Information Technology

Historical Background

IT Infrastructure in Rail Coach Factory has its genesis in the Project of Setting up of Rail Coach Factory, Kapurthala sanctioned in 1985. The Management Information System with its Hardware and Software aspects was designed and executed through outside consultants namely: M/s Hewlett Packard (India) and M/s Tata Consultancy Services respectively in June, 1992.

Initially, RCF had installed 2 mainframes of HP make (model HP 3000/955) in year 1992 each having 96 MB RAM and a total shared storage space of 13 GB. This system worked on MPE-ix operation system and Allbase/SQL as database. In case of failure of either of the mainframes, the other mainframe takes over the complete load at slower speed.

IT is the nodal agency for all activities involving the use of computers in RCF including CAD Systems.

Basis of Computerisation

RCF has a totally decentralized approach in computerization. All the activities 'such as data entry, data processing and generation of the MIS & other routine reports' are being performed at end user level. Thus, computerization in RCF is based on the following tenets-

- All day to day functioning is in the hands of the user department.

- Data collection at source, no duplication of data entry.

- As data is stored centrally it can be accessed at any terminal in RCF.

- IT department is responsible for the development and maintenance of the system and applications.

1st upgradation of IT Infrastructure (2003)

HP3000 Series 955 Main Frame had become obsolete. RCF replaced these Main Frames Servers with 02 IBM RS600 P-Series RISC Servers having dual 750 Mhz, 4 GB RAM, 200 GB SAN storage, AIX-5.2 OS and Oracle 9i as database and 03 IBM Xeon Application Servers having dual CPU, 2.2 Ghz, 2 GB RAM, 2x36 GB HDD, 150 Thin client and Optic Fibre Network. Computerization is now the backbone of RCF system.

The existing database was re-designed and all the applications were re-written with in-house efforts in GUI mode, using oracle Integrated Development Suite (Designer, Forms & Reports). The existing data was re-casted & loaded in the database. All these activities and usage of new servers led to drastic improvement in the processing efficiency of all the applications.

2nd Upgradation of IT Infrastructure (2012)

RCF again replaced existing Servers infrastructure and Database with 02 IBM Power 740 RISC Servers having Quad core, 4.3 Ghz, 64 GB RAM, 10 TB SAN/NAS storage, AIX-7.0 OS and Oracle11g as database and 02 IBM 3650 M3 Xeon Weblogic Servers (Application Servers) having dual CPU, 3.46 Ghz, 128 GB RAM, 2x300 GB HDD along with Backup Tape library

All the applications have been migrated to make them compatible with Oracle Weblogic Server. The new servers have led to drastic improvement in the processing efficiency of various applications.

Oracle 9i Database is replaced with Oracle 11g database. Internet Developer Suite (IDS6.0) is replaced with IDS10g. Migrated applications are running on middleware using Oracle Weblogic Server software. The migrated applications are browser based. There is no need to install oracle client at user desktop for running the applications.

Servers are connected with Core switches using 10Gbps OFC module. Stackable switches have been used for networking to cater for future expansion.