

Clarification to Bidders Queries for RailTel Limited Tender No: RailTel/Tender/LT/SR/HQ/2019-20/84 Dated 15.10.2019 Annexure-1

S.No.	Chapter	Clause No.	Page No	Description	Query	Clarification by RailTel
1	Chapter -3A	Clause 1.1	13	The required network shall be Dense Wave Division Multiplexing (DWDM) based system and End of Life (EoL) shall not be less than 8 Years and capacity shall be 4 Tbps in Backbone.	Does it mean that the new DWDM network should be designed for 40Ch@100G Capability? please confirm	Please refer clause No. h of page-28.
2	Chapter -3A	Clause 1.2.1	14	Metro R2 : Kolkata- Bidhan Nagar (1 x 100G + 10 x 10G support)	Does it mean that 2X100G channels need to be provisioned from Kolkatta to Bidhan Nagar?	Yes. However, alien wavelength solution over the existing Coriant DWDM system is also permitted as per clause-35 of Page 29.
3	Chapter -3A	Clause 1.2.1 (b)	14	The network Topology:	Backbone Ring 1 & Backbone Ring 2 will have common segment in their protect paths. Please confirm	Yes.
4	Chapter -3A	Clause 1.2 para h	18	Bidder shall consider following fibre losses with 1 dB additional fibre repair margin per span for Alien Wavelength design & 6 dB fibre repair margin for new DWDM system in Backbone.	Please confirm if connector loss is included for new DWDM system or it has to be included in addition.	Connector loss is included
5	Chapter -3A			OADM Characteristics		
6	Chapter -3A	Clause 1.3 Para 29 (h)	28	ROADM shall provide add/drop of 100G, 200G channel as offered bidder (0 to 40 channels for 100G Channel based solution or 0 to 20 Channels for 200G rates-based solution)	Tender talks about 40Ch/80Ch systems. Why is 20Ch system talked about here?	The new section shall be of 4 Tbps as per clause-1 of page No.25. 40Ch/80Ch has been mentioned as part of design details of the existing network.
7	Chapter -3A	1.3 clause 35	29	In Kolkata Metro part (Kolkata PoP & Vidhan Nagar) shall be Alien wavelength solution over Corient DWDM system. In case Bidder wants to quote New DWDM System, in that case Bidder needs to quote 10x10G protected (1+1) lambdas as well between Kolkata PoP & Vidhan Nagar.Client Plugs for 10G shall support 1550/1310nm.	Please provide the details of Deployed Line system of Coriant's network.	Corient make HIT 7300 - 80 channel system is working with 7 x 10G client circuits in two cards. (1 04).
8	Chapter-3B	Clause 9.4	35	Equipment should be telecom grade and depth of equipment should be preferably 300mm to assure ample space for proper cable management at rear end.	Telecom Grade equipment with >300mm width & proper cable management shall also be acceptable. In this way, we can best optimise the rack space requirement at each site.	Agreed. However, the proposed equipment shall fit in the Rack as per detailed specification mentioned in chapter-8B.
9		Note II-Tender evaluation Criteria			Please confirm the 100G Client Interface to be Considered in BOM. Is It LR4?	Yes
10	Chapter-3A	Clause No 1.3 Para 1	25	The NG DWDM system shall support transmission of single carrier channel with Configurable 100G & 200G line rate as per link budget requirement. DWDM Line Port shall be tunable to 100G/200G through software only. DWDM Line card shall support at least 2 baud rate to run different line rates to cover different application. The 100G/200G channel shall be supported simultaneously on the same system with no changes to the common equipment at the optical or photonic layer provided meeting link budget	Limited number of OEMs support 2 baud rates on single card. Eg. For 100G QPSK/200G-16QAM baud rate is ~32Gbaud. Ie single baud rate of 32Gbaud is supported for 100G/200G.	Please see corrigendum. Clause may be read as : The NG DWDM system shall support transmission of single carrier channel with software Configurable 100G & 200G line rate as per link budget requirement. DWDM Line Port shall be tunable to 100G/200G through software only to run different line rates to cover different application on the same
11			25	requirement. DWDM link in Next Generation Optical Network shall be designed for 4 Tbps Capacity with End of Life (EoL) not less than 8 years.	but for 2 baud rates means 100G QPSK/200G QPSK will have 32Gbaud and 70 Gbaud respectively. So, for giving equal chance to all OEMs this clause should be limited to 100G line rate only.	

12			25		We request you to modify the clause as “The NG DWDM system shall support transmission of single carrier channel with Configurable 100G / 200G line rate as per link budget requirement. The 100G/200G channel shall be supported simultaneously on the same system with no changes to the common equipment at the optical or photonic layer provided meeting link budget requirement. DWDM link in Next Generation Optical Network shall be designed for 4 Tbps Capacity with End of Life (EoL) not less than 8 years.”	card with no changes to any of the common equipment at the optical or photonic layer provided meeting link budget. DWDM link in Next Generation Optical Network shall be designed for 4 Tbps Capacity with End of Life (EoL) not less than 8 years.”.
13	Chapter-3A	Clause 1.3 Para 7	25	Super FEC as per ITU-T G.975.1 shall also be supported	ITU-T G.975 refers to Sub-Marine FEC which is not the requirement of the current span. So, request you to remove this clause.	Clause deleted
14	Chapter-3A	Clause 1.3 Para 36	29	Backbone solution shall be based on OTN DXC or similar/equivalent system to support additional 3rd Path in future using incremental hardware only to support additional 3rd Path in future using incremental hardware only	As per proposed design in tender, OTN DXC is not required and for 3rd path protection either we need L0 ASON or L1 ASON. Since OTN DXC is not required, L1 ASON is ruled out. For L0 ASON, please confirm if we need to offer directionless structure or it can be proposed later on. Pls specify “Directionless”.	No Change is envisaged.
					Main and protection line port should not be part of line card. Optical splitter should be on different card then line card to avoid single point of failure.	Please refer clause (a) at Page No 28 of chapter-3 A.
					Please confirm if existing OEMs need to propose the new NMS as existing NMS is sufficient to take care of current requirement	As per clause XII of chapter-2, OEM can leverage existing NMS Server Hardware & Software in the offered solution if feasible. However it shall be fully capable to cater to new requirement & fully comply with all the technical specification. However LCT / Clients needs to be considered as per SoR
15	Chapter-3A	Clause No 1.2 Para h	18	Bidder shall consider following fibre losses with 1 dB additional fibre repair margin per span for Alien Wavelength design & 6 dB fibre repair margin for new DWDM system in Backbone. Bidder is also required to submit full link budget calculation along with input parameters Vs output of planning tool.	6 dB Fibre repair margin is more than required. Idol margin practise across networks is 3dB. Please "modify" clause as 3dB repair margin .	As per the business requirement, the system shall work for 8 years without degradation of performance. 6 dB fibre repair margin per span is required as per the tender clause. Additionally If OEM / Bidder wants to propose any extra ILA site they need to consider 6 dB margin per span for both the segment where new ILA site is planned. OEM / Bidder has to submit planning tool data & demonstrate same to RailTel during evaluation.
16	Chapter-5	Clause No 03	74	Delivery Period Delivery within 45 days from date of issue of LOA/Purchase Order. installation and commissioning within 30 days from the issue of LOA/PO for Installation & Commissioning or 30 days from scheduled delivery date of supply item LOA/PO whichever is later	We request you to modify the clause as delivery period should be atleast 90 days from the date of issue LOA.	In view of stiff time lines given by the client, delivery period can not be altered.

17	Chapter -2	Note II-Tender evaluation Criteria Para 3	10	OEM shall provide at least one Telecom service provider network reference in India for 100G Alien wavelength deployment in live network over 3rd party DWDM network. Documentary evidence should be submitted with offer. This clause will not be applicable for M/s Adva being existing DWDM Network provider.	<p>We understand that this QR is to ascertain the capability of the bidder to operate as Alien Wavelength over 3rd party DWDM network.</p> <p>To demonstrate this capability and to have a fair competition, we request to update the QR as mentioned below:</p> <p>OEM shall provide at least one Telecom service provider network reference for 100G/10G Alien wavelength deployment over 3rd party DWDM network Documentary evidence such as Test reports/customer certificate should be submitted with offer. This clause will not be applicable for M/s Adva being existing DWDM Network provider.</p>	No change is envisaged
18	Chapter -2	Note-I Para XII	9	Bidder/OEM can also leverage existing DWDM hardware/ Management system of 100G DWDM system deployed in RailTel in proposal.	To have fair competition Can the incumbent (ADVA/Coriant) use the ILA/ROADM hardware for the Backbone New Fibre route segment (Nagpur-Kolkata PoP // Vijayawada-Kolkata PoP) or they have to provide new ILA/ROADM hardware for Backbone new fibre route?	As indicated in the clause bidder/OEM can leverage existing 100G DWDM system deployed in RailTel in proposal. No change is envisaged.
19	Chapter- 3A	Clause 1.3 Para 29 (a)	28	To support "East-West separation(EWS) i.e. the add/drop channel traversing the east direction shall not share common cards with add/drop channels in west direction"	<p>Does this mean that, there should be separate cards and 100G/200G CFP for East and West?</p> <p>Also, this would mean that bidder can not use the optical splitter for channel protection in east and west because the splitter would be common for east and west.</p>	There shall be separate Mux/demux, WSS for each direction.
20	Chapter- 3A	Clause 1.3 Para 36	29	Backbone solution shall be based on OTN DXC or similar/equivalent system to support additional 3rd Path in future using incremental hardware only to support additional 3rd Path in future using incremental hardware only.	We understand that this requirement is of Pure Layer 0 DWDM system. OTN DXC is not required in this case. Please confirm.	As indicated in the clause OTN DXC or similar/equivalent systems to support additional 3rd path in future using incremental hardware only. No Change is envisaged.
21	Chapter- 3A	Clause 1.3 Para 41.1.1	30	41.1.1 Space/Buildings /equipment room for housing rack / space in rack for location of equipment.	Both the clauses are contradicting each other. Please clarify, if RailTel will provide the space in their existing racks or Bidder has to propose new racks at every location for OADM/ROADM/ILA.	RailTel shall provide rack space in Alien wavelength segment. However, in new DWDM segment bidder has to provide new Rack as per the tender specification. Price quote shall be inclusive of the rack. Breakup of each item shall be provided in a table as per clause X & XI of page-8, 9.
22	Chapter-3B	Clause 8.1	35	8.1 All equipment should be provided with required Racks, Sub-racks, Power Supply (1+1 Hot standby).	Further, SoR also does not have any line item to quote Racks.	
23	Chapter-3D	Clause 4.2 Para 2.	38	Humidity: At any relative humidity upto 95% within the temperature range of 0 C to 40 C	Normal humidity range is 5% to 90% for DWDM equipment.	No change is envisaged
24	Chapter- 3A	Clause 1.2.1	14	Network Topology - 1.2.1	Please confirm if the Raipur-Vijaynagram section is common between Backbone Ring-1 and Ring-2?	Yes, Raipur-Vijaynagram section is common between Backbone rings

25	Chapter- 3A	Clause 1.3 Para 1	25	DWDM Line Port shall be tunable to 100G/200G through software only. DWDM Line card shall support at least 2 baud rate to run different line rates to cover different application. The 100G/200G channel shall be supported simultaneously on the same system with no changes to the common equipment at the optical or photonic layer provided meeting link budget requirement	DWDM Line Port tunable feature to 100G/200G through software can be achieved by changing line port modulation or baud rate .Different vendor use different combination of modulation and supported baud rate to achieve flexirate capabilities at line port. Thus we would request you to kindly remove 2 baud rate support as mandatory requirement from the subject clause.	Please see corrigendum. Clause may be read as : The NG DWDM system shall support transmission of single carrier channel with software Configurable 100G & 200G line rate as per link budget requirement. DWDM Line Port shall be tunable to 100G/200G through software to run different line rates to cover different application on the same card with no changes to any of the common equipment at the optical or photonic layer provided meeting link budget. DWDM link in Next Generation Optical Network shall be designed for 4 Tbps Capacity with End of Life (EoL) not less than 8 years."
26	Chapter- 3A	Clause 1.3 Para 7	25	Super FEC as per ITU-T G.975.1 shall also be supported	As per ITU-T G.975.1 Super FAC is for " Digital sections and digital line system – Optical fibre submarine cable systems" .Thus we would request you to kindly remove this clause . non-differential 25% FEC support used for terrestrial application	Clause Deleted
27	Chapter-8A	Clause 1.1 para 1.1.2	100	The proposed solution shall support minimum 8 channels of 100G in C- Band on a single fibre pair	As per clause " Optical Add/Drop Multiplex equipment characteristics" sub clause h: ROADM shall provide add/drop of 100G, 200G channel as offered bidder (0 to 40 channels for 100G Channel based solution or 0 to 20 Channels for 200G rates-based solution) Please clarify whether 8 channels or 40 channels as minimum add/drop requirement	40 channel
28					Since the 6dB fibre margin in the new section is very high, the losses in some of the sections is going in excess of 40dB. Though, RailTel has provided a list of 11 sections for optional ILA sites, But there are many other sections where loss is in excess of 40dB including margin. We request that the bidder should be allowed to propose additional ILA sites other than the 11 sites mentioned on page-18 to design the optimal solution. Please confirm	Please see Annexure-II for additional optional ILA locations.
29					Request for inclusion of PMA clause	RailTel will comply all the statutory policies like MSME, PMA etc., as per the guidelines issued by Government of India time to time. It is the responsibility of the bidder to submit the relevant documents establishing their eligibility under relevant clauses as per the latest circulars. RailTel reserves right to verify and decide the eligibility based on the documents submitted.

30					Request to participate through Authorised partner	<p>Participation in this tender through Authorised partner is permitted subject to the following conditions:</p> <ol style="list-style-type: none"> 1. The partner shall submit required documentary proofs to establish the tender eligibility criteria. 2. Hardcopy sent to the Original tenderer shall be used for participating in the bid. 3. Partner shall submit tender specific back to back agreement with OEM to discharge all liabilities pertaining to this tender. 4. OEM shall give a unconditional tender specific authorization for extending warranty support and AMC incase if partner fails to perform the same.
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