Minutes of the meeting held on 2nd July 2008 in Board's office to review the working of FOIS and its expansion on all ZRs.

Following were present:-

Railway Board AM(IT) ED(C&IS) DE(C&IS)	**CR** STM/Goods SNM	**ER** SNM	**ECR** None	**ECOR** Dy.CNM/FOIS Dy.COM/FOIS	**NR** Dy.CNM/FOIS Dy.COM/FOIS
CRIS GGM/FOIS GM/AS	**NCR** Dy.COM ASTE	**NER** DSTE/Tele. STM/FOIS	**NWR** SNM Dy.COM/FOIS	**NFR** Dy.COM/FOIS Dy.CNM/FOIS	**SR** Dy.COM/FOIS SNM/FOIS
CAO/FOIS/NR CPM/IT CPM/FOIS FA&CAO/FOIS Dy.COM/FOIS Dy.CSTE/FOIS	**SCR** STM/FOIS SSTE/Quality **WCR** Dy.COM/FOIS	**SER** Dy.CNM/FOIS Dy.COM/FOIS	**SECR** Dy.CSTE/T ATM	**SWR** SNM/FOIS	**WR** Dy.CNM Dy.COM/FOIS

1. ED(C&IS) welcomed all participants and explained the purpose of convening the meeting of Dy. COMs & Dy. CNMs. He advised that field officers should not only function as Managers but also interact adequately during design and construction of new assets. He stressed that FOIS organization should interact and have constant communication with various officials in the Divisions for better functioning of FOIS.

2. AM(IT) in his opening address, opined that all TMS failures are not being reported to Railway Board. Some of the railways have shown very negligible failure of TMS, while their UTS and PRS failures are enormously large in number and duration.

3. CAO/FOIS, introduced his team and advised that reporting of failure should be 100%. He also advised that instructions issued by him should be carefully read and complied with.

4. GGM/CRIS, Shri R.B. Das, stated that network design has not been followed as suggested by CRIS. He was of the view that quality of network design, quality of construction of assets and proper system of port maintenance are the key for achieving reduced downtime as well as reduced incidences of failure.

5. Presentation on FOIS failures was given by DE(C&IS). Copies of the presentation were circulated.

6. The following railway-wise suggestions/points were noted during presentation by individual Zonal Railways: -

6.1 **Central Railway:**

(a) It was observed that BSNL owned data channel were failing more in comparison to Railways own circuits. Channels between GGS-NGP, Sarni-AMF, Warni-NGP and Loni-CSTM were giving frequent faults.

(b) CR submitted that 10 locations through Railway OFC & 2 locations on BSNL media would be provided alternate route to strengthen the reliability of connectivity.

(c) CR is planning to have NMS for better monitoring and strengthening the FOIS network during 2008-09.

(d) CR is on way to have periodical personal meeting with GM/BSNL.

6.2 **East Coast Railway:**

(a) Following steps recommended by ECoR for minimizing downtime of FOIS:

- local lead should be duplicated.
- At least 25% spares should be available at site.

- Surge arrester used in communication equipments viz. modems, LAN extenders, switches, routers should be procured along with networking equipments.
- Staff should undergo regular training courses at IRISET/Secunderabad for FOIS maintenance.
- Adequate incentives should be offered to staff for passing CISCO/Microsoft certification examinations being very effective and good bech marks of network engineers.

(b) ECoR required following assistance: -

- Creation of revenue post at Zonal HQs and Divisions.
- Provision of network Management system (NMS) for proper diagnosis of fault and early rectification.
- Maintenance of UPS should be done by Electrical Deptt.
- CRIS should review back-to-back support and ensure regular (quarterly maintenance visits) for rectification of spares.

6.3 **North Central Railway**:

NCR mentioned that Railway is facing problems in FOIS maintenance due to poor response by service provider, non-availability of BSNL phone at TMS locations and non-availability of standby connectivity.

6.4 **Northern Railway:**

NR submitted that MTTR of BSNL channel is high due to non-availability of adequate number of linemen with BSNL organization.

6.5 **North Western Railway**:

(a) Railway suggested that staff attending FOIS maintenance, should undergo regular training programes.

(b) As codal life of RMS equipment is over, NWR proposed that replacement should be done by the CRIS.

6.6. **Northeast Frontier Railway**:

NF Railway stressed that FOIS failures are on higher side due to frequent OFC cut by miscreants and maintenance problems after dusk. Natural causes like flood, and soil erosion also causes failure of data channels due to shifting and damage of OFC. Long duration power cuts also contribute significantly to interruptions in FOIS working.

6.7 **Southeast Central Railway:**

SECR suggested that an NMS should be installed at Zonal office and technical training should be provided to the FOIS maintenance staff.

6.8 **South Eastern Railway:**

- SER submitted that IRPMU VSAT vendor is not installing VSAT at BBM etc. despite constant persuasion. VSAT vendor (HCIL) is responding poorly in rectification of VSAT despite close follow-up by the Railway.
- VOIP phones are not working at any of the VSAT location.
- Railway proposed dust free environment for TMS locations situated in Iron ore and coal belts.
- Modem failures, especially in lightening prone area, are causing poor efficiency. Railway proposed that reputed make of modems such as 'RAD' need to be procured for vulnerable sections. Due to poor road connectivity and no passenger trains, MTTR is very high.
- Railway requested assistance for creation and sanction of staff for maintenance of FOIS datacom equipments.
- SER has upgraded bandwidth of 7 numbers of 64 kbps channels to 2 mbps. An Alternate channel for standalone VSAT locations is also being planned.

6.9 **South Central Railway:**

(a) SCR has started measures for improving efficiency viz. CSTE's frequent meeting with CGM, correspondence with concerned CGM/GM, frequent inspections to TMS site by officers of all levels.

(b) SCR required following assistance: -

- 10% spare along with equipment, modems should be supplied of uniform brand.
- Requirement of additional staff as workload has increased.

6.10 **Western Railway:**

WR gave following suggestions for FOIS maintenance : -

- Re-designing and upgradation of present FOIS network at the field and apex levels.
- Provision of a smart NMS, which can generate link status with date& time and can generate reports.
- Provision of proper infrastructure to maintain the integrity of datacom network. A joint procedure order for maintenance of integrated data network.

7.0 **After presentations from Railways during discussion following was suggested : -**

7.1 **AM(IT) advised that** –

- Earthing of Communication and electrical equipments should be of standard quality and be properly maintained to avoid burning of equipments from lightening.
- Each zone should have a dedicated team of 15 officials each from operating and S&T Deptt. for FOIS monitoring and implementation.
- AM(IT) stressed that non-reporting of failures vitiate overall efficiency of the system. Railway should not allow tampering of actual data and credibility of the system should not be allowed to degrade.
- All staff working on FOIS terminals should be comfortable with the working knowledge. As staff is middle aged, it becomes difficult for them to understand modern technology. It is essential to frame training modules accordingly.

- He suggested that rationalization of FOIS backbone network should be traffic oriented and not management oriented.
- CRIS has to design and calculate requirement of BSNL channel for opening 700 additional TMS locations. All backbone channels upto Division should be of 2mbps capacity. Locations other than Divisions could be on 64 kbps depending upon the availability. After design, requirement of routers and their configuration can be calculated.
- A policy for spare equipments and replacement will be finalized and circulated all railways soon.

7.2 **ED(C&IS) advised that** -

- Concerned officials should be closely involved in day-to-day functioning of FOIS. If problems persist matter should be thrown up to HQ or Railway Board. A proper system should be developed for maintenance as well as correct reporting of the failures.

7.3 GGM/FOIS/CRIS further added that though routers, are reliable communication equipments, they requires dust free controlled environment and continuous quality power supply.

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1. COMs, All Indian Railways.
2. CSTEs, All Indian Railways.
3. AM(IT), Railway Board
4. ED(C&IS)/Railway Board
5. MD/CRIS, Chanakyapuri, New Delhi.
6. CAO/FOIS, Northern Railway, New Delhi.