

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD**

NO. 2011/Tele/9(2)/1

Dated: 25.02.2020

TELECOM CIRCULAR NO: 4/2020

General Manager, All Indian Railways, NF(Con), CORE
DG/RDSO/Lucknow, DG/NAIR/Vadodara, Director/IRISET/Secunderabad

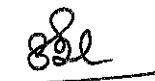
Sub: IP-MPLS Technology for Unified Communication Backbone on Indian Railways.

Ref: (i) Committee recommendations vide PCSTE/CR's letter no. SKB/CE Report/2019 dated 27.09.2019.

(ii) RDSO's letter No. STT/New Transport Technology/674 dated 12.12.2019

Based upon the committee report at reference (i) above and RDSO's comments and recommendations at reference (ii) above, Board (MST) has approved the following:


1. Use of IP-MPLS technology/standards for telecommunication backbone for Indian Railways.
2. All future works/replacement of SDH/PDH works, including works where tender is yet to be floated shall be with IP-MPLS standards.
3. All future exchange works/replacement shall be done with IP exchanges. All exchanges can be integrated into one at the Divisional level, wherever feasible, with provision of suitable bandwidth and ring connectivity/protection.
4. Creation of Integrated Divisional, Zonal and National Network Management System and these will be operated as Network Operation Centers (NOC), with relevant alerts and associated escalations. It will include integration of all such NMSs for better monitoring & proper resource utilization.
5. The telecom backbone of all future works/ replacement of Data networks such as PRS/UTS/FOIS/SCADA shall be with IP-MPLS equipments, by providing separate VPN network, if required.
6. To optimize the cost and improve availability, same network infrastructure may be shared for number of services, with required security features and with ring/protection path and VPN networks, if required.
7. Normally the open source software and equipment to be used for ease in integrations and to optimize cost. This also includes for NMS.
8. Intensive training to staff on IP-MPLS technology shall be planned immediately by IRISET and other Zonal Training Centers. IRISET will prepare the training



contents, including video clips of various modules relevant to understand various aspects of IP-MPLS.

9. Zonal Railways may take two additional fibers (other than present 4 fibers), if required, from RailTel and the proportionate equity will be taken back from the RailTel in the same proportion as per the clause no 3.2.4 of the first revised agreement between MoR and RCIL and along with proportionate fiber maintenance charges payable to RCIL as per Railway Board's letter no 2011/Tele/6(3)/5 Pt dtd 12.01.2018 or as amended from time to time.
10. RDSO to issue a tentative scheme and functional requirements of the system, including interfaces and Network Managements Systems. RDSO will also issue the specifications of the equipment, if required or may adopt the TEC specifications of the equipments and accordingly refer them. This shall be carried out by June'2020

Kindly acknowledge the receipt and ensure compliance.


25.02.2020

(Umesh Balonda)

Executive Director(Tele Dev)

E-mail: edtd@rb.railnet.gov.in

Phone: 23383138/FAX 011-23304198

Copy to:

1. PCSTEs, All Zonal Railways.