Response to Pre-bid queries

RailTel Tender No. RailTel/Tender/OT/CO/Project/2024-25/MDWDM/013 Dated: 19.08.2024

SN	Clause no. & Chapter no.	Page no.	Sub clause no./ point no.	Content of the clause requires clarification	Points of clarification required	Remarks	RailTel's Response
1	Note, Point No IX	10		The Bidder(s)/OEM(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.	Can OEM bid with multiple partner? or Should bid with only single bidder.Please clarify		Yes, OEM can bid with mutiple partner
2	32, Chapter 3A	27		TRAINING OF PURCHASER'S PERSONNEL: 40 days man week training on the equipment and network operation shall be provided by the Tenderer to RailTel in RailTel/OEM/Bidder premises with no cost to RailTel.	Please clarify whether RailTel needs 40 days of training or 40 people to be trained. Please clarify.		40 people to be trained with batch size of 10 Peoples
3	3.A.3.2	13		RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning	We understand that RailTel will provide 4RU per direction for OADM-ILA-OADM and ILA. Please confirm As per RailTel tender RailTel/Tender/OT/CO/NTP/2021-22/DWDM & MDWDM/001 (Clause no 3.A.1.4.40.1.5 , Page no 47)Rack space is 8RU for ILA so please allow rack space >8RU for ILA & terminal site.		Tender condition is very clear
4	3.A.3.2.1	13		OADM sites are equipped with 8 Channel Mux/De-mux (minimum) with 100 GHz channel spacing at each direction.	According to the traffic matrix, it seems that the requirement cannot be met with an 8-channel Mux/Demux at the Main/POP site. Therefore, our recommendation is to use a 40-channel Mux/Demux at the OADM (Main/POP) site to accommodate future network capacity expansion.		Tender condition is very clear , Bidder/OEM can propose 8 Channel Mux/De-mux (minimum) or higher with 100 GHz channel spacing at each direction based on their offered soloution.
5	3.A.3.5.i	15		The DWDM OADM and ILA-OADM system at each location shall have the capability to support additional 400G (2x100G/200G) line traffic capacity after equipped with photonic layer and traffic card as per traffic matrix requirement. The system shall provide flexibility to map ODU2/ ODU2e/ ODU3/ ODU4/ ODU flex to 100/200G line ports. The system shall support client and line side protection (50 ms) on proposed 100/200G Traffic Line system (in case required in future).	We understand that one or two traffic slots should be kept free for future use, and the traffic card capacity should be as per the traffic matrix requirements. Please confirm.		Yes, Some traffic slot in DWDM OADM and ILA-OADM Chassis at each locations should be kept free for future expanstion 400G (2x100G/200G) line traffic capacity after equipped with photonic layer and traffic card as per traffic matrix requirement.
6	3.A.3.5.Xiii	15		All the Line ports of 100/200G Traffic Line System shall support minimum back-to-back OSNR sensitivity of -16 db or better at 100G line rate on 40 Channel system	If the Coherent Line port distance range (250 KM) is specified to include 2 ILAs at the intermediate site, why is there a need for a B2B OSNR sensitivity of -16 dB? Please clarify. Our suggestion is to consider the Coherent Line port performance based on distance range.		Please see corrigendum-1
7	3.A.3.5.6	16		The proposed system shall be managed by a single unified system/Controller with DC & DR (active location at Secunderabad and standby location at New Delhi) for all the active components. Bidder shall also propose Controller based Management System for managing system with DC & DR (active and standby). All licenses required for Northbound and Southbound interface (API) should be equipped with offered solution at no additional cost to RailTel. Bidder/OEM can also leverage existing Management system deployed in RailTel, if the OEM shall provide undertaking for long term support for 8 years for all existing components irrespective of End of Life of the existing hardware/License/Software. Hardware/License/Software required for such up gradation shall be included in the price bid	We understand that the Bidder/OEM can leverage the existing/deployed DWDM and MDWDM hardware/chassis and NMS management system. Please confirm.		Yes, Bidder/OEM can leverage the existing/deployed DWDM and MDWDM NMS management system.
8	3.A.3.5.10.D	18		All Protected services of STM-4/STM-16/10G shall be provision as per the requirement of traffic matrix placed at Annexure-V. and same should be protected from all possible paths (single, dual, inter ring and intra ring fiber cuts) available (including alien paths) in Network as per topology defined in Annexure II. Proposed solution for protection should have support from minimum three different paths (In case of available of paths in topology) from day-1 for services of STM-4/STM-16/10G. Protection switching shall be triggered within 50 ms.	A switching time under 50ms is not achievable for single, dual, inter-ring, and intra-ring fiber cuts or every fiber cut. Therefore, please limit the switching time to either one or two fiber cuts		Yes, Switching time of 50ms is limited to one fiber cuts only.
9	3.A.3.5.11.iv	21		Proposed Amplifiers for ILA should also be supported as Pre- amplifiers in case required at ILA-OADM & OADM Locations	A preamplifier needs to be proposed at the ILA and ILA OADM locations. Please confirm		Proposed Amplifiers in ILA should also be useable at ILA-OADM & OADM Locations as Pre-amplifier.
10	3.A.3.5.11.iv	21			Since the electrical signal will be transmitted over the optical layer, a minimum of two types of chassis is required. Therefore, please allow at least two or three chassis types		Please see corrigendum-1
11	Note, Point No IX	10		The Bidder(s)/OEM(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.	Can OEM bid with multiple partner? or Should bid with only single bidder.Please clarify		Yes, OEM can bid with mutiple partner
12	32, Chapter 3A	27		TRAINING OF PURCHASER'S PERSONNEL: 40 days man week training on the equipment and network operation shall be provided by the Tenderer to RailTel in RailTel/OEM/Bidder premises with no cost to RailTel.	Please clarify whether RailTel needs 40 days of training or 40 people to be trained. Please clarify.		40 people to be trained with batch size of 10 Peoples

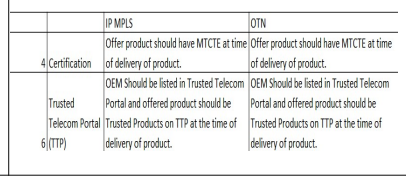
13	3.A.3.2	13		RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning	We understand that RailTel will provide 4RU per direction for OADM-ILA-OADM and ILA. Please confirm As per RailTel tender RailTel/Tender/OT/CO/NTP/2021-22/DWDM & MDWDM/001 (Clause no 3.A.1.4.40.1.5 , Page no 47)Rack space is 8RU for ILA so please allow rack space >8RU for ILA & terminal site.		Tender condition is very clear
14	3.A.3.2.1	13		OADM sites are equipped with 8 Channel Mux/De-mux (minimum) with 100 GHz channel spacing at each direction.	According to the traffic matrix, it seems that the requirement cannot be met with an 8-channel Mux/Demux at the Main/POP site. Therefore, our recommendation is to use a 40-channel Mux/Demux at the OADM (Main/POP) site to accommodate future network capacity expansion.		Tender condition is very clear , Bidder/OEM can propose 8 Channel Mux/De-mux (minimum) or higher with 100 GHz channel spacing at each direction based on their offered soloution.
15	3.A.3.5.i	15		The DWDM OADM and ILA-OADM system at each location shall have the capability to support additional 400G (2x100G/200G) line traffic capacity after equipped with photonic layer and traffic card as per traffic matrix requirement. The system shall provide flexibility to map ODU2/ ODU2e/ ODU3/ ODU4/ ODU flex to 100/200G line ports. The system shall support client and line side protection (50 ms) on proposed 100/200G Traffic Line system (in case required in future).	We understand that one or two traffic slots should be kept free for future use, and the traffic card capacity should be as per the traffic matrix requirements. Please confirm.		Yes, Some traffic slot in DWDM OADM and ILA-OADM Chassis at each locations should be kept free for future expanstion 400G (2x100G/200G) line traffic capacity after equipped with photonic layer and traffic card as per traffic matrix requirement.
16	3.A.3.5.Xiii	15		All the Line ports of 100/200G Traffic Line System shall support minimum back-to-back OSNR sensitivity of -16 db or better at 100G line rate on 40 Channel system	If the Coherent Line port distance range (250 KM) is specified to include 2 ILAs at the intermediate site, why is there a need for a B2B OSNR sensitivity of -16 dB? Please clarify. Our suggestion is to consider the Coherent Line port performance based on distance range.		Please see corrigendum-1
17	3.A.3.5.6	16		The proposed system shall be managed by a single unified system/Controller with DC & DR (active location at Secunderabad and standby location at New Delhi) for all the active components. Bidder shall also propose Controller based Management System for managing system with DC & DR (active and standby). All licenses required for Northbound and Southbound interface (API) should be equipped with offered solution at no additional cost to RailTel. Bidder/OEM can also leverage existing Management system deployed in RailTel, if the OEM shall provide undertaking for long term support for 8 years for all existing components irrespective of End of Life of the existing hardware/License/Software. Hardware/License/Software required for such up gradation shall be included in the price bid	We understand that the Bidder/OEM can leverage the existing/deployed DWDM and MDWDM hardware/chassis and NMS management system. Please confirm.		Yes,Bidder/OEM can leverage the existing/deployed DWDM and MDWDM NMS management system.
18	3.A.3.5.10.D	18		All Protected services of STM-4/STM-16/10G shall be provision as per the requirement of traffic matrix placed at Annexure-V. and same should be protected from all possible paths (single, dual, inter ring and intra ring fiber cuts) available (including alien paths) in Network as per topology defined in Annexure II. Proposed solution for protection should have support from minimum three different paths (In case of available of paths in topology) from day-1 for services of STM-4/STM-16/10G. Protection switching shall be triggered within 50 ms.	A switching time under 50ms is not achievable for single, dual, inter-ring, and intra-ring fiber cuts or every fiber cut. Therefore, please limit the switching time to either one or two fiber cuts		Yes, Switching time of 50ms is limited to one or two fiber cuts only.
19	3.A.3.5.11.iv	21		Proposed Amplifiers for ILA should also be supported as Pre- amplifiers in case required at ILA-OADM & OADM Locations	A preamplifier needs to be proposed at the ILA and ILA OADM locations. Please confirm		Proposed Amplifiers in ILA should also be useable at ILA-OADM & OADM Locations as Pre-amplifier.
20	3.A.3.5.11.iv	21		<table><tr><th>Sr. No.</th><th>Active Component</th><th>Types of Models allowed</th></tr><tr><td>1</td><td>Chassis (OADM)</td><td>Max. One Type</td></tr><tr><td>2</td><td>Chassis (ILA & ILA-OADM)</td><td>Max. One Type</td></tr><tr><td>2</td><td>Amplifiers (Booster, Pre-Amp & Midstate)</td><td>Max. Two Type</td></tr><tr><td>4</td><td>Mux/Demux (Min 8 Ch. Add/drop) at OADM</td><td>Only One type</td></tr><tr><td>5</td><td>Mux/Demux (Min 2 Ch. Add/drop) at ILA-OADM & FOADM</td><td>Only One type</td></tr></table>	Since the electrical signal will be transmitted over the optical layer, a minimum of two types of chassis is required. Therefore, please allow at least two or three chassis types		Please see corrigendum-1
21	4.A.5	39	4.A.5.1	75% payment of the value of supply (Schedule-A) would be made on receipt of material by the consignee duly inspected	Please clarify whether Vendor will receive their 75% payment after delivery at RAILTEL office details mentioned on the pg No. 39 clause no. 4.A.4.1 or delivery at 237 sites mentioned in the Annexure-I of Pg. No. 130. We again request you to release vendor payment at first point of deliver.		Clause is clear.
22	4.A.8	42		Insurance :-----The Contractor shall take out and keep in force a policy or policies of insurance from the date, the delivery of material starts (including the transit portion) against all liabilities of the Contractor or the Purchaser. The contractor shall take out and keep in force a Policy or policies of Insurance for all materials covered in schedule of requirement irrespective of whether used up in the portion of work already done or kept for the use in the balance portion of the work until such material are provisionally handed over to RailTel. The goods will be issued by purchaser to supplier and risk of goods shall remain with supplier until the issue of PAC by RailTel. Insurance policy has to be kept valid by the contractor till issue of PAC by RailTel.	We request you to amend the insurance clause as Insurance will be only till first point of delivery by the bidder. And also insurance company will not provide insurance till PAC so we request you to remove this clause. Insurance company will not do the insurance from Bidder perspective. it has to be considered by the tenderer - as if any claims arises (post Targus Delivery at 1st pointof site.) railtel can claim it. Targus cannot claim any damages.		As per tender document

23	4.A.2	36	4.A.2.1	The warranty would be valid for a period of 36 months (comprising of 12 months of maintenance supervision vide clause 4.A.2.5 below, between issue of PAC and FAC, followed by 24 months of warranty support under clause 4.A.2) after the completion of work in all sites and issue of Provisional Acceptance Certificate (PAC) as per clause 3.B.7.1 of Chapter-3B	We request you to kindly mention a time limit for provisional acceptance certificate (PAC) from the date of delivery. As delay in PAC will affect the warranty perioed of supplied materials. resulting in unknown higher cost of warranty. And also if there is a delay in Final Acceptance Certificate (FAC) due to site readiness or any other unforseen circumstatnces then who will obligate the warranty period. It needs to be put a fixed date for both PAC & FAC.		Please refer clause 3.B.7.1 & 4.A.5.3.
24	4.A.22	61	4.A.22.1	All the Bidders/OEM are required to deposit Tender Cost and EMD amount as mentioned in NIT and BDS through e-Nivida Portal as “Tender Cost” & “Earnest Money”. Tender cost and EMD in no other form shall be accepted	We request you to kindly accept the EMD in the form of Bank Guarantee also.		EMD amount is to be deposited through online transfer in eNivida Porta.
25	4.A.6	40	4.A.6.1	The successful bidder has to furnish security deposit in the form of Performance Bank guarantee @ 10% of issued PO/ LOA value, the same should be submitted within 30 days of issue of LOA/PO, failing which a penal interest of 15% per annum shall be charged for the delay period i.e. beyond 30 (thirty) days from the date of issue of LOA/PO.	We request you to kindly amend thes clause as "The successful bidder has to furnish security deposit in the form of Performance Bank guarantee @ 3% of issued PO/ LOA value, the same should be submitted within 30 days of issue of LOA/PO, failing which a penal interest of 15% per annum shall be charged for the delay period i.e. beyond 30 (forty) days from the date of issue of LOA/PO.		As per tender document
26	3.A.3.5	22	18	TENDERER’s Responsibility - The tenderer will be responsible for supply, installation, commissioning & supervision of complete work for this tender including the System design of network and integration with the existing network, wherever required. It shall be the responsibility of supplier to transport the equipment to site for the Installation &Commissioning.	Supplier can bear logistics cost to sites , but movement papers will be of Railtel only. Also the Insurance will be applicable from Railtel only as supplier insurance will expire on 1st point of delivery at stores. Railtel will have to keep the insurance of goods delievred as its property of raillte upon 1st delivery. this is as per Insurance Company Policy.- Can be verified by Insurance company also. In case of any theft or Damange in transit Railtel will be the owner and not supplier- as it will come under 2nd movement of goods from 1st point of delivery.- This is Important as Insurance has to be taken care by railtel only.		As per tender document
27	3.A.3.5.1.xiii	15		All the Line ports of 100/200G Traffic Line System shall support minimum back-toback OSNR sensitivity of -16 db or better at 100G line rate on 40 Channel system	In Clause 3.A.3.3-b(page 14) the minimum back-to-back OSNR sensitivity is mentioend at -17db whereas in clause 3.A.3.5.1.xiii it it mentioend at -16db Request Railtel to kindly claify the OSNR sensitivity value which need to consider for the design		Please see corrigendum-1
28	3.A.3.5.1.xiv	15		DWDM Network should be designed without Dispersion Compensation Module (DCM)	As tender ask is DCM free network .Please specify whether on line side 100G/200G rate need to consider for **10G /SDH client traffic mentione in the Traffic Matrix .** **Eg. in Annexure-V.** ER: North East Network (Rangiya-Jorhat) The requirement is of 2x10G Client for Segment Between Rangiya-Rangapara North Protection Type is Linear . So to Cater this traffic we would need 100G Line I/F .		Yes, DWDM Network should be designed photonic layer without Dispersion Compensation Module (DCM). Bidder/OEM can consider line side rate 100G/200G or mix of 10G wavelength and 100/200G coherent wavelength for 10G /SDH client traffic mentione in the Traffic Matrix.
29	3.A.3.5.10.A.ii	17		It should provide Physical client ports for QSFP28 pluggable modules to transport 100GbE client signals.	Please clarify whether OTU4 client signal support is also required in addition to 100GbE client signal.		Only 100GbE is required at Client side.
30	3.A.3.5.10.D	18		All Protected services of STM-4/STM-16/10G shall be provision as per the requirement of traffic matrix placed at Annexure-V. and same should be protected from all possible paths (single, dual, inter ring and intra ring fiber cuts) available (including alien paths) in Network as per topology defined in Annexure II. Proposed solution for protection should have support from minimum three different paths (In case of available of paths in topology) from day-1 for services of STM-4/STM-16/10G. Protection switching shall be triggered within 50 ms.	Request Railtel to Kindly confirm whether protection solution for STM-4/STM-16/10G shall support 3 paths protection(minimum) or all possible paths protection		Yes, All Protected services of STM-4/STM-16/10G shall be provision with minimum 3 different paths protection from day-1. In case, 3 different paths are not available in Network, services should be partial protected from available paths as per Topology.
31	3.A.3.5-10.E	18		Bidder/OEM can use proposed point to point 100/200G Links (against the requirement of traffic matrix as per annexure-IV) to provision services of STM-4/STM16/10G.	Kindly confirm whether **100G/200G** links to provision For STM-4/STM16/10G services is mandatory tender requirement or Bidder can proposed mix of 100G/200G and 10G line side links		Bidder/OEM can consider line side rate 100G/200G or mix of 10G wavelength and 100/200G coherent wavelength for 10G /SDH client traffic mentione in the Traffic Matrix. Bidder/OEM can also use proposed point to point 100/200G Links (against the requirement of traffic matrix as per annexure-IV) to provision services of STM-4/STM16/10G.
32	3.A.3.5.19.43	25		The 100/200G transponders/Muxponder shall be configured with QPSK.	Kindly confirm if 200G@8QAM/16QAM is allowed to be propsoed provdie the bidder/meet meet the link engineering requirement of tender		For 100G Line rate transponders/Muxponder shall be configured with QPSK.

33	3.A.3.5.19.45	25		At OADM & ILA-ODAM Locations, to support “East-West separation (EWS) i.e. the add/drop channel traversing the east direction shall not share cards/ modules in DWDM chassis including traffic card (except traffic with protection path) with add/drop channels in west direction.	Please clarify for OADM & ILA-ODAM location East-West separation (EWS) do bidder need to propose separate chassis with traffic card ,mux-demux, optical amplifier etc(except traffic with protection path) or bidder can propose separate traffic and optical amplifiers card within Single chassis		Yes, Bidder/OEM can propose separate traffic and optical amplifiers card within Single chassis .
34	Annexure-V	168		10G/STM-16 Layer Traffic Matrix Annexure-V ER: North East Network (Rangiya-Jorhat) Link Rangiya----Rangapara North with client side capacity 2x10G(Linear)	Please clarify for 10G and SDH client traffic mentioned in annexure-V do we need to configure extra 100G line side link. For example Rangiya--Rangapara --North link client side capacity ask is 2X10G(linear path Rangiya-Khoriabar-Rangapara North) As per 100G Optical Layer Traffic Matrix Annexure-IV no capacity is asked for Rangiya-Khoriabar- Rangapara North path.		Bidder/OEM can consider line side rate 100G/200G or mix of 10G wavelength and 100/200G coherent wavelength for 10G /SDH client traffic mentione in the Traffic Matrix. Bidder/OEM can also use proposed point to point 100/200G Links (against the requirement of traffic matrix as per annexure-IV) to provision services of STM-4/STM16/10G.
35					We request you to kindly address these queries at the earliest & postpone the last date of submission by another 4 week & oblige		Please see Corrigendum-I.
36	3.A.3.2	13	2	ILA sites Should be equipped with Mid Stage/single Stage Amplifier for East Direction and West direction	Keeping in view of fiber losses in the tender, dual stage amplifier should be allowed at ILA sites, not the single stage amplifiers.		Please see the Corrigendum-1
37	3.A.3.2	13	4	RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning. In case the offered equipment requires more Rack Space, in that case bidder shall provide & install Smart Telecom Rack (42 RU) with inner air conditioning (Min 1 KW & external outdoor unit and SNMP monitoring of Temperature). In this case DCDB, MCBs, power cables (approx. 15 meters per site) required for extending power from Power distribution point shall be provided by the bidder.	Request Railtel to allow bidder to quote 8RU rack space per site for OADM and ILA-OADM sites. This is just to clarify that MCBs for equipment installtion will be under scope of Railtel and Bidder need not to provide any MCB,DCDB, Earthing cable & Power cable from power plant to rack,if no new rack is being proposed by bidde		Tender Condition is very clear.MCBs for equipment installtion will be under scope of Railtel and Bidder need not to provide any MCB,DCDB, Earthing cable & Power cable from power plant to rack,if no new rack is being proposed by bidder.
38	3.A.3.2	13	6	Vendor must ensure that proposed system must have co-exist with channels in existing Network without any extra Hardware. The system should be designed as per traffic requirements proposed by RailTel at the time of commissioning of equipment. However, any extra traffic card repeater required as per design for traffic requirement (proposed by RailTel), same will be arrange by RailTel with variation in contract.	From the mentioned clause, we understand that at repeater locations which will be proposed by bidder, Railtel will provide the required hardware for alien chassis for the repeater.		Yes , In this case ,Railtel will provide the required hardware for photonic layer for alien Network for the repeater.
39	3.A.3.3	14	b	For Alien wavelength, 10/100G Traffic matrix shall be designed and provisioned as per Annexure-II (Network topology) and Annexure-III (Link details) of tender. For 100G over Alien wavelength, bidder to considered (for designed purpose) minimum back-to-back OSNR sensitivity of -17 db or better at 100G line rate on 40 Channel system in between two locations of traffic matrix. For 10G over alien wavelength, shall be designed with a 0.5 db/km section loss + 3db repair margin (in case of km mentioned) otherwise OEM should consider repeater (OEO) at each OADM locations as per Annexure-II (Network topology). In case of actual losses/OSNR are more at that time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers & Transponder (If required) shall be arranged by RailTel through variation in existing contracts.	Railtel has provided desgined considerations for 10G channels. Request Railtel to confirm design considerations for 100G line rate as well.		Please see the Corrigendum-1
40	3.A.3.3	14	b	For Alien wavelength, 10/100G Traffic matrix shall be designed and provisioned as per Annexure-II (Network topology) and Annexure-III (Link details) of tender. For 100G over Alien wavelength, bidder to considered (for designed purpose) minimum back-to-back OSNR sensitivity of -17 db or better at 100G line rate on 40 Channel system in between two locations of traffic matrix. For 10G over alien wavelength, shall be designed with a 0.5 db/km section loss + 3db repair margin (in case of km mentioned) otherwise OEM should consider repeater (OEO) at each OADM locations as per Annexure-II (Network topology). In case of actual losses/OSNR are more at that time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers & Transponder (If required) shall be arranged by RailTel through variation in existing contracts.	Request Railtel to confirm that EOL channel count for both 10G & 100G alien network is 40channels.		EOL channel count for both 10G & 100G alien network is 40 Channel
41	3.A.3.3	14	b	For Alien wavelength, 10/100G Traffic matrix shall be designed and provisioned as per Annexure-II (Network topology) and Annexure-III (Link details) of tender. For 100G over Alien wavelength, bidder to considered (for designed purpose) minimum back-to-back OSNR sensitivity of -17 db or better at 100G line rate on 40 Channel system in between two locations of traffic matrix. For 10G over alien wavelength, shall be designed with a 0.5 db/km section loss + 3db repair margin (in case of km mentioned) otherwise OEM should consider repeater (OEO) at each OADM locations as per Annexure-II (Network topology). In case of actual losses/OSNR are more at that time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers & Transponder (If required) shall be arranged by RailTel through variation in existing contracts.	Request Railtel to provide list of sites where repeater(OEO) needs to be consider for level playing field for all bidders.		Please see the Corrigendum-1

42	3.A.3.3	14	b	For Alien wavelength, 10/100G Traffic matrix shall be designed and provisioned as per Annexure-II (Network topology) and Annexure-III (Link details) of tender. For 100G over Alien wavelength, bidder to considered (for designed purpose) minimum back-to-back OSNR sensitivity of -17 db or better at 100G line rate on 40 Channel system in between two locations of traffic matrix. For 10G over alien wavelength, shall be designed with a 0.5 db/km section loss + 3db repair margin (in case of km mentioned) otherwise OEM should consider repeater (OEO) at each OADM locations as per Annexure-II (Network topology). In case of actual losses/OSNR are more at that time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers & Transponder (If required) shall be arranged by RailTel through variation in existing contracts.	Request Railtel to confirm that in case of repeater sites at alien network, all the optical layer (Mux/Demux, ROADMs, Amps etc) will be provided by Railtel and Bidder has to consider only Traffic cards along with chassis at repeater locations		Yes , In this case ,Railtel will provide the required hardware for photonic layer for alien Network for the repeater.
43	3.A.3.4	14		RailTel will provide required photonics details including fiber losses for designing of Network to OEM/Bidder at time of Installation of Network.	Photonic layer details are required for designing the network. Without Photonic layer details, it is very difficult at design the network. Providing details at the time of installation of network may result in change in Desing and hence, BOQ. So request Railtel to confirm the photonic details of existing network.		May please refer Tender Clause 3.A.3.3-a & 3.A.3.3-b.
44	3.A.3.5	15	1 (i)	The DWDM OADM and ILA-OADM system at each location shall have the capability to support additional 400G (2x100G/200G) line traffic capacity after equipped with photonic layer and traffic card as per traffic matrix requirement. The system shall provide flexibility to map ODU2/ ODU2e/ ODU3/ ODU4/ ODU flex to 100/200G line ports. The system shall support client and line side protection (50 ms) on proposed 100/200G Traffic Line system (in case required in future).	Acc to scope of tender, design part is left on the bidder. So, switching time of 50ms should be applicable to proposed solution.		Please see the Corrigendum-1
45	3.A.3.5	15	1(iv)	The equipment shall have provision for monitoring the performance of individual channels through the overhead byte of OTUCn. Also, in the case of Ethernet support, there shall be the provision of analysis of Ethernet frames.	From the analysis of Ethernet frames, we understand that PM of Ethernet should be available. Please confirm if this understanding is correct.		Yes through Ethernet PM .
46	3.A.3.5	15	1(xii)	System shall be built in such a manner that it should work with existing DWDM network based on above parameters and supplied SDN Controller should provide latest APIs, which shall further facilitate multivendor interoperability. System shall support configuration management, open APIs, and standards-based SNMP/YANG models. These management features should be available at no cost to RailTel.	SDN based networks are not of much benefits for DWDM based networks and that too without ASON/GMPLS. Also, big Tier-1 operators are struggling to make the full use of SDN based networks as interoperatorbility is still an issue and deployed SDN networks need big enggineering teams to contionusly develop APIs. Latest TEC GR for NMS systems-TEC-SD-IT-EMT-001-01-MAR-16 does not refer to SDN at any level. Also, This clause is a restrictive clause and may impact the participation of Indian OEM's in the bid. Hence, request Railtel to remove the clause.		Please see the Corrigendum-1
47	3.A.3.5	15	1(xiii)	All the Line ports of 100/200G Traffic Line System shall support minimum back-to-back OSNR sensitivity of -16 db or better at 100G line rate on 40 Channel system.	Mentioned clause is in contradiction with the clause 3.A.3.3-b Page-14 of tender where -17db of OSNR senstivity has been asked. Request Railtel to remove the clause.		Please see the Corrigendum-1
48	3.A.3.5	16	5	Protection switching shall on Line port of 100/200G be triggered (50 ms) based on Loss of Signal, signal degrade, Pre-FEC BER Signal Failure and OSNR/Q factor signal degrade (if required).	From Pre-FEC BER Signal failure we understand that traffic should switching in case Pre-FEC BER Degrade condition. We also understand that when Pre-FEC signal degrade will come, Q-Factor will also be degraded and switching will be done. So, there is no seperate Q-Factor degrade switching. It is assosciated with Pre-FEC BER Switching only. Please confirm if this understanding is correct.		Please see the Corrigendum-1
49	3.A.3.5	16	5	Protection switching shall on Line port of 100/200G be triggered (50 ms) based on Loss of Signal, signal degrade, Pre-FEC BER Signal Failure and OSNR/Q factor signal degrade (if required).	We understand that Pilot tone based switching will not be considered as Pre-FEC BER based switching. Please confirm if understanding is correct.		Please see the Corrigendum-1
50	3.A.3.5	15	7	Proposed system shall have management through remote CLI/Telnet/http/https and for alarm management, system support SNMP trap, syslog and SNMP polling.	As Syslog server are required for L3/IP-MPLS networks. In transport networks FCAPS funcaitonality is embedded in EMS with logs/events are available and can be accessed readily. Hence, request Railtel to remove syslog from the mentioned clause		Please see the Corrigendum-1
51	3.A.3.5	15	8	The proposed system shall support third-party optics (MSA Complaints) at the client side with no cost to RailTel. Bidder can propose fully compatible third party optics	There are too many MSA compliant optics vendor in the market. It is not possible to get all the present vendors qualified for the proposed equipments. Request Railtel to provide the list of third-party optics vendors for whom Railtel requires support.		Tender Condition is very clear.
52	3.A.3.5	17	10 A (ii)	It should provide Physical client ports for QSFP28 pluggable modules to transport 100GbE client signals	100G ports comes with 100GE and OTU4 interface support which is useful is all type of typical scenarios with no difference in cost. Hence, request Railtel to amend the clause for the support of 100GE and OTU4 both.		Tender Condition is very clear.
53	3.A.3.5	17	10 A (iii)	Traffic Line system should support fixed optics full C-band tunability (DWDM flex grid frequencies).	Fixed optics for 100G/200G is fastly obselteing. All major OEM in the industry support pluggable optics for 100G/200G line rates. Hence, request Railtel to amend the clause accordingly.		Please see the Corrigendum-1
54	3.A.3.5	17	10 B (iii)	Bidder/OEM shall propose MUXPONDER that should support minimum 4 channel of 10GbE and 4 x 10GBE client.	Request Railtel to confirm 4 channel of 10GBE means 4 channels of 10G/OTU2/OTU2e.		Please see the Corrigendum-1
55	3.A.3.5	17	10 B (iv)	System should support tunable DWDM SFP+ interface for 10GbE Services.	Tunable SFP+ are for line side, not for the client side. Request Railtel to amend the clause accordingly.		Please see the Corrigendum-1
56	3.A.3.5	17	10 B (vi)	It should support the E-SNCP for 10GbE service.	From E-SNCP we understand that ODUk SNCP . Request Railtel to confirm the same.		Yes,ODUk SNCP

57	3.A.3.5	17	10 B (vii)	It should support the ODU2e SNCP for 10GbE service.	From ODU2e we understand that ODUk SNCP . Request Railtel to confirm the same.		Yes,ODUk SNCP
58	3.A.3.5	17	10 B (viii)	It should support B/W and CWDM 10GbE SFP+ optical modules at the client.	CWDM is obselete technology and no one is using the same. So, request Railtel to remove the clause.		Please see the Corrigendum-1
59	3.A.3.5	18	10 D	All Protected services of STM-4/STM-16/10G shall be provision as per the requirement of traffic matrix placed at Annexure-V. and same should be protected from all possible paths (single, dual, inter ring and intra ring fiber cuts) available (including alien paths) in Network as per topology defined in Annexure II. Proposed solution for protection should have support from minimum three different paths (In case of available of paths in topology) from day-1 for services of STM-4/STM-16/10G. Protection switching shall be triggered within 50 ms.	From the clause, we understand that 50ms is the protection switching time after 1st cut. Beyond, 1st cut, network will go in restoration and no OEM in the world can gurantee 50ms for the restroration using any control plane. Hence, request Railtel to limit 50ms switching time limit for 1st cut and beyond 1st cut, restroration time can be more (as it cant be determined).		Yes,Switching time of 50ms is limited to one fiber cuts only.
60	3.A.3.5	18	10 D	All Protected services of STM-4/STM-16/10G shall be provision as per the requirement of traffic matrix placed at Annexure-V. and same should be protected from all possible paths (single, dual, inter ring and intra ring fiber cuts) available (including alien paths) in Network as per topology defined in Annexure II. Proposed solution for protection should have support from minimum three different paths (In case of available of paths in topology) from day-1 for services of STM-4/STM-16/10G. Protection switching shall be triggered within 50 ms.	As per clause, 3.A.3.5 E Page-18 of the tender, STM-4/STM16 clients to be mapped to 100G/200G line. By using STM-4/16 map to 100G/200G line will result in improper and inefficieint utilization of network. STM-16 client port for 100G line port is under utilizing the muxponder and Railtel may not be able to use muxponder efficiently. So, request Railtel to keep restroration of the services for 100G/200G line with 10G clients only.		Bidder/OEM can offer STM-4/STM16 clients services through any/ombinations options of Optical ASON or IP-MPLS Router or Transponder/Muxponder or OTN Switch or optical protection module-based equipment/Card/Module .
61	3.A.3.5	18	10 E	The Bidder/OEM can also propose DWDM with Optical ASON or IP-MPLS Router or Transponder/Muxponder or OTN Switch or optical protection module-based equipment/Card/Module or combinations for protection/Linear services of STM-4/STM-16/10G. Bidder/OEM can use proposed point to point 100/200G Links (against the requirement of traffic matrix as per annexure-IV) to provision services of STM-4/STM-16/10G.	Optical ASON by the bidder can not be implemented on already existing paths. Hence, already existing paths will not be part of Optical ASON. Please confirm if this understanding is correct.		In case of optical ASON , Bidder/OEM can propose New MDWDM for existing paths on separate fiber.
62	3.A.3.5	20	10 G	For Panvel to Madgaon (Goa) section, Bidder can propose SFPs based solution on existing switches/Routers of RailTel for 2x10G traffic (dropping at each station) in place of Transponder based solution as per the requirement of traffic matrix placed at Annexure-V. SFPs should be supported on D-Links, Edgecore, Watchdog, Cisco, Juniper and Techroute Switches/Routers.	1. Bidder can not guraantee performance of their own SFPs on other OEM switches/equipments. Bidder can propose SFPs based on MSA-compliance but running SFPs on other OEM equipment should be responsibility of Railtel. 2. If some OEMs propose SFPs and others propose transponder, this may yield benefit to OEMs proposing SFPs and hence, may not be level playing field for all bidders. Request, Railtel to amend the clause accordingly.		Please see the Corrigendum-1
63	3.A.3.5	23	19 (15)	Equipment should support third party open SFP (MSA compliant) for client (in case of SFP base port). Bidder to specify the SFP make and the OEM product code for all relevant SFP configurations. Bidder can also propose third party open SFP (MSA compliant) for client and line	OEMs may be an agreement (NDA) with its vendors for client/line ports. So, mentioning Product code & make may not be feasible for the bidder. Hence, request Railtel to remove the clause		Tender Condition is very clear.
64	3.A.3.5	24	19(23)	The Network Configuration Protocol (NETCONF) should support as defined in RFC 6241, is a management protocol that provides methods to install, manipulate, and delete the configuration of network devices, and retrieve non-configuration data. This management features should be available at no cost to RailTel	SDN based networks are not of much benefits for DWDM based networks and that too without ASON/GMPLS. Also, big Tier-1 operators are struggling to make the full use of SDN based networks as interoperatorbility is still an issue and deployed SDN networks need big enggineering teams to contionusly develop APIs. Latest TEC GR for NMS systems-TEC-SD-IT-EMT-001-01-MAR-16 does not refer to SDN at any level. Also, This clause is a restrictive clause and may impact the participation of Indian OEM's in the bid. Hence, request Railtel to remove the clause.		please see the Corrigendum-1
65	3.A.3.5	24	19(25)	All common critical cards for Controller, Management, Switch & Power of the equipment shall be "hot swappable".	From the mentioned clause, we understand that controller card redudancy is mandatory. Request Railtel to confirm the same.		Redundant controller card should not be required in case of non impact traffic.
66	3.A.3.5	25	19(43)	The 100/200G transponders/Muxponder shall be configured with QPSK	Tender requirement is of 100G/200G. Tranponder with 200G QPSK generally support line rate upto 400G which is not the requirement of the tender. It will unncessarrily bloat up the BOQ without the requirement in the tender. Hence, request Railtel to limit QPSK modulation to 100G only and 200G should be allowed with 8QAM/16QAM modulation.		For 100G Line rate transponders/Muxponder shall be configured with QPSK.
67	3.A.3.5	25	19(44)	DWDM System shall support Optical Supervisory Channel (OSC) that is inserted and extracted at each node. All network elements shall be managed through the offered OSC.	We undestand from the mentioned clause that for alien sites, OSC may not be required. Request Railtel to confirm the same.		Yes,OSC will not be required for alien Network.
68	3.A.3.2	14	6	Vendor must ensure that proposed system must have co-exist with channels in existing Network without any extra Hardware. The system should be designed as per traffic requirements proposed by RailTel at the time of commissioning of equipment. However, any extra traffic card repeater required as per design for traffic requirement (proposed by RailTel), same will be arrange by RailTel with variation in contract.	i. Please clarify for Metro DWDM all sites are fixed grid ROADM OADM (ROADM) based with 8/40 Channel Mux/De-mux (minimum) with 100 GHz. ii. Please also clarify if 8 Channel MUX/DEMUX shall be provided as a alien how many channel would be available for the Alien MUXPONDER Solution		For Desgin Purpose , Bidder to consider ROADM OADM (ROADM) based with 40 Channel Mux/De-mux (minimum) with 100 GHz for existing Network.

69	Chapter -3A	13	Cl.No -3.A.3.2 - 4	RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning. In case the offered equipment requires more Rack Space, in that case bidder shall provide & install Smart Telecom Rack (42 RU) with inner air conditioning (Min 1 KW & external outdoor unit and SNMP monitoring of Temperature). In this case DCDB, MCBs, power cables (approx. 15 meters per site) required for extending power from Power distribution point shall be provided by the bidder.	1.Equipment will have redundant power supply ,Power cable also we have to consider redudant total of 60 Mts(2x (Red+Black)=2x(15+15) =60 Metres)per site.Please clarify. 2.Please clarify the gauge of power cable requirement. 3. DCDB & MCBs at Railtel Power Plant from where the main power supply is enabled to the installation point will be arranged by Railtel.Please clarify.		1. Yes. 2. Gauge as per requirement of offered equipment (on full load). 3. clause is clear.
70	Chapter -3A	22	Cl.No -17	Earthing of value less than 1 ohm required for equipment. Earthing will be made available on earthing bus bar on the wall in equipment room.	How many metres of Earthing cable to be considered. Please clarify.		Approx. distance is 15 metre from RailTel Bus Bar to the Rack.
71	Chapter-7	119	Cl.NO 7.4.1.1 - 1	The Contractor will take- over the defective cards/SFPs from RNOC/site where equipment is installed and hand-over the repaired card at the same location. The following activities will be performed by the contractor:	As a standard industry practise,Railtel has to ship the cards from their sites /NOCs to Supplier Repair Centre. After Repair Supplier Shall ship the repaired unit to customer location..Please clarify		Clause is clear.
72	Chapter-7	119	Cl.NO 7.4.1.1-3	There will be initial one time activity of all existing faulty cards being repaired by Contractor before commencement of the AMC. AMC will cover only equipments which are in working condition.	Railtel to provide list of existing faulty cards before commencement of AMC.Once received Tejas will verify the cards are repairable or non repairable.Railtel should not send any burnt/damage/Water Seepage cards to Tejas, in case any cards received by Tejas in burnt/Physical damage condition, Tejas will return back such cards in same condition. A card will be considered burnt/physically broken if it is so visible to naked eye or with tests at Lab/equipment's.Physical inspection +logistics cost +Taxes Per card to be paid if card is declared as not repairable.Separate R&R quote will be provided for these repairable cards and then once PO received cards will be repaired. Is the understanding correct, please confirm.		Clause is clear.
73	Chapter-7	119	Cl.NO 7.4.1.1-4	The received defective part will be got repaired by the contractor within 30 days from the date of receiving and will be installed/handed over to RailTel authorized representative at NOC/site. The contractor will also give probable reason for repeated failure of cards/ modules.	R&R TAT is 30 calender days.Tejas shall repair the defective product/Card/Module and ship it back to Railtel within 30 calender days Turnaround Time (TAT) from the date of product/Card/module received at Tejas repair center. Please clarify		Clause is clear.
74	Chapter-7	120	Cl.NO 7.4.2	If any part goes beyond repair due to Contractor at the time of repair being carried out, this is to be communicated to RailTel and after agreed upon, it will be labeled as "unworkable". If it will be required to deploy a new part on that location that will be provided by the contractor to RailTel free of cost. To achieve this, contractor is required to always keep adequate spares with it during the period of AMC. However, this excludes damaged, spoiled, rusted or misused parts. Any such parts will be not-repairable and no replacements shall be provided by contractor. RailTel will have to purchase fresh spares in case the cards are non repairable due to these reasons.	Please consider along with damaged,spoiled and rusted or misued parts water seepage, burnt/Physical damage condition should also be considered as part of not repairable parts.		As per tender document
75	Chapter-7	120	Cl.NO 7.5.2	**Duration of Repair - Deduction/Penalties** 1.More than 30 days and upto 40 days (from the date of receipt) part/module — 1.10% of the cost of affected 2.More than 40 days and upto 50 days (from the date of receipt) part/module — 2.25% of the cost of affected 3.More than 50 days and upto 60 days (from the date of receipt) part/module — 3.75% of the cost of affected 4.More than 60 days (from the date of receipt) part/module — 4.Full cost of affected	Ideally the penalty % should be AMC cost of the affected part/module. Penalty % is of AMC cost of the affected part/module or Supply cost of the affected part/module.Please clarify		Clause is clear.
76	CHAPTER- 5 BID DATA SHEET (BDS)	79	Tender Notice	Last date & time of submission of offer (Online) Date: 09.09.2024 and Time: 15:00 hours	Since it is a solution based tender, We request you kindly provide good time to workout on solution. Request to consider extension request of minimum 4 week from the date of prebid queries response from Railtel.		Please see Corrigendum-I
77	Chapter-4	70	4.A.44	Compliance for procurement of Telecommunication equipment from trusted sour	As per our understanding, OEM shall obtain Trusted Source certificate as a company as well as for the quoted product/technology by NSCT. Trusted Source is for the company and trusted product is for individual product should certified. Pls clarify.		Clause is clear.
78	Chapter-4	70	4.A.45	Offered equipment should comply Mandatory Testing and Certification of Telecommunications equipment (MTCTE). MTCTE certificate for the offered equipment shall be submitted by the bidder.	As per TEC, All products MTCTE certificate is mandetory and should be approved before Aug 2024. Our understanding is to submit MTCTE at the time of bidding for all OEMs. Kindly advice.		Please refer clause 3.A.3.5-10(F) (SN-4 & 6) of tender document
79	Chapter-3	20	Clause F point 4&6	 |	| IP MPLS | OTN | | 4 | Certification | Offer product should have MTCTE at time of delivery of product. | Offer product should have MTCTE at time of delivery of product. | | 6 | Trusted Telecom Portal (TTP) | OEM Should be listed in Trusted Telecom Portal and offered product should be Trusted Products on TTP at the time of delivery of product. | OEM Should be listed in Trusted Telecom Portal and offered product should be Trusted Products on TTP at the time of delivery of product. |	As per Our understanding, OEM should have MTCTE and Trusted Source certificate at the time of participating in tender as per mendetory cluase of government of india. In this clause, It is mentioned "at the time of delivery of product" on IP MPLS and OTN technology solution and not clear for DWDM technology. Please clarify and request to bidder to submit certificate during tender participation.		As per clause. Also refer clause 4.A.44 & 4.A.45 of tender document.

80	Chapter-4	43	4.A.12	Qualification Criteria : Qualifying criteria under this clause lays down minimum acceptable qualifications in various areas to ensure that qualified bidder has necessary experience, technical expertise, equipment and financial and human resources to successfully complete the project. Bids from bidder not meeting these qualification criteria may liable to be rejected. Bids from the consortia of tenderers and Joint Ventures meeting the below defined Qualification criteria would also be considered for award of work. The Tenderer/bidder should be an Original Equipment Manufacturer (OEM) or authorized representative of OEM specifically authorized by OEM for bidding in this tender.	Pls confirm if our understanding is correct and consider. Whether an OEM can authorize to partner to bid their product in case OEM is also bidding. And One OEM can authorize only one partner to bid their product in case OEM is not bidding. Pls clarify.		OEM can not authorize its partner to bid in case OEM is bidding directly. OEM can authorize more than one partner to bid if OEM is not bidding directly.
81	CHAPTER- 5 BID DATA SHEET (BDS)	79	Clause 4.A.18.1, Chapter-4A	Purchaser's Right to Vary Quantities: (A) Upto maximum extent of +/- 50% subject to following condition i.Upto +25% with no rebate. ii.From +25% to +40% with 2% rebate iii.From +40% to +50% with 4% rebate (B) For variation beyond +50% of the quantity mentioned in the SOR may be done after proper negotiation with the selected bidder.	We request you to kindly update the timeline on issue variation PO against the main LOA of Railtel to bidder.		As per tender document
82	4.A.12.2 Eligibility Criteria Requirements for Bidders	45	Point Number 5 of Eligibility Criteria requirement for Bidders	The Bidder or their promoters having equity stake or operating partnership in bidder, should not be holding valid License for Telecom service provider/ISP/ NLD, Services License of Government of India for Telecom Operation.	It is Understood that this clause is not applicable for the PSUs working under the department of telecommunication. Please Clarify.		Clause is clear.
83	4.A.12.3	48	2 (i) and 2 (ii)	2 (i) The Equipment offered by the tenderer or equipment of the same series/family (an undertaking by the OEM has to be submitted in support in case of immediate predecessor) from the same OEM should have been satisfactorily working in Government/ PSUs/Telecom Service Providers network for 100G deployment of DWDM system for minimum length of 500 Kms for at least 12 months as on date of opening of tender, in India or Abroad. 2 (ii) The Equipment offered by the tenderer or equipment of the same series/family (an undertaking by the OEM has to be submitted in support in case of immediate predecessor) from the same OEM should have been satisfactorily working in Government/ PSUs/Telecom Service Providers network for 100G Alien wavelength deployment in live network over 3rd party DWDM network for minimum length of 500 Kms for at least 12 months, in India or Abroad. (4 Annexures attached)	C-DOT being a premier Telecom R&D organization of Govt of India is keen to participate in this tender. We have field tested, TEC certified DWDM system and Field Trials/PoC have also been conducted in various networks; BSNL, MTNL, Railtel & Defence Networks (pls. refer Annexures 1 to Annexure 3). It may also be noted that Secretary (Telecom) has already issued a D.O. letter to the secretaries of different departments: No. 18-16/2023/S-I, Dated 8th December 2023 (Attached), requesting to consider giving orders for telecom products to C-DOT on the nomination basis to promote indigenous and secure telecom technology products (pls. refer Annexure4). We hereby request for exemption from the above-mentioned eligibility conditions to allow C-DOT through its Technology partners, to participate in the tender. As a premier telecom R&D centre of Department of Telecommunication under the Ministry of Telecommunication, Government of India, C-DOT may also be considered to issue PO on the nomination basis please. However, field trial/POC of the DWDM equipment, in the desired configuration may be conducted before placing of PO.		Eligibility criteria should meet by the Original Equipment Manufacturer (OEM)
84	4.A.12.3	48	3	OEM should have supplied the equipment/software offered or equipment/software of the same series/family at least of the value Rs. 11.00 Cr during last preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid to Government /PSUs / Telecom Service Providers."			
85	3.A.3.2 Following photonic shall support- Point 8	14		The bidder shall consider fiber losses 3 dB fiber repair margin.	Please confirm, fiber loss 0~50 KM. total fiber loss 28 db is EOL (end of Life) and 50~80 KM. 32 db is EOL (end of Life), 3 db. fiber repair margin.		Proposed Amplifiers (A to B Locations) at both sides for sections (0 to 49 Km distance) should be capable to cater 28 db fiber section loss for 8 Channel system design and for sections (50 to 80 Km distance) should be capable to cater 32 db fiber section loss for 8 Channel system design. However Proposed DWDM system shall be designed with following losses 1.The DWDM system shall be designed based on total distance in kilometres as specified in Annexure III. Not specified distance of section may be considered 60km. 2.CSTM Section route shall be designed with a 1db/km + 3db repair margin. 3.Other sections shall be designed with 0.45db/km + 3db repair margin. 4.Maximum fiber loss can be considered 32 db per span per section (including 3db repair margin). 5.In case actual losses in the section is more than 30db at the time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers shall be arranged

86	3.A.3.2 Following photonic shall support- Point 3.A.3.3-b	14		For Alien wavelength, 10/100G Traffic matrix shall be designed and provisioned as per Annexure-II (Network topology) and Annexure-III (Link details) of tender. For 100G over Alien wavelength, bidder to considered (for designed purpose) minimum back-to-back OSNR sensitivity of -17 db or better at 100G line rate on 40 Channel system in between two locations of traffic matrix. For 10G over alien wavelength, shall be designed with a 0.5 db/km section loss + 3db repair margin (in case of km mentioned) otherwise OEM should consider repeater (OEO) at each OADM locations as per Annexure-II (Network topology). In case of actual losses/OSNR are more at that time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers & Transponder (If required) shall be arranged by RailTel through variation in existing contracts.	As detail mentioned in 17 B, 10G Transponder/Muxponder (Optional and as per proposed Solution) is optional, bidder can select the technology that is best fit for the network.		Please see corrigendum-1
87	3.A.3.5 DWDM System - Point vi	15		For the optical connectors used on the equipment side the 'Optical Return Loss' of these connectors shall be better than 50 dB.	As we understand optical connectors used on the equipment side is the DWDM client side, please confirm.		Tender condition is very Clear
88	3.A.3.5 DWDM System -Point xv	15		All DWDM System (OADM, ILA-OADM & ILA) should have facilities to support external alarm (potential free contact events) through inbuilt system.	Please confirm, critical sites are OADM sites where external alarm supports are required, for those locations, proposed solution should have facilities to support external alarm (potential free contact events).		Tender condition is very Clear
89	3.A.3.5 DWDM System- Point 2 Power supply	16		Bidder/OEM should provide external system (-48V DC power supply operated) for monitoring of Power supply (Main supply failure and Battery voltage) through ethernet port and option for Mobile SIM. RailTel will provide ethernet ports or Mobile SIM at each site for the same.	Please confirm, critical sites are OADM sites where external alarm supports are required, for those locations, proposed solution should have facilities to support external alarm (potential free contact events).		Tender condition is very Clear
90	3.A.3.5 DWDM System- Point 5	16		Protection switching shall on Line port of 100/200G be triggered (50 ms) based on Loss of Signal, signal degrade, Pre-FEC BER Signal Failure and OSNR/Q factor signal degrade (if required).	As we understand DWDM protection switching (Signal failure) should be with in 50 ms. And also for Alien connectivity bidder needs to provide protection card accordingly.		Please see corrigendum-1
91	3.A.3.5 DWDM System- Point i.	17		OSNR/ESNR	As we understand, OSNR detail needs to be submitted along with link designing during the bid submission in the proposed solution design as an indicative parameter.		The Bidder should submit complete link engineering details calculations considering margins. This should also include the expected End to end OSNR values, Residual dispersion value, Optical power transmit/receive, Q-factor/BER values (with EOL and BOL parameters). It should be a part of the technical proposal that the offered system meets the performance requirement for the given spacing and spans. The RailTel shall conduct a field evaluation to authenticate the same.
92	10. Traffic requirements- Point ii	17		It should provide Physical client ports for QSFP28 pluggable modules to transport 100GbE client signals.	Please confirm It should be LR single rate QSFP28 pluggable modules to transport 100GbE client signals		All the Client side interface should be equiped with LR single rate.
93	11. Optical Amplifier/ILA characteristic-point iv	21		Proposed Amplifiers (A to B Locations) at both sides for sections (0 to 50 Km distance) should be capable to cater 28 db fiber section loss for 8 Channel system design and for sections (50 to 80 Km distance) should be capable to cater 32 db fiber section loss for 8 Channel system design. Proposed Amplifiers for ILA should also be supported as Pre-amplifiers in case required at ILA-OADM & OADM Locations.	Please confirm that for distances of 0 to 50 km, a loss of 28 dB should be used, and for distances of 50 to 80 km, a loss of 32 dB should be applied to calculate the dB/km loss. The actual fiber loss shall be calculated based on the total distance in kilometers as specified in Annexure III. and also please confirm 3db fiber margin is included in given fiber losses in this clause.		Please see corrigendum-1
94	11. Optical Amplifier/ILA characteristic-point iv	21		Proposed Amplifiers (A to B Locations) at both sides for sections (0 to 50 Km distance) should be capable to cater 28 db fiber section loss for 8 Channel system design and for sections (50 to 80 Km distance) should be capable to cater 32 db fiber section loss for 8 Channel system design. Proposed Amplifiers for ILA should also be supported as Pre-amplifiers in case required at ILA-OADM & OADM Locations.	Please confirm if fiber losses are more than 80KM. Railtel will support to provide fiber losses within 32 db. section loss.		Please see corrigendum-1
95	11. Optical Amplifier/ILA characteristic-point v	21		At OADM, Bidder should propose both Booster & Pre-Amp at each direction.	Please confirm based on the link engineering (fiber loss and fiber distance), ampliifer required for the link shall be used.		Tender condition is very Clear . No change is proposed.
96	11. Optical Amplifier/ILA characteristic-point vi	21		Bidder/OEM can propose with or without amplifiers based on span loss requirement at FOADM Sites.	Please confirm Bidder/OEM can propose with or without amplifiers based on span loss requirement at FOADM, OADM, ILA-OADM Sites.		Tender condition is very Clear . No change is proposed.
97	19. RailTel Solution Requirements- point 2	23		The Power supply and other traffic impacting controller cards should be fully Redundant for hitless switchover and hitless forwarding.	As we understood power cards should be redundent and during power fail switch over it should not affect on controller cards, and controller card be single. Please confirm		Yes, Redundant controller card should not be required in case of non impact traffic.
98	19. RailTel Solution Requirements- point 6	23		Channel Protection support	As we understood proposed equipment should have capability to support the protection as asked by adding additonal HW, please confirm		The protection scheme (as per offered solution) as below shall not interrupt or affect the existing traffic during switchover 1 Channel Protection support 2 Port Protection support 3 Client Protection support
99	19. RailTel Solution Requirements- point7	23		Port Protection support	As we understood proposed equipment should have capability to support the protection as asked by adding additonal HW, please confirm		

100	19. RailTel Solution Requirements-point 8	23		Client Protection support	As we understood proposed equipment should have capability to support the protection as asked by adding additonal HW, please confirm		
101	19. RailTel Solution Requirements-point 25	24		All common critical cards for Controller, Management, Switch & Power of the equipment shall be "hot swappable".	Please confirm controller card can be provided single.		Yes, Redundant controller card should not be required in case of non impact traffic.
102	19. RailTel Solution Requirements-point 41	25		100G Client should support Ethernet and OTN encapsulation and mapping in QSFP28 (all LR types) form factor modules.	Please confirm It should be LR single rate QSFP28 pluggable modules to transport 100GbE client signals		All the Client side interface should be equiped with LR single rate.
103	Materials and Environment Protectio-Point 21	25		The product shall be compliant to: Product shell be compliant to RoHS (Restriction of certain Hazardous Substances) requirements: - European Union (EU) Directive 2002/95/EC (lead-free design should be a long-term goal)	As we understand OEM needs to follow latest version of ROHS, 2011/65/EU including 2015/863/EU on the restriction of the use of hazardous substances (RoHS) to comply please confirm		The product shall be compliant to: Product shell be compliant to RoHS (Restriction of certain Hazardous Substances) requirements: - European Union (EU) Directive 2002/95/EC (lead-free design should be a long-term goal) or equivalent
104	Annexure IV	150		Page 150-Network Diagram (WR-KRCL-Panvel-Ratnagiri-Madgaon) Page 164-Traffic Matrix Annexure IV	Route has 46 nodes in that there are maxiumum nodes are FOADM and ILA OADM, but traffic matrix shows only 5 x 100G traffic requirement. But MUX/DEMUX needs to be provided for all location (as these sites are FOADM/ILA-OADM), this makes network panelty very high. Request to Railtel please review the links so that network penalty can be reduced by optimize the network.		Please see corrigendum-1
105	Annexure III	161		Network Diagram & Annexure IV Network WR: Ratlam-Kota	There are few link where network fiber length is missing, please support to provide the same.		Please see corrigendum-1
106	4.A.12.3 Eligibility Criteria Requirements for OEM's:	48		Under 'Eligibility Criteria Requirements section - Supporting Document Required '-Satisfactory Working Performance of the same series/family from the same OEM by the user is required to be submitted for i & ii and it should be issued during last one year from the date of opening of Tender.	Purchase order from the customer are governed by Non-Disclosure Agreement (NDA). Thus, it will be a challenge for us to submit it to meet this clause. However, we request you to allow us to submit a self declaration undertaking with the details of the project and customer contacts as mentioned in the purchase order, to meet this RFP requirement.		As per tender document
107	3.A.3.5 / 10 / F	18		iii. All 10G and 100G interfaces should support LR & ER in case required; v. 10/100G Interface through breakout cable is acceptable and the device should be equipped with required optics & cable (3M)	As per clause (v), breakout is allowed, kindly modify the clause as follows: iii. All 10G and 100G interfaces should support SR / FR/ DR in case required;		Please see corrigendum-1
108	3.A.3.5 / 10 / G	20		For Panvel to Madgaon (Goa) section, Bidder can propose SFPs based solution on existing switches/Routers of RailTel for 2x10G traffic (dropping at each station) in place of Transponder based solution as per the requirement of traffic matrix placed at Annexure-V. SFPs should be supported on D-Links, Edgecore, Watchdog, Cisco, Juniper and Techroute Switches/Routers	Kindly elaborate the requirement as how many SFPs are required per location.		Please see corrigendum-1
109	3.A.3.5 / 10 / H	20		For the Panvel to Madgaon (Goa) section, Bidder can also propose SFPs based solution on existing SDH Equipment of RailTel for 1xSTM-16 traffic (dropping at each station) in place of Transponder based solution as per the requirement of traffic matrix placed at Annexure-V. SFPs should be supported on Tejas Equipment's of TJ1270, TJ 1400 & TJ 1600	Kindly elaborate the requirement as how many SFPs are required per location.		Please see corrigendum-1
110	3.A.3.5 / 23 Environmental Requirements	26		The product shall meet following standards and regulations: a. Generic requirements defined in ETS 300 019 (environmental cri-teria) b. NEBS level 3 c. Telcordia GR-3028-CORE: Thermal Management, Telecommunication Central Office d. Operation: ETS300 019 Class 3.1 e. Transport: ETS300 019 Class 2.2 f. Storage: ETS300 019 Class 1.1 g. EN300386 Telecommunication centres	Kindly allow equivalent standards and modify the clause as follows: The product shall meet following or equivalent standards and regulations-		Please see corrigendum-1
111	3.A.3.5 / 24 Electromagnetic Compatibility	26		Compliance with following requirements has to be assured: ETSI EN 300 386-2: EMC requirements for Telecommunication network equipment.	Kindly allow equivalent standards and modify the clause as follows: Compliance with following requirements or equivalent has to be assured:		Please see corrigendum-1

112	4.A.12.3 Eligibility Criteria Requirements for OEM's: Pt#3)	49		OEM should have supplied the equipment/software offered or equipment/software of the same series/family at least of the value Rs. 11.00 Cr during last preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid to Government /PSUs / Telecom Service Providers. OEM should submit selfcertificate with proper contact detail of clients along with PO reference and amount supplied (Firm Name, Contact person, Designation, Telephone Number, Fax, Official mail id etc.). The same should be issued by authorized signatory. • The copy of Purchase Order is mandatorily required as supporting document.	Since end-user POs are governed under NDA, we request to remove the end-customer PO requirement: "OEM should have supplied the equipment/software offered or equipment/software of the same series/family at least of the value Rs. 11.00 Cr during **last preceding 5 financial years** (i.e. current year and three previous financial years) as on opening of bid to Government /PSUs / Telecom Service Providers **globally**. OEM should submit selfcertificate with proper contact detail of clients along with PO reference and amount supplied (Firm Name, Contact person, Designation, Telephone Number, Fax, Official mail id etc.). The same should be issued by authorized signatory. • The copy of **OEM self-signed undertaking** is required as supporting document."		As per tender document
113	Annexure-IV WR: KRCL: PanvelRatnagiriMadgaon	164		100G & STM-16	Kindly elaborate the requirement.		Bidder/OEM should provide 100G & STM-16 traffic as per Annexure-IV .Bidder/OEM can also use proposed point to point 100/200G Links (against the requirement of traffic matrix as per annexure-IV) to provision services of STM-4/STM16/10G.
114	TRAINING OF PURCHASER'S PERSONNEL	27		40 days man week training on the equipment and network operation shall be provided by the Tenderer to RailTel in RailTel/OEM/Bidder premises with no cost to RailTel.	Please confirm the number of people required as Nokia recommend 8-10 participants per batch and also please confirm the mode of training i.e. Classroom or remote.		40 people to be trained with batch size of 10 Peoples
115					We are requesting to you under MSME Registration please provide 100% exemption for EMD and 50% Exemption for Financial criteria eligibility.		Exemption to MSE is not applicable in works tender.
116	3.A.2	12	OVERVIEW OF THE SCOPE OF WORK	The scope of work would be System Design, Supply of Equipment at various sites/locations of RailTel. The scope includes installation, testing, commissioning & acceptance of the Muxponder System Network including integration with the existing NOC/OSS system by providing standard northbound API's from supplied controller for management of devices. The scope of work shall include, but not be limited to the following: Project Management, Supply of all related goods and providing all related services including custom clearance if required, transportation, installation, testing, commissioning & AT of the telecom system and training of RailTel personnel.	EMS should supports SOAP based Northbound Interface which can be used for integration with the existing NOC/OSS system . Same shall be verified .		Tender condition is very clear
117	3.A.3 & 3A	12	3.A.3.1 Traffic C	Parameter 1: Reach (Km) with 100G over DWDM Network (with DCM)	Kindly provide the insertion loss of DCM and WSS if used.		Following Insertion loss may be considered 1.DCM-60km --4 db 2.WSS-- 6db.
118	3.A.3 & 3A	13	3.A.3.1 / 4	Amplifier Noise Figure i. Line A: 5.5dB ii. Line B: ~ 5-10 dB	kindly elaborate on Line A and Line B. Also clarify which value of noise figure need to be considered for caluculation in case of Line B.		Tender condition is very clear.
119	3.A.3 & 3A	13	3.A.3.2 / 4	RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning.	OADM is a purely optical direction unit of DWDM. So here mentioned space and power is only for OADM and trafiic cards will get extra power and space. Kindly confirm.		Maximum Rack unit size and Power will be applicable for complete solution including Transponder, optical layer ,OTN & IP-MPLS solution.
120	3.A.3 & 3A	13	3.A.3.2 / 5	-48 Volt DC Power Supply will be made available by RailTel (For the OADM System 300W per direction and 250W per ILA/ILA-OADM) in the existing rack. Bidder shall provide MCB of required capacity as per their equipment. In case the offered equipment requires more power supply, in that case bidder shall provide DC Charger (N+1 SMR redundancy) and battery bank of the required capacity and same should be from approved make/model from RDSO/TEC. Two sets of 48 Volt DC Charger (Minimum 75 A with N+1 SMR redundancy) & Battery bank (Minimum 300AH, Li-ION) at locations should be provided & installed by bidder with no additional cost to RailTel. Page 14 of 177	OADM is a purely optical direction unit of DWDM. So here mentioned power is only for OADM and trafiic cards will get extra power. Kindly confirm.		Maximum Rack unit size and Power will be applicable for complete solution including Transponder, optical layer ,OTN & IP-MPLS solution.
121	3.A.3.5	15	1(iii)	Optical monitoring as per ITU-T Rec.G.697 should be supported at all nodes through EMS or Controller.	How many days of performance history data shall be maintained by EMS ?		6 Months may be considered
122	**3.A.3.5**	15	1. xii	System shall be built in such a manner that it should work with existing DWDM network based on above parameters and **supplied SDN Controller** should provide latest APIs, which shall further facilitate multivendor interoperability. System shall support configuration management, open APIs, and standards-based SNMP/YANG models. These management features should be available at no cost to RailTel.	Is it mandatory to supply SDN controller or any of EMS/NMS/SDN controller may be supplied. Please confirm.		Please see corrigendum-1
123	3.A.3 & 3A		3.A.3.5 / 1 (ix)	DWDM Network should be designed without Dispersion Compensation Module (DCM).	Please provide the maximum span length for 10G DWDM channel.		As per traffic matrix.
124	3.A.3 & 3A	17	3.A.3.5 / 10A(iii)	Traffic Line system should support fixed optics full C-band tunability (DWDM flex grid frequencies).	Pluggable Optics should also be considered, as 100G/200G coherent optics are available in pluggable form.		Please see corrigendum-1
125	3.A.3 & 3A	17	3.A.3.5 / 10B(iii)	Bidder/OEM shall propose MUXPONDER that should support minimum 4 channel of 10GbE and 4 x 10GBE client.	LIne side 10G OTU2 channel in place of 10GBE should be allowed in Transponder. Please confirm. Please clarify the configuration for Muxponder.		Please see corrigendum-1

126	3.A.3 & 3A	17	3.A.3.5 / 10B(xi)	The bidder needs to provide a minimum of 2x10G DWDM line SFP+ (OTU2/OTU2e) with full C-band tunability (DWDM flex grid frequencies) and 4 x10G client SFP+ (LR).	Please clarify the configuration of Muxponder and Transponder explicitly.		The Bidder/OEM can propose DWDM with Optical ASON or IP-MPLS Router or Transponder/Muxponder or OTN Switch or optical protection module-based equipment/Card/Module or combinations for services of 100G/200GSTM-4/STM-16/10G.Bidder/OEM should propose the Configurations of equipment based on their soloution , However minimum Configurations has been defined in Tender for Transponder ,OTN & IP-MPLS solution.
127	3.A.3 & 3A	21	3.A.3.5 / 11(iv)	Proposed Amplifiers (A to B Locations) at both sides for sections (0 to 50 Km distance) should be capable to cater 28 db fiber section loss for 8 Channel system design and for sections (50 to 80 Km distance) should be capable to cater 32 db fiber section loss for 8 Channel system design. Proposed Amplifiers for ILA should also be supported as Pre amplifiers in case required at ILA-OADM & OADM Locations.	These span losses are inclusive of all margins with span loss. Please confirm.		Please see corrigendum-1
128	3.A.3 & 3A	21	3.A.3.5 / 12(iv)	ILA sites are equipped with a minimum of 1 Nos. of Channel Mux/De-mux (minimum) at each direction and should also have an express port to pass through channels, if it's not dropping in between nodes.	We assume ILA should be without any Add/Drop of channel. Please confirm.		Please see corrigendum-1
129	3.A.3 & 3A	24	3.A.3.5 / 19 (28)	The Bidder shall describe details of the equalization process during tender submission.	Please elaborate the requirements related to equalization.		Tender condition is very clear.
130	3.A.3 & 3A	26	3.A.3.5 / 23	Environmental Requirements The product shall meet following standards and regulations: a. Generic requirements defined in ETS 300 019 (environmental cri-teria) b. NEBS level 3 c. Telcordia GR-3028-CORE: Thermal Management, Telecommunication Central Office d. Operation: ETS300 019 Class 3.1 e. Transport: ETS300 019 Class 2.2 f. Storage: ETS300 019 Class 1.1 g. EN300386 Telecommunication centres	In view of Indian conditions, the telecom equipments should be complied to TEC QM-333 requirements and hence should be considered as fullfilling tender conditions. please confirm.		Please see corrigendum-1
131	3.A.3 & 3A	26	3.A.3.5 / 24	Compliance with following requirements has to be assured: ETSI EN 300 386-2: EMC requirements for Telecommunication network equipment.	EMC compatibility requirement shall be as per latest IEC/CISPR 32 or EN 55032. Please confirm.		Please see corrigendum-1
132	3.A.3 & 3A	26	3.A.3.5 / 25 (b)	It should be possible from remote to disable the communication port on the NE through NMS/controller/CLI	Which communication port is reffered here. Please clarify.		OSC
133	3.A.3 & 3A	16	3.A.3.5/3	Alarms: The following System related alarm conditions shall be reported by the EMS/Controller	How many days of alarm history data shall be maintained by EMS as it has implication on hardware configuration ? Please clarify.		6 Months may be considered
134	3.A.3 & 3A	16	3.A.3.5/6	The proposed system shall be managed by a single unified system/Controller with DC & DR (active location at Secunderabad and standby location at New Delhi) for all the active components. Bidder shall also propose Controller based Management System for managing system with DC & DR (active and standby). system with DC & DR (active and standby). All licenses required for Northbound and Southbound interface (API) should be equipped with offered solution at no additional cost to RailTel. Bidder/OEM can also leverage existing Management system deployed in RailTel, if the OEM shall provide undertaking for long term support for 8 years for all existing components irrespective of End of Life of the existing hardware/License/Software. Hardware/License/Software required for such up gradation shall be included in the price bid.	1: It is not clear whether the requirement of Controller is optional or mandatory . 2: Whether High availability (local) required at both active and standby data centers.Please confirm. 3 : EMS should support SOAP based Northbound Interface which can be used for integration with the existing NOC/OSS system . Kindly Confirm.		Yes ,Bidded/OEM can offer either NMS or EMS or SDN Controller for DWDM Equipments .
135	3.A.3.5	25	19 (48)	Proposed EMS/NMS/SDN Controller should have support to create service trail & physical path trail connectivity in between DWDM OADM Nodes. Proposed DWDM ODAM System should have facility to show alarm at physical Path trail & service layer trail on EMS/SDN Controller.	we assume either NMS or EMS or SDN Controller shall be supplied. Please confirm.		Yes ,Bidded/OEM can offer either NMS or EMS or SDN Controller.
136	4.A.12. Qualification Criteria	45	4.A.12.2 Eligibility Criteria Requirements for Bidders:/Point no.5	The Bidder or their promoters having equity stake or operating partnership in bidder, should not be holding valid License for Telecom service provider/ISP/ NLD, Services License of Government of India for Telecom Operation.	**Please clarify that this clause is not applicable to a subsidiary of the company or their promoters having equity stake or operating partnership in bidder remove this point.** Kindly Consider bidder itself should not hold a valid license as a Telecom Service Provider, ISP, NLD, or any services license issued by the Government of India for telecom operation		As per tender document

137	CHAPTER-4A	61	4.A.22. Earnest Money Deposit (EMD) and Cost of Tender Document	4.A.22.1 All the Bidders/OEM are required to deposit Tender Cost and EMD amount as mentioned in NIT and BDS through e-Nivida Portal as “Tender Cost” & “Earnest Money”. Tender cost and EMD in no other form shall be accepted. Offers without applicable EMD amount and tender cost shall be summarily rejected.	**The online portal offers three options for submitting the EMD:** **-Bank Guarantee (BG)** **-E-Payment** **-NEFT** **We kindly request you to provide the Bank Guarantee format along with the beneficiary details."(BG in favour of)**		**Emd amount is to be deposited online through eNivida portal.**
138	CHAPTER-4B	74	4.B.7 Submission of offline documents:	Original copy of following documents is needed to be submitted by the bidders offline before due date & time of submission of bids at RailTel Corporation of India Ltd., Institutional area, plot no. 143, Sector 44, Gurugram, Haryana. The packet containing the original copies should be sealed by the personal seal of the bidder. The envelop shall bear name of work, the tender no. and the words "DO NOT OPEN Before" (-due date and time -).	There is some potential discrepancy between clauses 4.B.7 and 4.C.4. Below are the clarification: **Clause 4.B.7: This clause states that the original copy of certain documents needs to be submitted to the Railtel office in Gurugram before the due date and time of bid submission.** **Clause 4.C.4: This clause indicates that all required documents should be submitted online. However, it also mentions that the original copy of the documents is required to be submitted by the successful bidder before the**	**It appears to be a conflict between the two clauses. Clause 4.B.7 implies that all bidders must submit original documents before the bid submission**	Bidders must submit original documents as mentioned in clause 4.B.7 of tender document before due date and time of bid submission. Please see Corrigendum-I.
139	CHAPTER-4C	78	4.C.4 SUBMISSION OF BIDS:	Note: Bidder has to submit all required document online only. Original copy is needed to be submitted by the successful bidder before due date and time of submission of bids.			Please see Corrigendum-I
140	CHAPTER-4B	73	b) “Price Bid” Shall contain	The price bid for “Schedule of requirements” as per Note of Chapter 2 along with “Bill of Material” (BOM) for each item quoted exactly according to the proforma, as also submitted along with “Technical Bid”. **Calculation of Local Content as per clause 4.A.41.1**, Chapter-4A.	**You are required the local content caclulation in financial bid.** **Request you to please provide the format of local content calculation sheet.**		Please refer FAQ as mentioned in clause 4.A.41.1 of tender document for calculation of local content. Calculation and details are to be provided accordingly.
141	CHAPTER-3A	14	3.A.3.2 Following photonic shall support- Point 8	The bidder shall consider fiber losses 3 dB fiber repair margin.	Please confirm, fiber loss 0~50 KM. total fiber loss 28 db is EOL (end of Life) and 50~80 KM. 32 db is EOL (end of Life), 3 db. fiber repair margin.		Proposed Amplifiers (A to B Locations) at both sides for sections (0 to 49 Km distance) should be capable to cater 28 db fiber section loss for 8 Channel system design and for sections (50 to 80 Km distance) should be capable to cater 32 db fiber section loss for 8 Channel system design. However Proposed DWDM system shall be designed with following losses 1.The DWDM system shall be designed based on total distance in kilometres as specified in Annexure III. Not specified distance of section may be considered 60km. 2.CSTM Section route shall be designed with a 1db/km + 3db repair margin. 3.Other sections shall be designed with 0.45db/km + 3db repair margin. 4.Maximum fiber loss can be considered 32 db per span per section (including 3db repair margin). 5.In case actual losses in the section is more than 30db at the time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers shall be arranged
142	CHAPTER-3A	14	3.A.3.2 Following photonic shall support- Point 3.A.3.3-b	For Alien wavelength, 10/100G Traffic matrix shall be designed and provisioned as per Annexure-II (Network topology) and Annexure-III (Link details) of tender. For 100G over Alien wavelength, bidder to considered (for designed purpose) minimum back-to-back OSNR sensitivity of -17 db or better at 100G line rate on 40 Channel system in between two locations of traffic matrix. For 10G over alien wavelength, shall be designed with a 0.5 db/km section loss + 3db repair margin (in case of km mentioned) otherwise OEM should consider repeater (OEO) at each OADM locations as per Annexure-II (Network topology). In case of actual losses/OSNR are more at that time of commissioning of Network, RailTel will either improve the section losses or New ILAs, Amplifiers & Transponder (If required) shall be arranged by RailTel through variation in existing contracts.	As detail mentioned in 17 B, 10G Transponder/Muxponder (Optional and as per proposed Solution) is optional, bidder can select the technology that is best fit for the network.		Please see corrigendum-1
143	CHAPTER-3A	15	3.A.3.5 DWDM System - Point vi	For the optical connectors used on the equipment side the ‘Optical Return Loss’ of these connectors shall be better than 50 dB.	As we understand optical connectors used on the equipment side is the DWDM client side, please confirm.		Tender condition is very Clear
144	CHAPTER-3A	15	3.A.3.5 DWDM System -Point xv	All DWDM System (OADM, ILA-OADM & ILA) should have facilities to support external alarm (potential free contact events) through inbuilt system.	Please confirm, critical sites are OADM sites where external alarm supports are required, for those locations, proposed solution should have facilities to support external alarm (potential free contact events).		Tender condition is very Clear
145	CHAPTER-3A	16	3.A.3.5 DWDM System- Point 2 Power supply	Bidder/OEM should provide external system (-48V DC power supply operated) for monitoring of Power supply (Main supply failure and Battery voltage) through ethernet port and option for Mobile SIM. RailTel will provide ethernet ports or Mobile SIM at each site for the same.	Please confirm, critical sites are OADM sites where external alarm supports are required, for those locations, proposed solution should have facilities to support external alarm (potential free contact events).		Tender condition is very Clear

146	CHAPTER-3A	16	3.A.3.5 DWDM System- Point 5	Protection switching shall on Line port of 100/200G be triggered (50 ms) based on Loss of Signal, signal degrade, Pre-FEC BER Signal Failure and OSNR/Q factor signal degrade (if required).	As we understand DWDM protection switching (Signal failure) should be with in 50 ms. And also for Alien connectivity bidder needs to provide protection card accordingly.		For Protected services of 100G ,Protection switching shall on Line port of 100/200G be triggered (50 ms) based on Loss of Signal, signal degrade, Pre-FEC BER Signal Failure and OSNR/Q factor signal degrade. This is applicable for both Alien and New MDWDM connectivity.
147	CHAPTER-3A	17	3.A.3.5 DWDM System- Point i.	OSNR/ESNR	As we understand, OSNR detail needs to be submitted along with link designing during the bid submission in the proposed solution design as an indicative parameter.		The Bidder should submit complete link engineering details calculations considering margins. This should also include the expected End to end OSNR values, Residual dispersion value, Optical power transmit/receive, Q-factor/BER values (with EOL and BOL parameters). It should be a part of the technical proposal that the offered system meets the performance requirement for the given spacing and spans. The RailTel shall conduct a field evaluation to authenticate the same.
148	CHAPTER-3A	17	10. Traffic requirements-Point ii	It should provide Physical client ports for QSFP28 pluggable modules to transport 100GbE client signals.	Please confirm It should be LR single rate QSFP28 pluggable modules to transport 100GbE client signals		All the Client side interface should be equiped with LR single rate.
149	CHAPTER-3A	21	11. Optical Amplifier/ILA characteristic-point iv	Proposed Amplifiers (A to B Locations) at both sides for sections (0 to 50 Km distance) should be capable to cater 28 db fiber section loss for 8 Channel system design and for sections (50 to 80 Km distance) should be capable to cater 32 db fiber section loss for 8 Channel system design. Proposed Amplifiers for ILA should also be supported as Pre-amplifiers in case required at ILA-OADM & OADM Locations.	Please confirm that for distances of 0 to 50 km, a loss of 28 dB should be used, and for distances of 50 to 80 km, a loss of 32 dB should be applied to calculate the dB/km loss. The actual fiber loss shall be calculated based on the total distance in kilometers as specified in Annexure III. and also please confirm 3db fiber margin is included in given fiber losses in this clause.		Please see corrigendum-1
150	CHAPTER-3A	21	11. Optical Amplifier/ILA characteristic-point iv	Proposed Amplifiers (A to B Locations) at both sides for sections (0 to 50 Km distance) should be capable to cater 28 db fiber section loss for 8 Channel system design and for sections (50 to 80 Km distance) should be capable to cater 32 db fiber section loss for 8 Channel system design. Proposed Amplifiers for ILA should also be supported as Pre-amplifiers in case required at ILA-OADM & OADM Locations.	Please confirm if fiber losses are more than 80KM. Railtel will support to provide fiber losses within 32 db. section loss.		Please see corrigendum-1
151	CHAPTER-3A	21	11. Optical Amplifier/ILA characteristic-point v	At OADM, Bidder should propose both Booster & Pre-Amp at each direction.	Please confirm based on the link engineering (fiber loss and fiber distance), ampliifer required for the link shall be used.		Tender condition is very Clear
152	CHAPTER-3A	21	11. Optical Amplifier/ILA characteristic-point vi	Bidder/OEM can propose with or without amplifiers based on span loss requirement at FOADM Sites.	Please confirm Bidder/OEM can propose with or without amplifiers based on span loss requirement at FOADM, OADM, ILA-OADM Sites.		Tender condition is very Clear
153	CHAPTER-3A	23	19. RailTel Solution Requirements-point 2	The Power supply and other traffic impacting controller cards should be fully Redundant for hitless switchover and hitless forwarding.	As we understood power cards should be redundent and during power fail switch over it should not affect on controller cards, and controller card be single. Please confirm		Yes, Redundant controller card should not be required in case of non impact traffic.
154	CHAPTER-3A	23	19. RailTel Solution Requirements-point 6	Channel Protection support	As we understood proposed equipment should have capability to support the protection as asked by adding additonal HW, please confirm		The protection scheme (as per offered solution) as below shall not interrupt or affect the existing traffic during switchover 1 Channel Protection support 2 Port Protection support 3 Client Protection support
155	CHAPTER-3A	23	19. RailTel Solution Requirements-point7	Port Protection support	As we understood proposed equipment should have capability to support the protection as asked by adding additonal HW, please confirm		
156	CHAPTER-3A	23	19. RailTel Solution Requirements-point 8	Client Protection support	As we understood proposed equipment should have capability to support the protection as asked by adding additonal HW, please confirm		
157	CHAPTER-3A	24	19. RailTel Solution Requirements-point 25	All common critical cards for Controller, Management, Switch & Power of the equipment shall be "hot swappable".	Please confirm controller card can be provided single.		Yes, Redundant controller card should not be required in case of non impact traffic.
158	CHAPTER-3A	25	19. RailTel Solution Requirements-point 41	100G Client should support Ethernet and OTN encapsulation and mapping in QSFP28 (all LR types) form factor modules.	Please confirm It should be LR single rate QSFP28 pluggable modules to transport 100GbE client signals		All the Client side interface should be equiped with LR single rate.
159	CHAPTER-3A	25	Materials and Environment Protectio-Point 21	The product shall be compliant to: Product shell be compliant to RoHS (Restriction of certain Hazardous Substances) requirements: - European Union (EU) Directive 2002/95/EC (lead-free design should be a long-term goal)	As we understand OEM needs to follow latest version of ROHS, 2011/65/EU including 2015/863/EU on the restriction of the use of hazardous substances (RoHS) to comply please confirm		The product shall be compliant to: Product shell be compliant to RoHS (Restriction of certain Hazardous Substances) requirements: - European Union (EU) Directive 2002/95/EC (lead-free design should be a long-term goal) or equivalent

160	Annexure-II & IV	150	Annexure IV	Page 150-Network Diagram (WR-KRCL-Panvel-Ratnagiri-Madgaon) Page 164-Traffic Matrix Annexure IV	Route has 46 nodes in that there are maxiumum nodes are FOADM and ILA OADM, but traffic matrix shows only 5 x 100G traffic requirement. But MUX/DEMUX needs to be provided for all location (as these sites are FOADM/ILA-OADM), this makes network panelty very high. Request to Railtel please review the links so that network penalty can be reduced by optimize the network.		Please see corrigendum-1
161	Annexure III	161	Annexure III	Network Diagram & Annexure IV Network WR: Ratlam-Kota	There are few link where network fiber length is missing, please support to provide the same.		Please see corrigendum-1
162	CHAPTER-4A	48	4.A.12.3 Eligibility Criteria Requirements for OEM's:	Under 'Eligibility Criteria Requirements section - Supporting Document Required '-Satisfactory Working Performance of the same series/family from the same OEM by the user is required to be submitted for i & ii and it should be issued during last one year from the date of opening of Tender.	Purchase order from the customer are governed by Non-Disclosure Agreement (NDA). Thus, it will be a challenge for us to submit it to meet this clause. However, we request you to allow us to submit a self declaration undertaking with the details of the project and customer contacts as mentioned in the purchase order, to meet this RFP requirement.		As per tender document
163	CHAPTER-3A	18	3.A.3.5 / 10 / F	iii. All 10G and 100G interfaces should support LR & ER in case required; v. 10/100G Interface through breakout cable is acceptable and the device should be equipped with required optics & cable (3M)	As per clause (v), breakout is allowed, kindly modify the clause as follows: iii. All 10G and 100G interfaces should support SR / FR/ DR in case required;		Please see corrigendum-1
164	CHAPTER-3A	20	3.A.3.5 / 10 / G	For Panvel to Madgaon (Goa) section, Bidder can propose SFPs based solution on existing switches/Routers of RailTel for 2x10G traffic (dropping at each station) in place of Transponder based solution as per the requirement of traffic matrix placed at Annexure-V. SFPs should be supported on D-Links, Edgecore, Watchdog, Cisco, Juniper and Techroute Switches/Routers	Kindly elaborate the requirement as how many SFPs are required per location.		Please see corrigendum-1
165	CHAPTER-3A	20	3.A.3.5 / 10 / H	For the Panvel to Madgaon (Goa) section, Bidder can also propose SFPs based solution on existing SDH Equipment of RailTel for 1xSTM-16 traffic (dropping at each station) in place of Transponder based solution as per the requirement of traffic matrix placed at Annexure-V. SFPs should be supported on Tejas Equipment's of TJ1270, TJ 1400 & TJ 1600	Kindly elaborate the requirement as how many SFPs are required per location.		Please see corrigendum-1
166	CHAPTER-3A	26	3.A.3.5 / 23 Environmental Requirements	The product shall meet following standards and regulations: a. Generic requirements defined in ETS 300 019 (environmental cri-teria) b. NEBS level 3 c. Telcordia GR-3028-CORE: Thermal Management, Telecommunication Central Office d. Operation: ETS300 019 Class 3.1 e. Transport: ETS300 019 Class 2.2 f. Storage: ETS300 019 Class 1.1 g. EN300386 Telecommunication centres	Kindly allow equivalent standards and modify the clause as follows: The product shall meet following or equivalent standards and regulations-		Please see corrigendum-1
167	CHAPTER-3A	26	3.A.3.5 / 24 Electromagneti c Compatibility	Compliance with following requirements has to be assured: ETSI EN 300 386-2: EMC requirements for Telecommunication network equipment.	Kindly allow equivalent standards and modify the clause as follows: Compliance with following requirements or equivalent has to be assured:		Please see corrigendum-1
168	CHAPTER-4A	49	4.A.12.3 Eligibility Criteria Requirements for OEM's: Pt#3)	OEM should have supplied the equipment/software offered or equipment/software of the same series/family at least of the value Rs. 11.00 Cr during last preceding 3 financial years (i.e. current year and three previous financial years) as on opening of bid to Government /PSUs / Telecom Service Providers. OEM should submit selfcertificate with proper contact detail of clients along with PO reference and amount supplied (Firm Name, Contact person, Designation, Telephone Number, Fax, Official mail id etc.). The same should be issued by authorized signatory. • The copy of Purchase Order is mandatorily required as supporting document.	Since end-user POs are governed under NDA, we request to remove the end-customer PO requirement: "OEM should have supplied the equipment/software offered or equipment/software of the same series/family at least of the value Rs. 11.00 Cr during **last preceding 5 financial years** (i.e. current year and three previous financial years) as on opening of bid to Government /PSUs / Telecom Service Providers **globally**. OEM should submit selfcertificate with proper contact detail of clients along with PO reference and amount supplied (Firm Name, Contact person, Designation, Telephone Number, Fax, Official mail id etc.). The same should be issued by authorized signatory. • The copy of **OEM self-signed undertaking** is required as supporting document."		As per tender document
169	Annexure IV	164	Annexure-IV WR: KRCL: PanvelRatnagiri Madgaon	100G & STM-16	Kindly elaborate the requirement.		Bidder/OEM should provide 100G & STM-16 traffic as per Annexure-IV .Bidder/OEM can also use proposed point to point 100/200G Links (against the requirement of traffic matrix as per annexure-IV) to provision services of STM-4/STM16/10G.
170	CHAPTER-3A	27	TRAINING OF PURCHASER' S PERSONNEL	40 days man week training on the equipment and network operation shall be provided by the Tenderer to RailTel in RailTel/OEM/Bidder premises with no cost to RailTel.	Please confirm the number of people required as Nokia recommend 8-10 participants per batch and also please confirm the mode of training i.e. Classroom or remote.		40 people to be trained with batch size of 10 Peoples

171	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	13	3.A.3.2	4.RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning. In case the offered equipment requires more Rack Space, in that case bidder shall provide & install Smart Telecom Rack (42 RU) with inner air conditioning (Min 1 KW & external outdoor unit and SNMP monitoring of Temperature). In this case DCDB, MCBs, power cables (approx. 15 meters per site) required for extending power from Power distribution point shall be provided by the bidder.	DWDM equipment with controller card redundancy generally start from 5RU. Kindly increase the rack space requirement to 5RU or if not then kindly remove the controller card redundancy clause for DWDM.		No change is proposed .The Power supply and other traffic impacting controller cards should be fully Redundant for hitless switchover and hitless forwarding.
172	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	13	3.A.3.2	4.RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning. In case the offered equipment requires more Rack Space, in that case bidder shall provide & install Smart Telecom Rack (42 RU) with inner air conditioning (Min 1 KW & external outdoor unit and SNMP monitoring of Temperature). In this case DCDB, MCBs, power cables (approx. 15 meters per site) required for extending power from Power distribution point shall be provided by the bidder.	We understand that this Maximum 4RU size is not limited to only photonic layer i.e., DWDM. It will be applicable for OTN & IP-MPLS solution too. Kindly Clarify		Yes, Maximum Rack unit size will be applicable for complete solution including OTN & IP-MPLS solution.
173	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	13	3.A.3.2	4.RailTel will provide Rack Space (Maximum 4 RU) per location per direction for OADM & ILA-OADM and Rack Space (Maximum 4 RU) for ILA & FOADM Locations and power (DC) for equipment Installation & Commissioning. In case the offered equipment requires more Rack Space, in that case bidder shall provide & install Smart Telecom Rack (42 RU) with inner air conditioning (Min 1 KW & external outdoor unit and SNMP monitoring of Temperature). In this case DCDB, MCBs, power cables (approx. 15 meters per site) required for extending power from Power distribution point shall be provided by the bidder.	We understand that Max 4RU size is applicable for chassis only. Additional item like heat buffer and fiber guide RU space is not included under the 4RU size. RailTel will provide additional RU space for accessories. Kindly clarify.		Maximum Rack unit size will be applicable for complete solution including item like heat buffer and fiber guide and etc.
174	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	17	3.A.3.5 DWDM System	10 B. 10G Transponder/Muxponder (Optional and as per proposed Solution).	Kindly clarify if there is mismatch of cards / transceivers between the interface guidelines given in clause 3.A.3.5 DWDM System 10(F) & traffic requirement given in Annexure-IV & Annexure-V, please clarify the methodology to be adopted for card and transceiver inventory calculations		Bidder/OEM should propose the Configurations of equipment based on their soloution , However minimum Configurations has been defined in Tender for Transponder ,OTN & IP-MPLS solution. All the client side optics/transceivers should support LR (Single mode 1310 compliant).
175	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	22	14	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. The technical specifications are mentioned above.	We suggest that hardware/software/licenses should be as per Day-1 tender requirement. Any feature support which may require additional hardware/software/licenses will be procured later date by RailTel by giving additional PO of the features required. This will keep CAPEX minimized, as Price implication will be high, if all licenses need to capture on Day-1 requirement. Kindly modify the clause accordingly.		Tender condition is very clear
176	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	22	16	MANUFACTURING, SUPPLY AND STORAGE OF EQUIPMENT c. Supply of Patch cords: The tenderer is required to supply patch cords of suitable interfaces/ length for connection with FDF and client interfaces.	Please provide the distance between FDF to client interface and FDF connector also.		LC/SC connector may consider for desgin purpose However Actual data location wise will be provided at time of awarding the contract or during site survey.
177	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	23	19	SN 2. The Power supply and other traffic impacting controller cards should be fully Redundant for hitless switchover and hitless forwarding.	We understand that controller card which do not impact traffic will be required as 1+0. Kindly clarify.		Yes, Redundant controller card should not be required in case of non impact traffic.
178	CHAPTER-3A TECHNICAL REQUIREMENTS AND SPECIFICATIONS	24	19	SN 37. The system shall also be capable to carry 400Gwavelength if required by upgrading the License/Hardware	We understand that proposed chassis should support cards/module/Mux-Demux/Amps for 400G upgrade. In future if 400G is required then Cards/module/Mux-Demux/Amps will be procured by RailTel as per 400G link engineering.		Yes, proposed chassis should support cards/module/Mux-Demux/Amps for 400G upgrade.In future if 400G is required then Cards/module/Mux-Demux/Amps will be procured by RailTel as per 400G link engineering.
179	Chapter- 3A & Clause No.10F	19	3- Software Feature	SN-7. Hardware support for SRv6	Request to make this feature optional for atleast the product with 2 *100G		Please see corrigendum-1
180	Clause No.4.A.12.3	49	3	Supplies worth 11 Crores to Govt./ PSU/TSP	Request to extend this to ISP as well in India and abroad		As per Tender document
181	3.A.3.5	17	B-xi	The bidder needs to provide a minimum of 2x10G DWDM line SFP+ (OTU2/OTU2e) with full C-band tunability (DWDM flex grid frequencies) and 4 x10G client SFP+ (LR).	From this clause, we also understand that for 10G/STM-4/STM-16/SDH services, bidder can propose Transponder/Muxponder with capability of having 2x10G DWDM Line or 1x100G DWDM Line. Please confirm if this understanding is correct.		10G transponder is optional , Bidder can propose the any transponder configuration based on their solution and traffic matrix requirement. May please refer Tender Clause 3.A.3.5-10(E).