store the stitched inter-domain multi-vendor end to end service topologies in a single graph-based inventory database (neo4j).	Request if service stitching and display of service topology can be scope without the need for graph based inventory database.		May please see Corrigendum-III
187	198	8	8.2.2.3 Service and Inventory	15. The solution shall be extendable to support network slice discovery and associate to-pology.	We believe this is a typo in considering current RFP scope, request exclusion of this clause.		May please see Corrigendum-III
188	204	8	8.2.3.1 Modelling Capabilities	14. The Solution should support the internal connectivity of containers or an equivalent alternative	We believe this is a typo in considering current RFP scope, request exclusion of this clause.		May please see Corrigendum-III

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189	204	8	8.2.3.1 Modelling Capabilities	17. The Solution MUST cover, though not be limited to, the following technologies: MEF, Ethernet, xDSL, IPv4, IPv6, MPLS, VPN, PDH, WDM, POM	We believe POM is meant to be PON, please confirm.		May please see Corrigendum-III
190	205	8	8.2.3.1 Modelling Capabilities	22. The Solution MUST offer Modelling of physical and logical inventory per controller	The meaning of "per controller" is not clear.		Controller means Mediation Layer.
191	205	8	8.2.3.1 Modelling Capabilities	23. The Solution MUST offer Modelling and stitching of services for each service type (IPMPLS - L2 VPN, L2 VLAN, L3 VPN, Multicast, VPLS, Internet; Optical - P2P DWDM 1G, P2P DWDM 10G, P2P DWDM 100G) The Solution shall provide 10 inventory reports per controller	Please help clarify the part "The Solution shall provide 10 inventory reports per controller"		
192	205	8	8.2.3.3 Discovery & Reconciliation	2. For brownfield discovery, the solution should be able to discover and reconcile net-work resources from multiple domains, enrich the network data with secondary data sources, stitch resources across domains to create end-to-end service(s). It should have advanced features like contextual discovery, real time discovery on network configuration change events.	Request your help : 1) To clarify which external data should be considered 2) To clarify what is contextual discovery 3) Inventory solution support real-time discovery		1) Solution should have capability to integrate the external data (Like CSV, Text). 2) contextual discovery is discovery based on certain criteria such as geography/domain. 3) is meant for on demand discovery.
193	206	8	8.2.3.3 Discovery & Reconciliation	5. The solution should manage physical, logical, virtual and services inventory	To clarify which virtual resources the customer is referring to		Virtual means virtual Links.
194	206	8	8.2.3.3 Discovery & Reconciliation	10. The solution shall be extendable to support network slice discovery and associate to-pology.	We believe this is a typo in considering current RFP scope, request exclusion of this clause.		May please see Corrigendum-III
195	13	2	Chapter-2, Schedule-B, "d"	"Bidder has to quote single make for OSS application"	We understand this means for a single functionality, only one OEM/make is to be proposed. Overall solution however can contain multiple OEMs. Request your clarifications.		Bidder has to quote a single make of OSS application (except mediation layer) for the module of Assurance, fulfillment, Inventory & discovery as defined in the chapter-3 & 8.
196	16	2	Chapter-2	In the specification wherever support for a feature has been asked for, it will mean that the feature should be available without RailTel requiring any other hardware/software/licenses. Thus, all hardware/software/licenses required for enabling the support/feature shall be included in the offer.	Please note many requirements are not well defined and open-ended (e.g. analytics, close-loop etc.) and may lead to a different BoQ by bidder based on the assumption made. It may also lead to over/under estimation of efforts based on assumptions/use-cases made. Request Railtel to either clearly define those use-cases and scenarios or allow bidder to quote with clearly laid assumptions.		Tender condition is very clear. Hardware sizing & implementation shall be done as per the use cases defined in PACs under clause no.3.B.5.
197	19	3	Chapter-3, 3.A.1.2 Overview of the Scope of Work	The offered system shall be provisioned/hosted on Primary Data Centre (DC) site at Gurgaon and a Disaster recovery (DR) site Secundrabad (if applicable).	We understand bidder can either offer solution with robust HA at one data center alone or offer a DC+DR solution at the discretion of bidder. Please confirm.		Tender condition is very clear.
198	19	3	Chapter-3, 3.A.1.2 Overview of the Scope of Work	Overview of the Scope of Work RailTel intends to implement a Centralized Operational Support System (OSS) with the strategic objectives of increased productivity, resolution efficiency and thus Customer Satisfaction. The proposed OSS shall integrate the Network Elements (NEs)/ EMSs/NMSs of the existing DWDM & IP-MPLS Network and future network expansions including Technologies like ASON, OTN, GPON, MPLS-TP and SDH etc.	Please clarify that ASON, OTN, GPON, MPLS-TP and SDH are out of scope for the current scope of this RFP. When they are introduced in future, additional BoQ, Services etc. will be required, and will be driven through a separate project scope.		Tender condition is very clear. Proposed OSS-Application should support Technologies like ASON, OTN, GPON, MPLS-TP and SDH etc. in future, in case required by upgrading the license/hardware/software.
199	21	3	Chapter-3, 3.A.1.2 Overview of the Scope of Work	Provides Software development Kit (SDK) or API for future provisioning framework modification/creation and also for adaptation for inventory, Fault Management, Performance Management	SDK are IPR and require specialized knowledge to use them to create adaptors etc. We however can provide APIs which can be used to access events/KPI and inventory data for any third party North-Bound solution to use them.		The OEM can offer either Software development Kit (SDK) or API for NBI.

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200	21	3	Chapter-3, 3.A.1.2 Overview of the Scope of Work	Provides Software development Kit (SDK) or API for future provisioning framework modification/creation and also for adaptation for inventory, Fault Management, Performance Management	Need sizing details of how many APIs (Calls/Day) of which solution will be consumed, to be able to estimate right-sized BoQ.		Software development Kit (SDK) or API shall be designed 10,000 calls per day.
201	22	3	Chapter-3, 3.A.1.3.2	The solution should Support of TMF API standards for fulfilment inventory & assurance (e.g. 641, 645, 633, 638, 639, 621)	TMF 621 is Trouble Ticket Rest API which we believe is already supported by existing HPSM application. Bidder/OEM has no role to play for TMF 621 in this RFP. Request your confirmation.		Tender condition is very clear. Ticketing system is not in this scope, however the integration is required with existing HPSM application for ticket generation.
202	22	3	Chapter-3, 3.A.1.3.2	EMS/NMS Integration	Based on our understanding/exploration of eco-system, finding one common EMS for all Non-Cisco devices, which does fault-collection, metrics-collection, configuration-management and provisioning-management, of RailTel is a challenge. We request Railtel to allow us to propose a solution, where some of the EMS functionalities expected are part of the OSS itself, and all the functionality expected are met through EMS+OSS together.		Tender condition is very clear.
203	22	3	Chapter-3, 3.A.1.3.2	EMS/NMS Integration	Need confirmation that provisioning related requirements are only for PE routers in RailTel eco-system.		It is clarified that the provisioning is required for IP-MPLS & Legacy devices through proposed mediation layer except existing Cisco SDN- Controller.
204	22	3	Chapter-3, 3.A.1.3.2	EMS/NMS Integration	Need confirmation that no provisioning related requirements are there for SDN ready devices.		this point is already clarified above
205	23	3	Chapter-3: 3.A.1.3.3	Integration with Existing Ecosystems	We understand that existing ecosystem are supported by their vendors and Railtel will make expert available for interface related discussions.		RailTel will facilitate necessary support from existing OEMs.
206	24	3	3.A.1.3.4	Dimensioning Details for Hardware & Software Sizing.	Raw/hourly/Daily we understand are meant for metrics.		Raw/hourly/Daily dimensions are meant for metrics only.
207	25	3	3.A.1.3.5	Hardware Requirements	We understand Pre-production of OSS solution setup required, please specify if it needs to be replica of production, or a much scaled down version of production? What about availability of EMS/SDN and other eco-system in pre-production solution from Railtel side?		The purpose of Pre- Production environment for the OSS solution is to validate the software functionality before releasing to production. The Hardware/software sizing may be done based on the solution requirement of OEM.
208	25-26	3	3.A.1.3.5	With 95% users loaded on the system the target response times are as given below	How does Railtel plan to test these loads, for bidder to prove these figures?		OEM/bidder should provide an undertaking for the compliance on the response time.
209	26	3	3.A.1.3.6	Databases	There are many contradicting requirements in this section, e.g. open sources to avoid vendor lock-in and commercially DB supported at the same time. Similarly scaling requirements etc. are not matching with the RFP ask. Our view is that RailTel has asked for functionality, and performance requirements, then this whole DB section is redundant. Allow vendors to choose DB which best meets product-requirements, functionality and performance requirements. Request if this whole section can be omitted to offer flexibility to bidders.		Please see Corrigendum-III
210	38-39	3	3.B.1.1	Test Categories	We understand these are applicable for HW equipment only and not applicable for OSS SW. Request your clarifications.		Applicable for hardware set up.
211	40	3	3.B.2	System Integration Testing	We understand these are applicable for MPLS HW equipment only and not applicable for OSS SW. Request your clarifications.		Please see Corrigendum-III

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212	49	3	D.10	Phase wise Acceptance Criterion	Is a syslog solution required for viewing/filtering? Or syslog to be used only for event?. Our understanding is that RailTel already has a syslog solution, which could be used for viewing syslogs. Request clarifications.		Syslog will be used for event generation, separate system for syslog is not required.
213	49	3	D.10	Phase wise Acceptance Criterion (Point #15)	BGP Monitoring is based on alarms generated by the equipment only, and OSS will play the role of displahing the alarm, and not that of generating alarms.		Tender condition is very clear.
214	49	3	D.10	Phase wise Acceptance Criterion (Point #16)	What is the integration goal of integrating SNMP Trap with Elasticsearch? SNMP traps are to be sent to OSS or Elasticsearch or both?. Does RailTel has this platform already available?		Tender condition is very clear.
215	49	3	D.13	Phase wise Acceptance Criterion	OSS will be a receiver of protocol alarms (OSPF, LACP, ERPS etc.) and display them, not a generator, and not through protocol procedures/primitievs, please confirm.		Tender condition is very clear.
216	49	3	D.13	Phase wise Acceptance Criterion	For DDMI, need to know the details of SFP vendor and interface provided by their monitoring solution to collect events. OSS will not be able to examine SFP memory map and generate events. SFP vendor monitoring module has to be monitor SFP and provide alarm collection interface to OSS solution.		DDMI of a given SFP vendor will provide a alarm/event & same should be collected by OSS through SNMP.
217	50	3	3.B.5 --> D. Phase 3 --> 14. Customer Portal	Customer Portal	What is the expected number of users (total + concurrent) planning to access customer portal ?		Concurrent users for OSS will be 250 Nos. refer page no. 184 of tender document.
218	50	3	3.B.5 --> D. Phase 3 --> 15. GIS Tool	GIS Tool	What is the expected number of users (total + concurrent) planning to access GIS Tool ?		Please see Corrigendum-III
219	80	4	4.A.14.2	Eligibility criterion requirements of OEMs (Point #1) A. OEM shall have installed and commissioned Operation Support System (OSS)/Um-brella NMS consisting of Core IP-MPLS (Device capacity: 400Gbps) and Core DWDM (Device capacity: 400Gbps)	Existing customers do not mention capacity of their device capacity, due to business secret/value of the same. Also we do not see relevance of device capacity for the OSS system. Request you to relax/omit the criterion of mentioning device capacities.		Please see Corrigendum-III
220	80	4	4.A.14.2	Eligibility criterion requirements of OEMs (Point #2) A. OEM of SDN-Controller/EMS of IP-MPLS: The offered solution by the OEM from the same OEM should have: B. Experience of deploying SDN/EMS (Multi vendor)	Considering that this concept is still evolving and multi-vendor EMS/SDN eco-system with all requested functionalities is still not there, request your help to omit/relax these PQ for EMS/SDN Controllers.		Tender condition is very clear.No Change is required
221	80	4	4.A.14.2	End User (Government /PSUs/Telecom Service Provid- ers/Public Listed Company in India or Abroad) Satisfac- tory Working certificate for at least 12 months (during last 7 FY and current FY) as on date of opening of tender clearly mentioning the make & model number of the offered Hardware/Software.	For OSS software can manage any the make and model of the hardware. Can this specific ask be removed as it is more hardware specific than OSS software specific. Reference customers may have concerns disclosing the details of their network to this granularity.		Tender condition is very clear.No Change is required
222	105	4	4.A.47	Bidders must ensure that make and model of Software used in POC/Demonstration should be same as offered in their submitted bids.	Customer setups that we may plan, may not be at the latest version of software. Request RailTel to allow these setups to be at an earlier verions of the product.		Bidder/OEM can have leverage for Software version , However Bidders must ensure that make and model of Software used in POC/Demonstration should be same as offered in their submitted bids
223	158	7	Chatper -7: Test Case to demonstrate	Inventory - 1. B	Since the demonstration on a live other customer solution is also acceptable, we request if non-destructive cases only are included and cases like delete etc. are not included.		Bidder/OEM can have leverage for non-destructive cases in case of live customer. However futionalilty should be the demonstration as option in GUI.

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224	158-161	7	Chapter -7: Test Case to demonstrate	PoC Location	In order to expedite PoC, and provide complete coverage, we request: 1. Allow more than one Environment will be used to provide coverage. 2. Allow a combination of customer-environment and OEM-Lab for coverage 3. Allow for In customer environment, where some product versions may not be latest version (the one being proposed in bid) 4. The domain will be same IP-MPLS and Optical, however equipment vendors may be from different vendor and capacity.		Bidder/OEM can demonstrate of POC at Multiple location for different use cases in Multi-Vendor environment.
225	166	8	Chapter-8: 8.1.12	General Conditions	Finding one common device-management solution for all Non-SDN devices, which does fault-collection, metrics-collection, configuration-management and provisioning-management, of RailTel is a challenge. We request Railtel to allow us to propose a solution, where some of the device-management functionalities expected are part of the OSS itself, and all the functionality expected are met through "Device_Mgmt"+OSS together.		Tender condition is very clear.
226	172	8	8.2.1.1	67. The net latency time of the SOM application (from request receipt to sending response, minus manual tasks and response latency from external systems) SHOULD be less than 0.5 sec in 95% of related transactions.	Not sure about feasibility of this measurement being done, request RailTel to omit this requirement.		OEM should provide a undertaking for the software.
227	172	8	8.2.1.1	68. The SOM MUST be capable to handle: a) 2500 requests per day as Mean Day Value b) 1000 requests per day as Standard Deviation c) 4000 requests per hour in a Standard Busy Day d) 1500 requests per hour as Standard deviation among Busy Days"	Sizing value given here differs from sizing value given on Page 24. (Similar issue is there at service-activation values mentioned at page #181)		Please see Corrigendum-III
228	176	8	8.2.1.3	Service Activation	In many implementation service-activation is not separate from Service Provisioning and its subsumed within it. Service activation requirement mentioned are not relatable with RailTel use-cases of provisioning/activation. Request you to omit these requirements as they are subsumed within Service Provisioning.		service-activation and Service Provisioning may be treated as Service Provisioning requirement
229	184	8	8.2.1.4	7. The solution MUST provide easy integration points to the existing discovery system and external inventory systems.	Is there any existing discovery system ? Or Bidder/OEM has to bring their own discovery system.		Detail of Existing tools is as under: (i) ERP: Oracle E-Business version R12.2.11 (ii) HPSM: 9.60.0025 service manager. (iii) GIS: to be part of this Tender . (iv) Discovery :to be part of this Tender .
230	189	8	8.2.2.1	b) Trend analysis for Long term planning	Provide sizing details for how many KPI and on how many devices this feature is required.		100 Nos of KPI.
231	187	8	8.2.2	12. Closed Loop Automation – Trigger to self-healing workflow.	Kindly define the use case for Closed loop Automation, to estimate BoQ and efforts.		Use cases for Closed loop Automation should be 10 Nos

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232	192	8	8.2.2.1	29. The umbrella Performance Management system must be able to generate and for-ward alarms via SNMP northbound interface.	PMS, when it generate and TCE/TCA it does not use SNMP method, which is more common for equipments. Request you to omit, SNMP NBI requirement.		Please see Corrigendum-III
233	198	8	8.2.2.4	Security and Admin	Most of the requirements in this section call for a IAM (Identity and Access Management) solution. Does RailTel has an existing IAM which could be used, of would Railtel add this IAM as a separate solution module in SOR?		Tender condition is very clear.No Change is required
234	208	8	8.2.4.1	SDN Controller/EMS: A. SDN-Controllers/EMS (IP-MPLS) & Device management should work independently for fault & performance without any involvement of OSS Layer of modules/software appli-cations to manage the multivendor devices.	Based on our understanding/exploration of eco-system, finding one common EMS for all Non-Cisso devices, which does fault-collection, metrics-collection, configuration-management and provisioing-management, of RailTel is a challenge. We request Railtel to allow us to propose a solution, where some of the EMS functionalities expected are part of the OSS itself, and all the functionality expected are met through EMS+OSS together.		Tender condition is very clear.No Change is required
235	211	8	8.2.4.1	26. The SDN-Controller/EMS shall support BW Utilization monitoring for TE tunnels and pro-vide TE tunnel BW Utilization reporting: tunnel rates (minimum, maximum, and average) 27. The SDN-Controller/EMS must support flow-based quality monitoring (packet loss, jitter, and delay).	In general capability of proposed EMS would be depended on information shared by the device and its capability to provide this inofrmation to an external EMS. Please confirm of SDN ready devices in Railtel offer these metrics to an external EMS solution. (above is true in general for all capabilities that is expected from EMS)		RailTel will facilitate necessary support from existing OEMs.
236	211	8	8.2.4.1	37. SDN-Controller/EMS offered for IP/MPLS domain must ensure that: v. Re-sync to be supported for alarms	Re-sync capability at OSS+EMS depends on support for the same at device level. Request RailTel confirmation if these functionalities are availale at RailTel devices?		RailTel will facilitate necessary support from existing OEMs.
237	212	8	8.2.4.1	37. SDN-Controller/EMS offered for IP/MPLS domain must ensure that: v. The Interfaces supported by SDN-Controller/EMS shall be (at-least, may not be limited to)	We under this is the interface between EMS to OSS, request your confirmation.		Tender condition is very clear.No Change is required
238	212	8	8.2.4.1	38. Architecture	From this diagram we infer that EMS can use either of these openconfig/SNMP/RestAPI etc. EMS choice will depend on what is supported by SDN devices underneath. Can we assume that all these interfaces are supported by SDN devices, and EMS can choose.		RailTel will facilitate necessary support for supported protocol from existing OEMs.
239	213	8	8.2.4.1	Bidder/OEM can also leverage existing Network Management system/SDN/EMS de-ployed in RailTel in proposal. In case if the cards/modules/Licenses in the existing system is proposed, OEM shall provide Undertaking for long term support for 8 years for its own supplied components irrespective of End of Life of the existing system. Hard- ware/Software required for such up gradation shall be included in price bid.	Request details of existing NMS at RailTel to consider re-use of the same. Bidder will not have direct relationship with Railtel vendors and it cannot provide support for something, it did not bring/purchase, and will count on RailTel for the same. Bidder will however provide support for its own supplied solution/components.		Tender condition is very clear.No Change is required
240	214	8	8.2.4.2	Device Management System (Fault and Performance) for Legacy Network 8. The solution shall use concepts such as Micro service-based Container Architecture Roadmap is also acceptable, and it should be implemented before PAC with no cost to RailTel.	Request Railtel to allow flexibility to propose either VM based or Container based solution.		Tender condition is very clear.No Change is required

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241	215	8	8.2.4.2	12. The bidder should ensure that services should be written in such a way that they can be automated for testing. Test automation is necessary to ensure services can be up-graded, re-factored, etc. without breaking other services that use them. The bidder should ensure that all services should be inherently versioned, and all invocations must specify the version of service.	We understand a separate E55\+E45test automation solution is not asked for, please confirm.		Purpose of this clause to have capability to invoke third party test automation based on use cases.
242	217	8	8.2.4.2	23. The bidder shall provide the details of data synchronization strategy both in batch mode and in real time. RailTel, in consultation with bidder, shall decide on the methodology of data synchronization based on service requirements.	What is the use-case of data synchronization in batch mode, request elaboration?		Tender condition is very clear.No Change is required
243	30	8	Chapter- 3, 3.A.1.4 OS	Integration of GIS Tool with OSS	To ensure a comprehensive understanding of the project requirements. Could you please outline the key business processes and workflows that necessitate the integration of GIS with OSS, and how these will be reflected in the use cases?		GIS tool should be integrated for inventory & workflow management as per use cases
244	230	8	Chapter- 8, 8.2.5.2 Fiber Inventory Management System (GIS Tool)	The solution should be web and mobile-based Fiber Inventory Management system, de-ployable both on-premises and in secure public/private cloud environments.	On which environment the solution be deployed? 1. On-premise or 2. Public Cloud or 3. Private Cloud		On-premise
245	231	8	Chapter -8, Fiber Inventory Management System (GIS Tool), C. GIS Tool should support following OSP & ISP Plan, Design & Inventory Management features:	s. It has capability to maintain the user re-open back after session logout.	The RFP clause "It has capability to maintain the user re-open back after session logout" is somewhat ambiguous. To fully understand the requirement, you need to clarify the following:  Session Timeout: How long is the session expected to remain active before a logout occurs? Data Persistence: What data should be preserved during the session logout and subsequent re-open? User State: Should the user interface be restored to its previous state, or should the user start from a default state? Security Implications: Are there any specific security requirements or considerations related to session management and user re-opening?		These details should be implemented as industry best practice as per use cases.
246	232	8	Chapter -8, Fiber Inventory Management System (GIS Tool), C. GIS Tool should support following OSP & ISP Plan, Design & Inventory Management features:	aa. The application shall support the Link/Service Management Module.	To effectively address this RFP clause, it's crucial to understand the specific functionalities and expectations associated with the Link/Service Management Module. Here are some potential questions to clarify the requirement:  Functional Requirements: Core functionalities: What specific link and service management functions are required (e.g., creation, modification, provisioning, de-provisioning, fault management, performance management)? Data elements: What data elements are necessary for link and service management (e.g., link type, service type, bandwidth, circuit ID, service level agreements)? Integration points: How should the Link/Service Management Module integrate with other OSS systems (e.g., inventory management, order management, network planning)? Workflows: What are the key business processes and workflows that the Link/Service Management Module should support?		These details should be implemented as industry best practice as per use cases.

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247	230	8	Chapter -8, Fiber Inve	Support open-source databases like PostgreSQL.	While PostgreSQL is suggested, please consider allowing bidders flexibility in database selection. Any industry-standard relational database management system (RDBMS) with equivalent capabilities to PostgreSQL should be acceptable.		Support open-source databases like PostgreSQL or better
248	230	8	Chapter -8, Fiber Inve	ix. Minimum 20 Nos of User Licences to Provided.	To clarify the user license requirement, please provide a breakdown of the minimum number of licenses required for mobile, web, and desktop platforms. This information will assist us in accurately scoping our proposed solution and ensuring it aligns with your specific needs.		May please see Corrigendum-III
249	231	8	Chapter -8, Fiber Inve	The Application shall have Voice command features to enable placement of network enti-ties from field.	While voice command features for network entity placement might be considered, we recommend exploring alternative input methods due to potential data accuracy and consistency challenges associated with voice recognition technology in field environments.		It should be implemented as industry best practice or equivalent methods as per use cases.
250	232	8	Chapter -8, Fiber Inventory Management System (GIS Tool), C,	The solution will support Auto Planning for point-to-point backbone fiber in Greenfield and Brownfield, including civil and network infrastructure, and generate BOM/BOQ with optimized routes.	<p>We recommend removing the requirement for "Auto Planning for point-to-point backbone fiber in Greenfield and Brownfield, including civil and network infrastructure, and generate BOM/BOQ with optimized routes" from the RFP.</p> <p>Rationale:</p> <ul style="list-style-type: none"> <li>- The accuracy of landbase data is a critical factor for successful auto planning. Any discrepancies in the data can lead to significant errors in planning, resource allocation, and cost estimation.</li> <li>- Ensuring the availability of high-quality, up-to-date landbase data for the entire project area is a complex and resource-intensive task.</li> <li>- Manual planning, complemented by advanced GIS tools and analysis, can provide a more reliable and accurate solution, especially in areas with limited or inaccurate landbase data.</li> <li>- By removing this requirement, the RFP will focus on more achievable and practical solutions that can deliver tangible benefits to the project.</li> </ul>		Please see Corrigendum-III
251	8	8.2.5.2 Fiber Inventory Management System (GIS Tool)	Generic Points		Other than NMS/EMS, OTDR/RFMS is there any other integration? PI provide use cases if available.		With OSS & Ticket system
252	8				What is the Logical Inventory system used to manage the active inventory.		Tender condition is very clear , May please refer Tender
253	8				How many average no. of interfaces to be developed with each integration system and GIS?		With OSS & Ticket system
254	8				Do we need to map the Wireless inventory? If yes, which all network elements to consider?		Not applicable
255	8				Do you have an existing GIS solution? If yes, 1. Are you looking for a new GIS solution? 2. Do we need to migrate the data from existing GIS to new solution? 3. What is the software on which existing GIS is built-on?		Presently not deployed, the offered solution should have a integration support .May please refer Tender
256	8				Do we need to setup the Diaster Recovery site in the proposed solution?		May please refer Tender

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257	235	8	8.2.7.1 --> 21. Provisioning	1. Should support tool to provision server using RESTful API to discover and deploy servers at scale 2. Provision one to many servers using own scripts to discover and deploy with Linux or Scripting Tools for Windows PowerShell	A different category of tools (Infrastructure Management) are required to provision server and deploy at scale. Telco SOM would not offer this. Please confirm if RailTel has a use-case for infrastructure management (more for telco operators deploytin NFs) and if bidder/OEM needs to propose a solution for the same.		Proposed server should support remote Infrastructure Management using RESTful API.
258	143	FORM NO. 7		I/We have offered Hardware and Software having End of Life (EOL) more than 8 years and End of Sale (EOS) more than 4 years from the date of opening of this Tender.	I/We have offered Hardware and Software having End of <b>Service</b> Life (EOL) more than <b>7 Years</b> <del>8 years and End of Sale (EOS) more than 4 years</del> from the date of opening of this Tender.	End of Sales depends on the Roadmap which are always Subject to Change. Hence it is not possible for OEMs to commit the End of Sales.  Moreover Railtel's investment protection depends on "End of Service Life" and not on "End of Sales". Hence request to kindly remove "end of Sales" clause for wider participation from all the OEMs.	May please see Corrigendum-III
259	166	8.1 General Conditions	8.1.8	OEMs should support Firmware up gradation till the OEM announces End of Life (EoL). Hardware and Software offered by OEM should have End of Life (EOL) less than 8 years from the date of Supply. End of Sale (EOS) of offered Hardware and Software should not be less than 4 years from the date of Supply.	OEMs should support Firmware up gradation till the OEM announces End of Life (EoL). Hardware and Software offered by OEM should have End of <b>Service</b> Life (EOL) less than <del>8 years- 7 years</del> from the date of Supply. <del>End of Sale (EOS) of offered Hardware and Software should not be less than 4 years from the date of Supply.</del>	End of Sales depends on the Roadmap which are always Subject to Change. Hence it is not possible for OEMs to commit the End of Sales.  Moreover Railtel's investment protection depends on "End of Service Life" and not on "End of Sales". Hence request to kindly remove "end of Sales" clause for wider participation from all the OEMs.	May please see Corrigendum-III
260	244	8.2.7.4 SAN Switch	4	Switch must be provided with <b>16 x 16 Gbps ports</b> per SAN Switch (including li- censes and must be scalable to minimum <b>32 x 16 Gbps</b> Ports. Switch must also support upgrade to <b>32 Gbps</b> Ports by just replacing the <b>16Gbps</b> transceivers with <b>32 Gbps</b> transceivers.	Switch must be provided with <b>24 x 32 Gbps ports</b> per SAN Switch (including li- censes and must be scalable to minimum <b>64 x 32 Gbps</b> Ports. Switch must also support upgrade to <b>64 Gbps</b> Ports by just replacing the <b>32Gbps</b> transceivers with <b>64 Gbps</b> transceivers.	The requested 7-8 years Support life can be supported with latest 64 Gbps SAN Switches (populated with 32G SFPs).  Kindly note that 16 Gbps Switches cannot be supported for 8 years as per the SAN Switch OEM's Cisco and Broadcom.	No change. It will be as Tender document
261	237	8.2.7.2 Storage	Storage Architecture	The proposed array should be a purpose-built storage supporting block.	<b>Change To:</b> The proposed array should be a purpose-built storage supporting block <b>and File.</b>	<b>Reason:</b> Not having File Services is a risk to Railtel's investments because Railtel will have to re-purchase another storage system if the need for File Services from any application team arises in future. Please be noted that majority of world's data (more than 90%) is in unstructured format (that is file data) and hence every organization will have some file data for sure.	No change. It will be as Tender document

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262	237	8.2.7.2 Storage	Cache	Proposed storage shall have minimum 192 GB DRAM cache. Storage system should support scalability of DRAM cache to 768 GB either by adding more DRAM on the same controllers or by replacing the controllers with higher model or adding more controllers.	<b>Change To:</b> Proposed storage shall have minimum 192 GB DRAM cache. Storage system should support scalability of DRAM cache to 768 GB either by adding more DRAM on the same controllers or by replacing the controllers with higher model or adding more controllers <b>to achieve better performance on existing drives.</b> <b>Proposed Storage must have minimum 55 Ghz CPU Cores (No. of Cores x CPU Base Frequency) or higher, which should be scalable to atleast double in future for increasing performance on the existing drives.</b>	<b>Reason:</b> 1. CPU cores are an important storage feature that help to achieve required performance. request to kindly mention the minimum CPU cores required and scalability to ensure that Railtel doesn't end up in procuring sub-standard Storage System. 2. The overall idea of cache scalability is to improve application performance on the drives supplied. Hence requesting Railtel to mention that cache scalability be provided to improve performance on the proposed drives.	No change. It will be as Tender document
263	237	8.2.7.2 Storage	Front-end Ports	"The proposed storage array should be configured with 08 No. of 16 or 32 Gbps FC ports and <b>04 No.</b> of 10 or 25 GbE ports to provide scalable and dedicated connectivity to hosts and for remote replication. Storage System must support 2- way and 3-way Replication."	<b>Change To:</b> The proposed storage array should be configured with 08 No. of 16 or 32 Gbps FC ports and <b>04 No.</b> of 10 or 25 GbE ports to provide scalable and dedicated connectivity to hosts and for remote replication, <b>SMB, NFS.</b> Storage System must support 2- way and 3-way Replication."	<b>Reason:</b> Railtel will have to re-purchase another storage system if the need for File Services (SMB, NFS) from any application team arises. Request to please mention SMB, NFS protocols for investment protection of Railtel. Please be noted that majority of world's data (more than 90%) is in unstructured format (that is file data) and hence every organization will have some file data for sure.	No change. It will be as Tender document
264	238	8.2.7.2 Storage	Capacity & Performance Requirement	Proposed Storage must be supplied with minimum useable 100TiB (Base-2) SSD.	<b>Change To:</b> Proposed Storage must be supplied with minimum useable 100TiB (Base-2) SSD <b>3WPD.</b>	<b>Reason:</b> Service life (failure rates) of SSD's depend on the DWPD value. Higher DWPD means better service life (lower failure rate). Hence request to kindly mention the drive types as 3WPD or better to ensure better application uptime.	No change. It will be as Tender document
265	238	8.2.7.2 Storage	Protocol Support	Offered storage should be bundled with FC and iSCSI protocols from day one.	<b>Change To:</b> Offered storage should be bundled with FC, <b>NFS, SMB</b> and iSCSI protocols from day one.	<b>Reason:</b> Railtel will have to re-purchase another storage system if the need for File Services (SMB, NFS) from any application team arises. Request to please mention SMB, NFS protocols for investment protection of Railtel. Please be noted that majority of world's data (more than 90%) is in unstructured format (that is file data) and hence every organization will have some file data for sure.	No change. It will be as Tender document

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266	234	8.2.7.1.4 Server	Memory slots	Up to 32 x DDR4 RDIMMs/LRDIMMs	<b>Change To:</b> Up to 24 or more x DDR4 RDIMMs/LRDIMMs	<b>Reason:</b> For large participation please amended with suggested clause	May please see Corrigendum-III
267	241	8.2.7.3 Backup Solution	Backup Data Retention Policy and Sizing report/certification	The offered purpose-built backup appliance should be sized appropriately for backup of front- end data of <b>30 TB</b> (20% DB, 30% VM & 50% File System) as per below mentioned backup policies:	Please confirm do we need to consider front end data size 30 TB or 50 TB.		Consider backup of front- end data of 30 TB.
268	242	8.2.7.3 Backup Solution	Backup window	The proposed solution should support completing backup of 50 TB within a backup window of 8 hours. The backup solution must support client-direct backup feature for file system, applications and databases to reduce extra hop for backup data at backup/media server to cater stringent backup window.	Please confirm do we need to consider front end data size 50 TB or 30 TB.		May please see Corrigendum-III
269	19		Overview of the Scope of Work	The proposed OSS shall also have a provision to integrate Rail-Tel's IP/MLS Network and other related systems like Order Management System, Billing System, Asset Management System etc to achieve the objective of a National Network Operation Centre (NOC).	Kindly share the details of the existing Tools and their respective API integration options.  We understand that RailTel will facilitate the necessary API integration support from respective vendors / OEMs of other tools and all applicable API licenses from these vendors / OEMs is in the scope of RailTel.  Kindly confirm.		Detail of Existing tools is as under: (i) ERP: Oracle E-Business version R12.2.11 (ii) HPSM: 9.60.0025 service manager. (iii) GIS: To be proposed by bidder. All existing tools/systems supports open standard protocols and APIs for integration. And required support will be arranged by Railtel for integration from respective system OEM.
270	20		Key Objectives of OSS Solution	b. Fault and Performance Management of Legacy & Legacy Devices should supported via their Respective EMSs/SDN Controller.	We understand that SDN Controller is not feasible for legacy Network. Hence, Fault & Performance management of Legacy Network will be done by OSS through respective EMSs. If in case OSS has the capability to do direct with legacy network and standard protocol shall we do that instead of EMS?  Kindly confirm.		In case OSS has the capability, Fault and Performance Management of Legacy & MPLS Devices may be done without EMS/SDN- controller/Device Management.
271	20		Key Objectives of OSS Solution	3. Catalog Driven Service Fulfilment, Orchestration and Order Management	We understand that proposed OSS should integrate with RailTel's Order Management system as per statement in page 19 under section 3.A.1.2. Hence role of OSS under Order management is only fulfilment of the Requests received from Order Management System of RailTel.  Kindly confirm.		It will be as per tender document.
272	20		Key Objectives of OSS Solution	5. Integration with following existing ecosystem to enable automated operations, as possible: a. Trouble Ticket Tool b. ERP Tool as BSS's COM layer	We understand that RailTel will facilitate the necessary API integration support from respective vendors / OEMs of these tools and all applicable API licenses from these vendors / OEMs is in the scope of RailTel.		All existing ecosystems supports open standard protocols and APIs for integration. And required support will be arranged by Railtel for integration from respective system OEM.
273	21		Key Objectives of OSS Solution	2. Provide an Active Inventory Model of the Network in graphical database.	Need more details of the requirement.		It will be as per tender document.
274	21		Integrated Solution	The seamless integrated platform consisting of incident/problem management, change management, knowledge management, and workforce management capability should be provided for use by personnel to include Service Desk Staff, NOC User, and Field Staff.	We understand that the "integrated platform" mentioned here refers to the overall integrated set-up for RailTel that consists of proposed OSS and other tools of RailTel.  Workforce management is a separate & external tool and not part of OSS scope.  Kindly confirm.		Currently WFM is not available with RailTel . Please Consider Ticketing System (HPSM) as integrating point.

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275	23		EMS/NMS Integration	Bidder should describe in their responses the scope of the commands that their OSS is capable of sending to EMSs and network elements, particularly with regard to supporting provisioning functionality solution communications mechanisms shall be open enough that the system will be able to communicate in the future with any EMS that Purchaser chooses to use with relatively little duplication of effort put into creating the initial EMS interfaces.	The scope of Commands from OSS to respective EMSs will be based on the Services Catalogue of the RailTel network.		It will be as per tender document.
276	23		EMS/NMS Integration	SDN Controller for IP-MPLS Mediation Layer for DWDM	We understand that these two proposed components of RailTel set-up are external Tools and OSS will integrate with them for the overall functional scope.		Tender condition is very clear. Bidder/OEM should provide a mediation layer/SDN-Controller/EMS/NMS for IP-MPLS,DWDM and Legacy devices. In case OSS has the capability, Fault and Performance Management of Legacy & MPLS Devices may be done without EMS/SDN-controller/Device Management.
277	25		Hardware Requirements	For DR option, either of two options can be offered - i) Distributed HA where DC will have an instance and another instance will be at DR Site (Secundrabad). ii) Local HA at DC Site (Gurgaon) in case Geo DR (Active-Active) is not offered.	We understand that option is provided to offer overall solution (OSS, SDN-Controller/EMS & Device Management for Legacy devices) in either DC-DR architecture or DC with local HA architecture.  Kindly confirm.		Yes, your understanding is right. Bidder can offer either Distributed HA (Active-Active) at Gurgaon and Secunderabad or Local HA (Active-Active or Active- Passive) at Gurgaon for the complete solution of production environment.
278	29		OSS Solution Implementation Phases	Brown field discovery for Customer provisioned and Reconciliation with proposed provisioning solution.	Kindly elaborate on the requirement.		May please see Corrigendum-III
279	73	4	4.A.14.1	a	As per the clause, the bidder should have deposited EMD online on enivida Portal account	It is requested to kindly allow PSU Bidders to submit Bid Securing Declaration in place of EMD or submit EMD in form of Bank Guarantee	It will be as per Tender document
280	84	4	4.A.14.3	Note: (i) Work experience certificate issued by Public listed company having average annual turnover of Rs 500 Cr and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange or any global stock exchange, incorporated/registered at least 5 years prior to the date of opening of tender, shall also be considered provided the work experience certificate has been is-sued by a person authorized by the Public listed company to issue such certificates. (ii) In case of listed Company, certificate of stock exchange regarding date of listing on Bombay Stock Exchange, National Stock Exchange or pertaining global stock ex-change shall be provided along with offer.	Request you to please add a new note (iii) after the existing note (ii) as follows: (iii) For all compliances of technical requirements and specifications mentioned in this section, the term 'OEM' can be interpreted as either the Original Equipment Manufacturer or its authorized partner.	The proposed change clarifies that an authorized partner of the OEM can fulfill the technical requirements and specifications on behalf of the OEM. This allows for greater flexibility in the bidding process and enables authorized partners with the necessary expertise and capabilities to represent the OEM in the tender process.	The core capabilities of the OSS solution shall be meet by the respective OEMs,and the compliance of the same should also be vetted by the OEM. However the integration related compliances shall be meet by either OEM or bidder. Accordingly the compliances may be given by the bidder/OEM.