Chapter 6 – Review of Change Management and Outsourcing of Activities

> **Audit Objective 5**
>
> To review the effectiveness of change management and outsourcing of activities.

6.1   Change management – Lack of formal change procedure

Managing Change Controls are used to ensure that amendments to a computer system are properly authorized, tested, accepted and documented. CRIS is responsible for effecting changes in the software. However, no formal procedure, containing among other things, authority competent to make request for change, level/procedure of testing of changes, authority competent to approve changes, level of documentation for changes to be maintained etc. has been devised/prescribed for effecting changes in the CMS though as per CRIS IS Policy, each group is required to maintain Documented Change Management Procedure.

A review of the process being followed by CRIS for effecting changes in the CMS was conducted and it was noticed that testing by the end user and formal approval of the CAO/FOIS or any other officer authorized to approve changes in the software on behalf of end user (Railway/Owner) was generally not available on record.

Thus, lack of proper Change Management Procedure and non-involvement of end users in testing and approving software changes has inherent risk of incorrect and unauthorised changes in the application.

6.2   Non-Updation of CMS documentation

As per CRIS's Information Security (System Documentation) Policy, all the systems/applications maintained and operated by CRIS should be comprehensively and accurately documented.

The System Design Document on CMS was also not complete and updated. It did not contain structure of each and every table including their field names, field types, field description and their linkages with other tables. Data Flow Charts were also not available in the document. Details of the reports to be generated/being generated by the system, and their format etc. were also not available in this document.

CRIS's Training Manual for CMS contains instructions/guidelines on 'How to Operate/Use CMS' but this document was not updated after April 2012 and was also not found uploaded on CMS website.

CRIS intimates about the new version release to all zonal railways and also makes disclosure of the changes made in the software on its website. However, as per the feedback received from the lobby officials over CR, NR, ER, NWR, NFR, SER, ECR, SWR, WR and SR, the lobby officials were generally not satisfied with the process of intimating changes/new version/features of the software and training and in the absence of the adequate knowledge/documentation about the added or modified features (like how to use them), lobby staff were handicapped in using such new features/options.

Thus, lack of complete and updated documentation could adversely affect the working of CMS at Data Centre level as well as at lobby level.

In reply (September 2015), RB endorsed CRIS remarks that the need for regular updation of documentation on System Design has been noted for compliance. Training manual has been updated till version 3.8 and further changes have been apprised separately but did not find it fruitful to upload it online due to large size.

The reply of Railway Administration is not acceptable to the extent that Training Manual has not been comprehensively updated and uploaded on the website which can be done in a number of ways.

6.3   Lack of dedicated staff at lobbies for CMS operations

In the absence of dedicated staff for operation of the CMS, the work of lobbies is being done by deploying the skilled personnel (Guards and Drivers) and outsourced personnel.

CMS operations of RPH, KWAE, AZ, PKR[82] lobbies of ER, Pune Division of CR, KGP and SRC of SER, KUR division of ECoR, Chennai Division of SR, lobbies of SECR and SCR except at the Aurangabad (AWB) were being managed/operated by the outsourced staff whereas at HWH (Electrical, Diesel and Guard), BWN (electrical) lobbies of ER and at all the lobbies of Delhi division were being managed/operated by crew members (Drivers and Guards). Over NFR, CMS data feeding was being carried out even by Gate Man, ALP, Porters, Retiring Room Bearers etc. posted at different lobbies.

It was further noticed that there were no documented and approved policies listing specific activities which could be outsourced, as well as for ensuring the individual responsibilities of railway users *vis-à-vis* outsourced users.

The safety and quality of data was compromised as highlighted under paragraph 4.3. As manning of CMS involves safety requirement and financial implications in the form of running allowance, policy may be

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[82] *See glossary*

formulated duly describing the functional requirement and responsibilities of outsourced personnel.

The Railway Administration failed to create a dedicated pool of staff to operate CMS and also to ensure higher degree of continuity of trained staff in the job. This arrangement can strike a balance between deploying costly running staff and inexperienced outsourced staff for the operation of CMS.