

Corrigendum-I

Sub: "Provisioning of MDWDM (Villupuram-Katpadi & Vridhachalam-Salem) & OTN Network (Ahmedabad-Bhopal) for RailTel's OFC based Network "

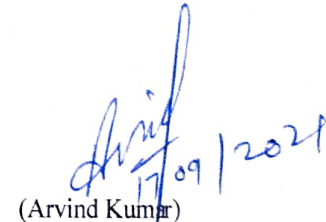
Ref: RailTel/WR/E-Tender/OT/2021-22/MDWDM & OTN Network Dtd 19.08.2021

With reference to the above mentioned open e-tender, based on the bidders queries, amendments to the tender conditions enclosed as Annexure-A are being issued (amended clauses/amendments only are being published with the rest of the document remaining as it is).

The last date of submission of bids is also extended from 20.09.2021 to 27.09.2021. Tender will be opened at 15:30 Hrs. on 27.09.2021.

All other terms & conditions of tender document remain the same.

This is issued with the approval of Competent Authority.



(Arvind Kumar)

Sr. Manager/O&M/Proc/WR

For & on behalf of RailTel Corporation of India Ltd.

DA: (i) Annexure-A (total 01 page)

(ii) Bidders Queries and Clarifications (total 06 pages)

AMENDMENTS TO THE TENDER CONDITIONS

Ref: RailTel/WR/E-Tender/OT/2021-22/MDWDM & OTN Network dtd 19.08.2021

SN	Chapter	Clause No.	Page No.	Tender Clause	Revised Clause
1	IV	1.1.2	47	Bidder/OEM should have to provide the Pluggable Optics for Network as well as client side interface for desired traffic matrix. For client side Interface LR4/10KM optics may be proposed.	Deleted
2	III	2.2	16	Second Para of Clause 2.2 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 / Internet Service Provider / Public Listed Company^ 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.	Deleted
3	IV	2.2	51	Bidder shall propose minimum 4 Channel mux/demux with express port in OADM Sites for Metro DWDM.	Bidder shall propose minimum 4 Channel mux/demux with express port in all OADM Sites for OTN Network and 40 Channel mux/demux at main OADM (i.e. Ahmedabad and Bhopal).
4	IV	1.1.2	47	1. Bidder/OEM should have to design the network for the Villupuram – Katpadi and Viridhachalam – Salem sections on single fiber based solution with using maximum 2 HU form factor chassis dimension.	1. Bidder/OEM should have to design the network for the Villupuram – Katpadi and Viridhachalam – Salem sections on single fiber based solution with using maximum 5 HU form factor chassis dimension.

BIDDERS QUERIES AND CLARIFICATIONS

Ref: E-Tender Notice No. RailTel/WR/E-Tender/OT/2021-22/MDWDM & OTN Network dtd 19.08.2021

S.No.	Chapter	Clause No.	Page No.	Description	Query	RailTel's Response
1	IV	1.6	50	Vendor must ensure that proposed MDWDM system must have co-exist 10G & 100G channels in same fiber pair without any extra Hardware. MDWDM Network should be design as per traffic requirement.	As per traffic matrix there is only 100G optical bit rate but hybrid traffic(10G & 100G) has to consider during network planning and DCM has to propose if require , please confirm.	Tender clause is very clear. No change proposed.
2	IV	1.3 a/ 2.3	50/ 51	Main OTN/OADM sites should be equipped with Minimum 40 Channel Mux/Demux with 100 GHz channel spacing Bidder shall propose minimum 16 Channel mux/demux in OADM sites for single fiber based solutions so that 8 Channel shall be used for each directions.	Please confirm 40 channel mux/demux has to propsoe at main OADM site or 16 Ch mux/demux	Tender clause is very clear. Please refer the Annexure- II of Chapter No.IV of tender document for clarity.
3	IV	1.1.2 & 9.1.3.2.5	47, 58	In Note section of clause, Point no 3 , highlights that Client and Line side should have pluggable optics, while at page no. 58 , clause 9.1.3.2.5, mentions that 100G Transponders and Muxponders shall support pluggable/fixed interfaces for all client side and line side interface.	Are fixed interfaces acceptable?	Please see the Point No.1 of Corrigendum-I
4	IV	2.2 & 2.3	51	In clause 2.2, it is written that Bidder shall propose minimum 4 Channel mux/demux with express port in OADM Sites for Metro DWDM. But as per traffic matrix it is OTN solution.	Please confirm whether the network is metro DWDM or OTN.	Please see the Point No.3 of Corrigendum-I
5	IV	1.1.2 & 9.1.4.3	47 & 60	Clause 1.1.2 , Note 3 mentions "Bidder/OEM should have to provide the Pluggable Optics for Network as well as client side interface for desired traffic matrix. For client side Interface LR4/10KM optics may be proposed. " However clause 9.1.4.3 mentions variety of pluggable optics.	We understand clause 9.1.4.3 is mentioned as a generic clause and LR4/10Km 100GbE / OTU4 optics is required for the transponder application . Please confirm whether LR4/10km is acceptable?	Please see the Point No.1 of Corrigendum-I

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6	IV	9.1.2.1	57	A single network element (NE) consisting of up to such nos. of shelves (multishelf NE) so that maximum traffic (800Gbps) may be dropped at client level.	Please clarify whether this requirement is only for Main (Ahemdabad & Bhopal) nodes/Networks where Traffic matrix is available and not for intermediate/Pass OADM nodes? Because there are some nodes where space restriction is for 2HU and 800G capacity can not be accomodated in the same with Optical Layer.	Tender clause is very clear. No change proposed. Please refer the Annexure-II of Chapter No. IV of tender document and Point No.4 Corrigendum-I for clarity.
7	IV	9.1.4.3	60	System shall support CFP/ with followin client side services. 9.1.4.3.1 100GbE (10km, LR4, 4x25G WDM) 9.1.4.3.2 OTU4 (100m, SR10, 10x10G Parallel) 9.1.4.3.3 OTU4 (10km, LR4, 4x25G WDM)	Whether CFP/CFP2/CFP4/QSFP28 will be accpetable.	Tender condition is very clear. Bidder should submit BOM based on solution required in tender document.
8	IV	2.2	51	Bidder shall propose minimum 4 Channel mux/demux with express port in OADM Sites for Metro DWDM.	Please clarify whether these Add/Drop lambdas are fixed (FOADM) if yes please letus know whether they are same or different on all intermediate nodes?	Tender clause is very clear. No change proposed. All are same on all intermediate nodes. Bidder should ensure that the supplied same type of MUX/DEMUX has same frequency range.
9	III	2.2	16	Second Para of Clause 2.2: 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 / Internet Service Provider / Public Listed Company^ 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.	As per requirement mentioned in the tender , the solution is not required to be implemented for alien wavelength deployment or in third party dwdm network. Therefore, Requirement of above Experience (Alient Wavelength Deployment/3rd Party DWDM Network Deployment), as asked on Clause 2.2, is not relevant for this tender. RailTel is requested to remove the above para from Tender QR Crtieria.	Please see the Point No.2 of Corrigendum-I

10	III	2.2	16	First para of Clause 2.2: The Equipment offered by the tenderer or equipment of the same series/family (an under-taking 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 / Internet Service Provider / Public Listed Company^ for 100G deployment of DWDM system for minimum length of 500 Kms for at least last 12 months, in India or Abroad.	As per requirement mentioned in the tender, the solution requires deployment of Three networks for length 182 KM, 139 KM, and 678 KM, while the requirement of above experience asks for deployment of 500KM. RailTel is requested to reduce this requirement of deployment experience to 35% of Largest network length (i.e. 35% of 678KM). Justification: The experience gained through deployment of 35% of 678Km (Largest section required in SOR) should be sufficient considering the involvement of all type of components used in solution.	Tender clause is very clear. No change proposed.
11		2.1.2	9	Financial Capability : The bidder should have minimum cumulative turnover of 150% of tendered value or above during the last 3 financial years (i.e. current year and/or three previous financial years). The bidder should provide Audited Balance Sheets / annual reports as documentary evidence and for current year, the Statutory Auditor's certificate for turnover of current year up to the date of bid opening for which Balance Sheet/P&L may not be available.	The bidder request that as the balance sheet of year 2020-21 is not available, hence the balance sheet of previous three years (2017-18, 2018-19 & 2019-20) can be submitted to fulfill the criteria. Also a self declaration can be submitted showing the turnover amount for the current financial year.	Tender clause is very clear. No change proposed.
12	50	1.3	a)	Main OTN/OADM sites should be equipped with Minimum 40 Channel Mux/Demux with 100 GHz channel spacing.	Please confirm End of life channel count for all 3 sections asked in the tender is 40. If yes, please give details about existing EOL design.	Tender clause is very clear. Bidder should submit BOM based on solution required in tender document. Bidder may proposed separate equipments as per the requirement.

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13	50	1.3	b)	OTN/OADM sites may be equipped with Minimum 4 Channel Mux/Demux with express port with 100 GHz channel spacing and common channel frequencies with minimum 40 Channel Mux/Demux (Main OTN/OADM Node).	As per clause 1.3(a), 40 channel mux/demux is required and acc to 1.3(b), 4ch. Mux/demux is required. Both the clauses are contradictory in nature. Request Railtel to please confirm the End of life channel count for each section and mux/demux to be supplied in each section.	Tender clause is very clear. Please refer the Annexure- II of Chapter-IV of tender document for clarity.
14	50	1.4		Bidder/OEM can use RailTel existing DWDM Network of same OEM make components like chassis, OSC system and modules in MDWDM Network at common locations/paths without impacting traffic and functionality of DWDM Network. In case if the cards/modules/Licenses in the existing DWDM hardware is proposed, OEM shall provide Undertaking for long term support for 8 years for all existing components irrespective of End of Life of the existing hardware. Existing Network OEM DWDM elements specifications are placed at Annexure- III.	Use of existing chassis etc will give unfair advantage to existing OEM and will not be level playing field for other bidders. Same clause was also amended in Railtel recent CO tender no : RailTel/Tender/OT/CO/NTP/2021-22/DWDM & MDWDM/001 Request railtel to remove this clause and every bidder should be asked to provide new chassis and other HW.	Tender clause is very clear. No change proposed.
15	51	2.2		Bidder shall propose minimum 4 Channel mux/demux with express port in OADM Sites for Metro DWDM.	Acc to clause 1.3(a), 40 ch mux/demux needs to be provided but as per clause 2.2 , 4ch. Mux/demux needs to be proposed. Request Railtel to please clarify on this.	Tender clause is very clear. Please refer the Annexure- II Chapter No.IV of tender document for clarity.
16	51	2.3		Bidder shall propose minimum 16 Channel mux/demux in OADM sites for single fiber based solutions so that 8 Channel shall be used for each directions.	Acc to clause 2.2, 4 ch mux/demux needs to be provided but as per clause 2.3 ,16ch. Mux/demux needs to be proposed. Request Railtel to please clarify on this.	Tender clause is very clear. Please refer the Annexure- II of Chapter -IV of tender document for clarity.

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17	51	2.4		Booster amplifier and pre amplifier shall be integral part of MDWDM OADM	By this clause, we understand that it is mandatory to propose Booster and pre-amp for MDWDM. Sometimes, link engg doesn't require booster to be deployed or pre-amp to be deployed. We request railtel, to leave this decision to the bidder to propose booster or pre-amp based on link engg of the OEM and do not make it mandatory.	Tender condition is very clear. Bidder should submit BOM based on solution required in tender document.
18	66	14		SOR Item A3 :40 Channel Mux/Demux (minimum) with 100 GHz channel spacing is an additional items from the Sections design solution which are proposed for procurement under this tender , it will be use separately in Existing RailTel Network . It should comply following specification: a. Size should not be more than 2 HU height b. Optical connector type should be LC type c. Latency should be less than 20 ns	Request Railtel to confirm the standard referred for the latency value mentioned in the clause for 40 ch. mux/demux	Mux/Demux is passive component, for which defined standard is not available. The latency range proposed in Tender document is desirable to avoid the high latency of network and calculate exact delay of the links in future.
19	47		3	Bidder/OEM should have to design the network for the Villupuram – Katpadi and Viridhachalam – Salem sections on single fiber based solution with using maximum 2 HU form factor chassis dimension.	Request Railtel to confirm what all components needs to be supplied in single fiber solution. Eg. Amps/Mux Demux. Please confirm the complete list.	Tender condition is very clear. Bidder should submit BOM based on solution required in tender document.
20	47		3	Bidder/OEM should have to design the network for the Villupuram – Katpadi and Viridhachalam – Salem sections on single fiber based solution with using maximum 2 HU form factor chassis dimension.	If it is mandatory for the bidder to provide amps (booster and pre-amp) also in single fiber solution, please confirm the details of the amps which need to be provided like expected gain, NF, output power etc.	Tender condition is very clear. Bidder should submit BOM based on solution required in tender document.

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21	47		3	Bidder/OEM should have to design the network for the Villupuram – Katpadi and Viridhachalam – Salem sections on single fiber based solution with using maximum 2 HU form factor chassis dimension.	Request railtel to confirm if 2HU dimension include for active components only. Request railtel to increase the 2HU dimension to 5HU for each site.	Please see the Point No.4 of Corrigendum-I
22	47		3	Bidder/OEM should have to design the network for the Villupuram – Katpadi and Viridhachalam – Salem sections on single fiber based solution with using maximum 2 HU form factor chassis dimension.	We understand that single fiber solution is required only for MDWDM sections mentioned in the clause, not for the Ahmedabad-Bhopal section.	Tender clause is very clear. No change proposed. Single fiber solution is required only for sections in between Villupuram – Katpadi and Viridhachalam – Salem mentioned in the tender document, not for the Ahmedabad-Bhopal section OTN Network.
23					There is no traffic matrix given for MDWDM sections. Request Railtel to confirm the traffic matrix for : i. Villupuram - Katpadi ii. Viridhachalam – Salem	Tender clause is very clear. RailTel has invited solution for optical layer bulding only. Bidder/OEM should have to design the optical layer in such a way so that 10G and 100G in between Villupuram – Katpadi and Viridhachalam – Salem should work without any additional hardware requirement in the optical layer.
24					Request Railtel to confirm if any spare needs to be provided along with the solution.	No seprate spare asked in this tender bidder has to ensure the SLA as per the tender clause.
25	46	1.1.2	3	Ahemdabad - Bhopal-1x100G Client	Request Railtel to confirm if 100G client required should be dual rate or not. Eg. Support of 100GE and OTU4 is required from client side or only 100GE interface is sufficient.	Tender clause is very clear. Please refer the Clause No.9.1.3.2.1 of Chapter -IV.

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