



No. RCIL/CO/NTP/2022/NetworkPlanning-Part(2) (25420) Dated: 24.08.2023

Corrigendum-II

Sub: Design, Supply, Installation, Testing & Commissioning of MDWDM Muxponder system including Integration with the existing network of RailTel.

Ref: RailTel/Tender/OT/CO/Project/2023-24/MDWDM Muxponder/010
Dated: 24.07.2023.

In reference to the above referred tender, the following amendments in the tender document are issued:

SN	Clause no. & Chapter no.	Existing clause description	Revised clause description
1	3.A.3.2(5), Chaper-3A	-48 Volt DC Power Supply will be made available by RailTel (For the Access Muxponder System 800W) in the existing rack with MCB. In case the offered equipment requires more – 48 Volt DC 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 & Battery bank (Minimum 300AH) at locations should be provided & installed by bidder with no additional cost to RailTel.	-48 Volt DC Power Supply will be made available by RailTel (For the Access Muxponder System 800W) in the existing rack. Bidder shall provide MCB as per capacity of their equipment. In case the offered equipment requires more – 48 Volt DC 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 & Battery bank (Minimum 300AH) at locations should be provided & installed by bidder with no additional cost to RailTel.

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SN	Clause no. & Chapter no.	Existing clause description	Revised clause description
2	3.A.3.5(6), Chapter-3A	Bidder needs to provide SDN Controller in HA (1+1) for Network management to manage the network elements. Supplied SDN Controller shall be connected with existing unified OSS via open-source APIs provided by Bidder at no cost to RailTel. Web based planning tool on-premises for Link Planning should also be provided along with device with no cost to RailTel however VMs for same will be provided by RailTel.	Bidder needs to provide SDN Controller in HA (1+1) for Network management to manage the network elements. Supplied SDN Controller shall be connected with existing unified OSS via open-source APIs provided by Bidder at no cost to RailTel.
3	3.A.3.5(8), Chapter-3A	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 price bid.	Deleted
4	3.A.3.5-18(28), Chapter-3A	The Bidder shall describe details of the equalization process during tender submission.	Deleted
5	3.A.3.5-1(i), Chapter-3A	The system shall support 400G capacity (with client option of 4x 100 GE and 20x10GE at Client side & and 4X100G at line side). The system shall provide flexibility to map ODU2/ ODU2e/ ODU3/ ODU4/ ODU flex to 100G line ports. System shall support client and line side protection if	The system shall support 400G capacity (with client option of 4x 100 GE and 20x10GE at Client side and 4X100G at line side). The system shall provide flexibility to map ODU2/ ODU2e/ ODU3/ ODU4/ ODU flex to 100G line ports. System shall support client side protection. In case of system

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		required. In case of system support client protection through external module, in that case bidder shall provide 5 ports of active client protection module at sites as a spare. These client protection modules may be used to protect the 10/100G services in case required at any proposed sites.	support client protection through external module, in that case bidder shall provide 5 ports protection module. These client protection modules shall be used to protect the 10/100G services in case required at any proposed sites. System shall also support line side protection if required in future.
6	3.A.3.5-1(xiv), Chapter-3A	System shall be built in such a manner that it should work with existing ROADM network based on above parameters and supplied SDN Controller should provide latest APIs, which shall further facilitate multivendor interoperability. System shall support configuration management, streaming telemetry (gRPC, gNMI), open APIs, and standards-based SNMP/YANG models. These management features should be available at no cost to RailTel.	System shall be built in such a manner that it should work with existing ROADM network based on above parameters and supplied SDN Controller should provide latest APIs, which shall further facilitate multivendor interoperability at OSS Layer (if required). System shall support configuration management, open APIs, and standards-based SNMP/YANG models. These management features should be available at no cost to RailTel and the same shall also be acceptable on confirmed roadmap. Confirmed roadmap shall be submitted by bidder along with bid duly vetted by OEM.
7	3.A.3.5(7), Chapter-3A	Proposed system shall be managed by single unified system/Controller with DC & DR (active and standby) for all the active components. Bidder shall also propose Open Controller (Multi-vendor) based Management System for managing system with DC & DR (active and standby). All licenses required for	Proposed system shall be managed by single unified system/Controller with DC & DR (active and standby) 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

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SN	Clause no. & Chapter no.	Existing clause description	Revised clause description
		Northbound and Southbound interface (API) should be equipped with offered solution at no additional cost to RailTel.	interface (API) should be equipped with offered solution at no additional cost to RailTel.
8	3.A.3.5(11), Chapter-3A	Each Access solution Muxponder system shall be equipped with 4xQSFP28 LR4 and 40x10G SFP+ LR optics.	Each Access solution Muxponder system shall be equipped with 4xQSFP28 LR4 and 20x10G SFP+ LR optics.
9	3.A.3.5-18(15), Chapter-3A	Equipment must support third party open SFP (MSA compliant) for client and line both (in case of SFP base port). Bidder to specify the SFP make and the OEM product code for all relevant SFP configurations	Equipment must support third party open SFP (MSA compliant) for client side.
10	3.A.3.5-18(23), Chapter-3A	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.	The Network Configuration Protocol (NETCONF) should support as defined in RFC 6241. It is a management protocol that provides methods to install, automate, and delete the configuration of network devices, and retrieve non-configuration data. This management features should be available at no cost to RailTel and the same shall also be acceptable on confirmed roadmap. Confirmed roadmap shall be submitted by bidder along with bid duly vetted by OEM.

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SN	Clause no. & Chapter no.	Existing clause description	Revised clause description
11	3.A.3.5-1(vii), Chapter-3A	Solution must support higher channel rate from 200G to 400G using single carrier on same proposed System if required in future by upgradation/ replacing License /Module/Card.	Deleted
12	3.A.3.5-18(12), Chapter-3A	All Chassis configuration should occupy not more than 3RU space, inclusive of switching, traffic and common cards, The space occupied by the chassis must not exceed 600 mm deep cabinet.	Deleted
13	Annexure-II(B)	Item description of Column no. 3, "No. of 100G muxponder system"	Item description of Column no. 3 should be read as "No. of access muxponder system required"
14	3.A.3.5(16), Chapter-3A	a) Rack space for housing the equipment or space in equipment room for new rack as per clause 3.A.3.3 (4) of this chapter.	a) Rack space for housing the equipment or space in equipment room for new rack as per clause 3.A.3.2 (4) of this chapter.
15	3.A.3.5(16), Chapter-3A	b) -48 Volt DC power supply as per clause 3.A.3.3 (5) of this chapter.	b) -48 Volt DC power supply as per clause 3.A.3.2 (5) of this chapter.
16	4.A.16.6, Chapter-4A	After opening of Price Bid, Reverse Auction (RA) will be applicable as per Annexure-III of tender document.	Deleted

Last Date and Time of Submission of bid - 07.09.2023 upto 15:00 hrs
Date and Time of opening of bid - 07.09.2023 at 15:30 hrs

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All other terms and conditions of the Tender document and previous corrigenda will remain unchanged.

Ravi Vishwakarma
24.08.2023

(Ravi Vishwakarma)
Sr. DGM/Project
For Principal Executive Director/Infra