



Corrigendum-VII

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

Ref: RailTel/Tender/OT/CO/Project/2024-25/MDWDM/013 Dated: 19.08.2024.

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

S.N.	Clause No	Existing Clause	Proposed Clause
1	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.	-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/TSEC. 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".
2	3.A.3.5-19-45	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	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 excluding traffic card with add/drop channels in west direction.
3	Annexure-IV of Corrigendum-III	Annexure-IV	Updated Annexure-IV attached
4	Annexure-V of Corrigendum-III	Annexure-V	Updated Annexure-V attached

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5	3.A.3.5-10 (D)-B (Corrigendum-I)	10G, STM16, & STM4 traffic 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 without overlapping (In case of available in topology) from day-1 for. Protection switching shall be triggered within 50 ms (on single fiber cut). There is no need to consider three different paths if the following options are available in the network: i. Wherever traffic passes through two different rings, a figure-eight scenario should be considered, ensuring that all paths do not overlap in any direction. ii. If traffic passes through three different rings, a figure-eight scenario should be considered after the completion of each ring, ensuring that all paths do not overlap in any direction.	10G, STM16, & STM4 traffic should be protected from at least three paths available (including alien paths) in Network as per topology defined in Annexure II. Protection switching shall be triggered within 50 ms (on single fiber cut). There is no need to consider three different paths if the overlap in any path are available in the network:
6	3.A.3.5-10 (A)-vi	100/200G Line ports system must support 100G to 200G using single or dual carrier on same proposed card/port if required in future by upgradation License/additional optic module.	Deleted
7	3.A.3.5-11 -v	At OADM, Bidder should propose both Booster & Pre-Amp at each direction.	At OADM, Bidder can propose both Booster & Pre-Amp OR Pre-Amp only at each direction based on design requirement.

Last Date and Time of Submission of bid: 27.11.2024 upto 15:00 hrs.

Date and Time of opening of bid: 27.11.2024 at 15:30 hrs.

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


 (Netesh Kumar Singh)
 Sr. DGM/Project

100G Optical Layer Traffic Matrix

SN	Section	Links	Client side capacity	Path (protected/ Linear)	Route
1	ER: North East Network (Ranglya-Jorhat)	Dibrugarh-Duliajan	100G	Linear	Direct
2		Guwahati-Ranagapara North	100G	Linear	Direct
3		Ranagapara North-Dibrugarh	100G	Linear	Direct
4		Duliajan-Jorhat	100G	Linear	Duliajan-Moran Oil-Jorhat
5		Jorhat-Lumding	100G	Linear	Jorhat-Lumding(Alien DCM Based-10G)
6		Lumding-Guwahati	100G	Linear	Lumding-Guwahati (Alien DCM Based-10G)
7		Jorhat-Guwahati	100G	Linear	Jorhat-Guwahati (Alien DCM Based-10G)
8	WR: KRCL: Panvel-Ratnagiri-Madgaon	Panvel-Roha	100G	Linear	Direct
9		Roha-Ratnagiri	100G	Linear	Direct
10		Ratnagiri-Kudal	100G	Linear	Direct
11		Kudal-Madgaon	100G	Linear	Direct
12	Madgaon-Pune	100G	Linear	Madgaon-LD-Pune-Pune (Alien)	
13	WR: Ratlam-Kota	Ratlam-Kota	100G	Linear	Direct
14	WR: Different customer deliveries	Maksi-Bhopal	100G	Linear	Direct (Alien)
15		Itarsi-Bhopal	100G	Linear	Direct (Alien)
16		Bhopal-Bina	100G	Linear	Direct (Alien)
17		Bina-Katni	100G	Linear	Direct (Alien)
18		Katni-Itarsi	100G	Linear	Direct (Alien)
19		Pratapnagar-Ahmedabad	100G	Linear	Direct (Alien)
20		Itarsi-Bhusawal	100G	Linear	Direct (Alien)
21		Ahmedabad-Kota	100G	Linear	Direct (Alien)
22		Kota-Bina	100G	Linear	Direct (Alien)
23		Kota-Nagda	100G	Linear	Direct (Alien)
24		Bhusawal-Nagpur	100G	Linear	Direct (Alien)
25		Bhusawal-Manmad	100G	Linear	Direct (Alien)
26		Nagpur-Itarsi	100G	Linear	Direct (Alien)
27		Maksi-Nagda	100G	Linear	Direct (Alien)
28		Nagda-Ratlam	100G	Linear	Direct (Alien)
29		Ratlam-Pratap Nagar	100G	Linear	Direct (Alien)
30		NIC/Belapur-Panvel	100G	Protected	NIC/Belapur-Panvel (both path)
31		Mahalakshmi-LVSB	100G	Protected	MX-MX (LVSB) both path
32		Karajat-Pune	100G	Linear	Direct (Alien)
33		Panvel-Karajat	100G	Linear	Direct (Alien)
34		Panvel-Vashi	100G	Linear	Direct (Alien)
35		Panvel-Kopar	100G	Linear	Direct (Alien)
36		Vashi-Kurla	100G	Linear	Direct (Alien)
37		Mahalakshmi-Bandra	100G	Linear	Direct (Alien)
38		Bandra-Vasai	100G	Linear	Direct (Alien)
39		Vasai-Kopar	100G	Linear	Direct (Alien)
40		Kopar-Thane	100G	Linear	Direct (Alien)
41		Thane-Vashi	100G	Linear	Direct (Alien)
42		Thane-Kurla	100G	Linear	Direct (Alien)
43		Kurla-Mahalakshmi	100G	Linear	Direct (Alien)
44	Karajat-Kalyan	100G	Linear	Direct (Alien)	
45	Kalyan-Kopar	100G	Linear	Direct (Alien)	
46	Kalyan-Manmad	100G	Linear	Direct (Alien)	
47	Kurla-CSTM	100G	Linear	Direct (Alien)	
48	CSTM-Mahalakshmi	100G	Linear	Direct (Alien)	
49	Manmad-Pune	100G	Linear	Direct (Alien)	
50	NR: RGIPT/Amethi	Lucknow-RAE BARELI	100G	Linear	Direct (Alien)
51	RAE BARELI-VARANSAI	100G	Linear	Direct (Alien)	
52	NR: Jodhpur-Jaisalmer	Jodhpur-Jaisalmer	100G	Linear	Direct
53	NR: Okhla-Jhansi	Okhla-Faridabad	100G	Linear	Okhla-Faridabad (Direct-Alien)
54		Faridabad-Mathura	100G	Linear	Faridabad-Palwal-Kosi-Mathura (Direct-Alien)
55		Mathura-Jhansi	100G	Linear	Mathura-Agra-Dholpur-Gwalior-Dabra-Jhansi (Direct-Alien)
56	WR: Shifting of Surat Pop	Surat-Pratap Nagar	100G	Linear	Surat-Palej-Pratap Nagar (Direct-Alien)
57		Surat-Vasai	100G	Linear	Surat-Vasai(Direct-Alien)
58		Surat-Bhusawal	100G	Linear	Surat-Nardana-Jalgaon-Bhusawal (Direct-Alien)
59		AHEMEDABAD-GANDHINAGAR	100G	Linear	AHEMEDABAD- KHODIYAR GANDHINAGAR
60		GANDHINAGAR-CHANDLODIYA	100G	Linear	Direct
61		AHEMEDABAD-Mehsana	100G	Linear	AHEMEDABAD-KALOL-Mehsana (Alien)
62		AHEMEDABAD-CHANDLODIYA	100G	Linear	AHEMEDABAD-CHANDLODIYA (direct-Alien)
63		Mehsana-Palanpur	100G	Linear	Mehsana-Palanpur (direct)
64		Mehsana-VIRAMGAM	100G	Linear	Mehsana-KATOSAN RD-VIRAMGAM (Alien)
65		Mehsana-BHILDI	100G	Linear	Mehsana-PATAN-BHILDI
66	Palanpur-BHILDI	100G	Linear	Palanpur-BHILDI (direct)	
67	Palanpur-Marwar Jn	100G	Linear	Palanpur-Abu Road-Marwar Jn	
68	BHILDI-SAMAKHAYALI	100G	Linear	BHILDI-SATALPUR-SAMAKHAYALI	
69	VIRAMGAM-GANDHIGRAM	100G	Linear	VIRAMGAM-TTSL -GANDHIGRAM (Alien)	
70	VIRAMGAM-SURENDRANAGAR	100G	Linear	VIRAMGAM-SURENDRANAGAR (direct)	
71	WR: Saurashtra	VIRAMGAM-MALIYA	100G	Linear	VIRAMGAM-DHANGADHRA-MALIYA
72		GANDHIGRAM-BOTAD	100G	Linear	GANDHIGRAM-Dholka-BOTAD
73		CHANDLODIYA-GANDHIGRAM	100G	Linear	CHANDLODIYA-GANDHIGRAM (direct-Alien)
74		SURENDRANAGAR-BOTAD	100G	Linear	SURENDRANAGAR-Chuda-BOTAD
75		JETALSAR-BOTAD	100G	Linear	JETALSAR-DHOLA -BOTAD
76		SURENDRANAGAR-WAKANER	100G	Linear	SURENDRANAGAR-VAGADIYA-WAKANER
77		WAKANER-MALIYA	100G	Linear	WAKANER-MORBI-MALIYA
78		WAKANER-RAJKOT	100G	Linear	WAKANER-RAJKOT (direct)
79		RAJKOT-JETALSAR	100G	Protected	Path-1:RAJKOT-GONDAL-JETALSAR Path-2:RAJKOT-JAMNAGAR-JETALSAR
80		MALIYA -SAMAKHAYALI	100G	Linear	MALIYA -SAMAKHAYALI (direct)
81	VIRAMGAM-CHANDLODIYA	100G	Linear	VIRAMGAM-CHANDLODIYA (direct)	

10G/STM-16 Layer Traffic Matrix

SN	Section	Links	Client side capacity	Path (Protected/Linear)	Route
1	ER: North East Network (Rangly-Jorhat)	Guwahati-Rangapara North	2*10G & STM-4	Linear	Direct (New DWDM)
2		Rangapara North-Dibrugarh	2*10G & STM-4	Linear	Direct (New DWDM)
3		Dibrugarh-Dulajan	2*10G & STM-4	Linear	Direct (New DWDM)
4		Dulajan-Jorhat	2*10G & STM-4	Linear	Direct (New DWDM)
5		Guwahati-Jorhat	2*10G & STM-16	Protected	
6		Rangapara North-Chaparmukh	1*10G	Linear	Direct (New DWDM)
7		Shimalguri-Dulajan	1*10G	Linear	Direct (New DWDM)
8		Shimalguri-Dibrugarh	1*10G	Linear	Direct (New DWDM)
9		Guwahati-Chaparmukh	1*10G	Linear	Alien DCM Based-10G
10		Chaparmukh-Lumding	1*10G	Linear	Alien DCM Based-10G
11		Mariani-Lumding	1*10G	Linear	Alien DCM Based-10G
12		Mariani-Jorhat	1*10G	Linear	Alien DCM Based-10G
13		Shimalguri-Mariani	1*10G	Linear	Direct (New DWDM)
14	ER: Bankura-Ranaghat	Bankura-Burdwan	1*10G	Linear	Bankura-Patrasayer-Burdwan
15		Burdwan-Dum Dum	1*10G	Linear	Burdwan-Bandel-Dum Dum
16		Dum Dum-Habra	1*10G	Linear	Dum Dum-Barasat-Habra
17	Habra-Ranaghat	1*10G	Linear	Habra-Bongaon-Ranaghat	
18	WR: KRCL: Panvel-Ratnagiri-Madgaon	Panvel-Pen	1*10G & STM-16"	Linear	Linear path
19		Pen-Nagothane	1*10G & STM-16"	Linear	Linear path
20		Nagothane -Roha	1*10G & STM-16"	Linear	Linear path
21		Roha-Kolad	1*10G & STM-16"	Linear	Linear path
22		Kolad-Indapur	1*10G & STM-16"	Linear	Linear path
23		Indapur-Mangon	1*10G & STM-16"	Linear	Linear path
24		Mangon-Goregaon	1*10G & STM-16"	Linear	Linear path
25		Goregaon-Veer	1*10G & STM-16"	Linear	Linear path
26		Veer Sapevamm	1*10G & STM-16"	Linear	Linear path
27		Sapevamm-Karanjadi	1*10G & STM-16"	Linear	Linear path
28		Karanjadi-Vihare	1*10G & STM-16"	Linear	Linear path
29		Vihare-DWV	1*10G & STM-16"	Linear	Linear path
30		DWV-Kalambani	1*10G & STM-16"	Linear	Linear path
31		Kalambani-Khed	1*10G & STM-16"	Linear	Linear path
32		Khed-Anjani	1*10G & STM-16"	Linear	Linear path
33		Anjani-Chiplun	1*10G & STM-16"	Linear	Linear path
34		Chiplun-Kamathe	1*10G & STM-16"	Linear	Linear path
35		Kamathe-Savarda	1*10G & STM-16"	Linear	Linear path
36		Savarda-Aravli	1*10G & STM-16"	Linear	Linear path
37		Aravli-Kadwai	1*10G & STM-16"	Linear	Linear path
38		Kadwai-Sangameshwar	1*10G & STM-16"	Linear	Linear path
39		Sangameshwar-Uksi	1*10G & STM-16"	Linear	Linear path
40		Uksi-Bhoke	1*10G & STM-16"	Linear	Linear path
41		Bhoke-Ratnagiri	1*10G & STM-16"	Linear	Linear path
42		Ratnagiri-Nivasar	1*10G & STM-16"	Linear	Linear path
43		Nivasar-Adavali	1*10G & STM-16"	Linear	Linear path
44		Adavali-Verawali	1*10G & STM-16"	Linear	Linear path
45		Verawali-Vilvade	1*10G & STM-16"	Linear	Linear path
46		Vilvade-Rajapur	1*10G & STM-16"	Linear	Linear path
47		Rajapur-Kharepatan	1*10G & STM-16"	Linear	Linear path
48		Kharepatan-Vaibhavwadi	1*10G & STM-16"	Linear	Linear path
49		Vaibhavwadi-Achirene	1*10G & STM-16"	Linear	Linear path
50		Achirene-Nandgaon	1*10G & STM-16"	Linear	Linear path
51		Nandgaon-Kankavali	1*10G & STM-16"	Linear	Linear path
52		Kankavali-Sindhurg	1*10G & STM-16"	Linear	Linear path
53		Sindhurg-Kudal	1*10G & STM-16"	Linear	Linear path
54		Kudal-Zarap	1*10G & STM-16"	Linear	Linear path
55	Zarap-Sawantwadi	1*10G & STM-16"	Linear	Linear path	
56	Sawantwadi-Madure	1*10G & STM-16"	Linear	Linear path	
57	Madure-Pernem	1*10G & STM-16"	Linear	Linear path	
58	Pernem-Thivim	1*10G & STM-16"	Linear	Linear path	
59	Thivim-Karmali	1*10G & STM-16"	Linear	Linear path	
60	Karmali-Verna	1*10G & STM-16"	Linear	Linear path	
61	Verna-Majroda	1*10G & STM-16"	Linear	Linear path	
62	Majroda-Madgaon	1*10G & STM-16"	Linear	Linear path	
63	Panvel-Roha	STM-16	Protected		
64	Roha-Ratnagiri	STM-16	Protected		
65	Ratnagiri-Kudal	STM-16	Protected		
66	Kudal-Madgaon	STM-16	Protected		
67	Madgaon-Panvel	STM-16	Protected		
68	WR: CCG EXCG-Badwar Park-PRS/CSTM	CCG EXCG- Nariman Point	1*10G & STM-16	Linear	CCG EXCG- CBI NP-Nariman Point
69		Nariman Point-Badwar Park	1*10G & STM-16	Linear	Nariman Point-Navy Nagar-Badwar Park
70		CSTM-CCG EXCG	1*10G & STM-16	Linear	PRS/CSTM-CCG EXCG
71		Badwar Park-CSTM	1*10G & STM-16	Linear	Badwar Park-BSE-PRS/CSTM
72		CSTM-BSE	1*10G & STM-16	Linear	PRS/CSTM-Fort Mint-BSE
73		CSTM-DIT Mantralaya	1*10G & STM-16	Protected	
74		Ujjain-Maksi	1*10G	Linear	Direct
75		Ujjain-Nagda	1*10G	Linear	Direct
76		Ujjain-Indore	1*10G	Protected	Path-1: Ujjain-Fatehabad-Indore Path-2: Ujjain-Maksi-Dewas-Indore
77		Indore-IIT/Indore	1*10G	Protected	Indore-IIT/Indore (both path)
78	Bhopal-NIC/Bhopal	1*10G	Protected	Bhopal-NIC/Bhopal (both path)	
79	Nagpur-NIC/Nagpur	1*10G	Protected	Nagpur-NIC/Nagpur (both path)	
80	Kurla-SBI Rabale	1*10G	Protected		
81	Kurla-Mankhurd	1*10G	Protected		
82	Thane-Sify Airoli	1*10G	Protected		
83	Kalyan-BSNL Kalatalab	1*10G	Protected		
84	Pune-NIC Pune	1*10G	Protected		
85	Bhopal-Htarsi	2*10G	Protected		
86	Panvel-CSTM	2*10G	Protected		
87	Panvel-Nagpur	2*10G	Protected		
88	Vasal-LVSB	2*10G	Protected		
89	Maksi-Bhopal	2*10G	Protected		
90	Pune-Panvel	2*10G	Protected		
91	Mahalakshmi-Kurla	2*10G	Protected		
92	Kurla-Panvel	2*10G	Protected		
93	Mahalakshmi-Bandra	2*10G	Protected		
94	WR: Saurashtra	AHEMEDABAD-GANDHINAGAR NIC	2*10GbE	Protected upto GANDHINAGAR	
95		AHEMEDABAD-Mehsana	1*10GbE & Stm-16"	Protected	
96		AHEMEDABAD-SURENDRANAGAR	1*10GbE & Stm-16"	Protected	
97		AHEMEDABAD-JETALSAR	1*10GbE & Stm-16"	Protected	
98		AHEMEDABAD-Rajkot	1*10GbE & Stm-16"	Protected	
99		AHEMEDABAD-Palanpur	1*10GbE & Stm-16"	Protected	
100		AHEMEDABAD-BOTAD	1*10GbE & Stm-16"	Protected	
101		Palanpur-BHILDI	1*10GbE & Stm-4"	Protected	
102		SURENDRANAGAR-VIRAMGAM	1*10GbE & Stm-4"	Protected	
103		VIRAMGAM-BOTAD	1*10GbE & Stm-4"	Protected	
104		SURENDRANAGAR-RAJKOT	1*10GbE & Stm-4"	Protected	
105		SURENDRANAGAR-JETALSAR	1*10GbE & Stm-4"	Protected	
106		AHEMEDABAD-CHANDLODIYA	1*10GbE & Stm-4"	Protected	