

भारतसरकार(Government of India)
रेलमंत्रालय(Ministry of Railways)
रेलवेबोर्ड(Railway Board)

No. 2017/Tele/11(2)/1Pt(3227384)

Dated: 24.06.2022

The GMs/CMD/PCAOs/CAOs,
All Indian Railways, KRCL, PUs, CORE, COFMOW
(As per standard list)

The DGs/Directors
RDSO, NAIR, All CTIs
Chairman, RRBs

Telecom Circular No. 4/2022

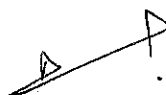
Sub: Use of open source 'Asterisk' software for uniformity of IP exchanges over Indian Railways.

**Ref: i) Telecom Circular No. 12/2012 dated 12.09.2012.
ii) Telecom Circular No. 12/2015 dated 15.12.2015.**

Vide Telecom Circular No. 12/2012 dated 12.09.2012, instructions were issued for use of Asterisk, open source VoIP software, uniformly across Indian Railways. However, looking into difficulties being faced in implementing Asterisk based exchange, Board vide its Telecom Circular 12/2015 dated 15.12.2015 allowed use of any VoIP software based on "Open Standards" for the exchanges. Railways have since then provided both open source and propriety VoIP exchange software. Some of these works on Common-Off-The Shelf servers while some on propriety hardware. Some software are with different types of licenses and some are with no limitations in terms of licenses. Asterisk has also been provided in a few zonal headquarter and divisions.

2. With the experience gained over Indian Railways on Voice Network Modernization and in an effort to bring uniformity, optimize maintenance cost, reduce total cost of ownership for IP exchanges and enhance manpower productivity for maintenance of IP exchanges over Indian Railways, use of Asterisk software for VoIP exchanges has been reviewed in Board's office and the following instructions are issued:

- a. The VoIP exchanges on Indian Railways should be implemented on Common-Off-The-Shelf servers and not on propriety hardware.
- b. Asterisk open source software (<https://www.asterisk.org>) should be used for all VoIP exchanges on Indian Railways. This will bring uniformity optimize cost of ownership and also the maintenance cost. Asterisk software is open source and is available as a free download from Internet with no limitations in terms of any type of license like phone license, SIP trunk license etc. All these shall be available at zero cost.



IRISET is already conducting an equipment course on Asterisk. It should plan an advanced equipment course on Asterisk to ensure that railway personnel are able to configure and maintain the Asterisk based IP exchange independently. This course may cover advance topics like auto provisioning, configuration generation, conferences, call-continuation, call grouping and pickup, mapping short codes, byte intercom facility, CLI modifications etc. It shall also arrange to host the Asterisk software and the configuration tool (developed in ECR) on Railnet that can be used by zonal Railways.

c. Henceforth, only Asterisk software on Common-Off-The-Shelf servers shall be used when purchasing a new exchange or whenever an exchange is replaced on age-cum-condition basis. Approval from Board's office should be obtained in case of any exceptions to this duly justifying the reasons for not using Asterisk.

d. All the tenders that have not been opened on the date of issue of these instructions shall be aligned with these instructions.

3. A committee comprising of CSTE/Proj/SWR, CCE/ECR, Dir/Tele/RDSO & Prof(Tele)/IRISET has been nominated for formulating the guidelines for implementation of Asterisk based exchange over Indian Railways.

4. The continuation of use of "Asterisk" for VoIP exchanges on Indian Railways shall be reviewed after three years.

5. Kindly acknowledge receipt and ensure compliance.

24/06/22
(धर्मन्द्र सिंह)

निदेशक/ दूरसंचार

दूरभाष 011-23388504, 030-44613

ई.मेल dtele@rb.railnet.gov.in