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Government of India - Ministry of Railways  
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LUCKNOW – 226011



संख्या: RDSO-TELE0LK0(TECH)/8/2020

दिनांक : As signed.

**All PCSTEs**  
Zonal Railways

**Sub :** Guidelines for Proof of Concept (PoC) for new technology items in Telecom.  
**Ref :** This office letter of even No. dated 10.04.2024 & 20.06.2024.

Advancement of technology in telecom is very fast and most of the technologies being adopted in Railways are already standardized by Telecom Department of Government of India and are being used widely in telecom sector.

In general, RDSO is not developing vendors for these standard telecom items and only Functional Requirement Specification (FRS)/Technical Advisory Note (TAN)/Specification are being issued from time to time mentioning the Railway specific requirements.

To ensure that these new technology items meet the Railway Specific Requirement as per FRS / TAN / RDSO Specification, the concept of PoC is being introduced. Guidelines for Proof of Concept (PoC) of new technology telecom items has been finalized in consultations with Zonal Railways and are being issued with the approval of competent authority for implementation.

These guidelines will be applicable after **90 days** from the date of issue of this letter i.e. **with effect from 25.10.2024** and will not be applicable on the tenders opened before that and ongoing works. The list of items which will be opened for PoC shall be published on RDSO website. PoC of VHF set and IPMPLS shall be continued in accordance with existing guidelines until these are published on RDSO website under the new guidelines.

PoC guidelines are also available at RDSO website.

This has the approval of DG/S&T.

**DA:** PoC Guidelines.

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**for DG/S&T**

Copy to:

Secretary / Telecom, Railway Board, Rail Bhawan, New Delhi – for kind information.

**Annexure-1**

**Sub:** Guidelines for Proof of Concept (PoC) for new technology items in Telecom.

1. Advancement of technology in telecom is very fast and most of the telecom technologies being adopted in Railways are already standardized by DoT, TEC etc. and are being used in telecom sector.
2. In general, RDSO is not developing specs. for these standard telecom items and only Functional Requirement Specification (FRS)/Technical Advisory Note (TAN) are being issued detailing the Railway specific requirements. As these items are commercially available off the shelf (COTS) vendor development is also not being done.
3. To ensure that these new technology telecom items meet the Railway specific requirements as per FRS/TAN/RDSO specs. of the item, the concept of PoC is being introduced.
4. New technology telecom items mentioned below may use the concept of PoC:
  - a. IP-MPLS network for IR backbone.
  - b. VSS/CCTV network.
  - c. VHF System.
  - d. VOIP based Train Control Communication System, etc.

However, the list of items which will be opened for PoC shall be published on RDSO website. Decision for items to be included / deleted for PoC shall be taken with the approval of competent authority.

5. Any interested OEM can offer their equipment for PoC having compliance with TAN/FRS/RDSO specs.
6. PoC shall be carried out as per approved PoC plan issued by RDSO based on TAN/FRS/RDSO specs. of the item.
7. After successful PoC of the equipment, the details of equipment make, hardware and software version shall be recorded and same shall be published on RDSO website.
8. For unsuccessful PoC, the OEM can approach again to RDSO after making required changes in the software / hardware of the equipment along with details of changes and corrective measures taken.
9. The PoC shall remain valid unless there is any change in hardware or software or TAN/FRS/RDSO specs. of the equipment is revised.
10. In case of complaints regarding poor performance related to quality of product reported by Railway directly or through Railway Board, the product may be withdrawn from the list of successful PoC considering the seriousness & its effect on quality of product with the approval of directorate head, after serving a notice to the firm, seeking time-bound reply within 15 days and considering the response of the firm to the notice.
11. PoC shall be carried out preferably in RDSO Lab or in any of the nominated Sections/Division, if field inputs are required. For some functionalities, which may not be possible to demonstrate in RDSO Lab or field, may be demonstrated in Govt./NABL accredited Lab/OEM Premises.

12. For any particular item, PoC will be carried out in uniform conditions / same section for different OEMs.
13. No charges shall be levied for PoC in RDSO Lab or field, however, charges of Govt./NABL accredited Lab shall be borne by the OEM, if any.
14. For PoC, required set up of equipment along with all testing and measuring equipment shall be arranged by the OEM. No payment will be made by RDSO/Railways for the same.
15. OEM shall submit the following documents/details along with application for PoC to RDSO:
  - a. Details of equipment under test (EUT), its OEM, model, version etc.
  - b. Test certificate for Environmental, Safety, EMI / EMC, Vibration, etc. as per TAN/FRS/RDSO specs. of the item.
  - c. All regulatory certification like Telecom Trusted Portal Certification, MTCTE Certification, WPC certification, STQC certification, ISO Certification, etc. as applicable for the item.
  - d. Self-certification for clause wise compliance of TAN/FRS/RDSO specs.
16. Item-wise list of equipment along with details shall be published on RDSO website for successful PoC. For these items, RDSO will not participate in PoC conducted by Zonal Railways, if any.
17. List published on RDSO website shall not be considered as “only” probable OEMs of the equipment and competition shall not be restricted to this only. However, procurement of items which are opened for PoC shall be done only after completion of successful PoC.
18. RDSO inspection of these items shall continue to be done as per extant policy.

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