

OVERVIEW

Chapter 1 - Information Technology Audit of PRIME – Indian Railways developed Pay Roll and Independent ModulEs (PRIME) a computerised application, as a part of the scheme of Railway Board to implement a uniform online payment and accounting system over all the zonal railways. The computerised application was designed to serve as a decision support system for human resource management and to maintain all career events of employees apart from generating different types of establishment bills and monitoring recoveries from employees.

IT audit of PRIME, to the extent implemented by three Zonal Railways, revealed several significant deficiencies as nine of the 18 sub modules developed were not put to use leading to sub optimal utilisation of the application. Southern Railway was not fully equipped for implementation of the application and consequently accepted the software even though nine out of 18 sub-modules had not been implemented (**Para 1.5.1**). Southern Railway incurred avoidable cost of Rs.2.70 crore on duplication of network facilities and operation management cost (**Para 1.5.3**). Retention of excess manpower at EDP Centre, Chennai in spite of reduction in workload resulted in an extra expenditure of Rs.2.41 crore for the period from October 2001 to March 2005 (**Para 1.5.4**). General controls encompassing system administration, security, documentation and change management controls were inadequate (**Para 1.6**). Audit trail features were found to be disabled in Southern and Western Railways (**Para 1.7.1**). Deficient input validation and processing controls left the data inconsistent and rendered the system vulnerable to manipulation, increasing the risk of unauthorised drawal of pay and other allowances etc. (**Paras 1.7.2 to 1.7.5**).

Chapter 2 - Audit of IT Governance with reference to implementation of PRIME and AFRES – Evaluation of IT governance in Eastern Railway with reference to the implementation of PRIME and Advanced Financial and Railway Expenditure Management System (AFRES) disclosed delays in acquisition of infrastructure resulting in a time over run of three years and cost over run of Rs.1.63 crore. The extent of time over run and cost over run was bound to increase even more as the system was yet to be tested and implemented (**Para 2.6.1**). Delay in purchase of hardware resulted in an avoidable expenditure of Rs.0.30 crore and software was injudiciously purchased in excess of requirements (**Paras 2.6.2 and 2.6.4**). Isolated implementation of software was not in consonance with the extant orders of Railway Board and defeated its objective of uniform implementation of standard applications (**Para 2.7**).

Chapter 3 - Transaction Accounting System – In October 2001, Metro Railway Kolkata implemented an Information Technology application called Transaction Accounting System (TAS) for on-line accounting of transactions.

The TAS was found to be deficient both in application and general controls. Implementation of non-cluster solution, in contravention to the recommendation of Regional Computer Centre (RCC) Kolkata, adversely

affected the on-line processing. In the absence of incorporation of validation checks, the system was accepting any value entered as the amount of bill without cross verifying the availability of funds under the corresponding heads. Lack of proper checks allowed generation of different cheques of the same number. The system also allowed withdrawals from Provident Fund irrespective of the admissible limits and balance available.

Chapter 4 - Information Technology Audit of Material Management Systems – Material management plays a crucial role in the functioning of railway production units and zonal railways. Effective material management ensures accurate assessment of the requirement and procurement of materials in an efficient and economic manner.

Indian Railways had adopted different computerised material management/inventory management systems in its production units and zonal railways. IT Audit of the computerised systems in Rail Coach Factory, Kapurthala (RCF), Chittaranjan Locomotive Works, Chittaranjan (CLW) and Western Railway (WR) disclosed significant deficiencies. Users were not involved in developmental phase in CLW. The systems developed in RCF and CLW were not capturing vital data requiring manual interventions (**Para 4.5**). The general controls encompassing disaster management, access controls, change management controls and segregation of functions were inadequate (**Paras 4.6.1 to 4.6.8**). Application controls were deficient leading to irregularities in master files and transaction files casting doubts on data integrity (**Paras 4.7.1 to 4.7.5**). The computerised systems were not optimally utilised, leading to excess procurement of stores and inventories were held beyond the prescribed norms (**Paras 4.8.1 and 4.8.2**).