

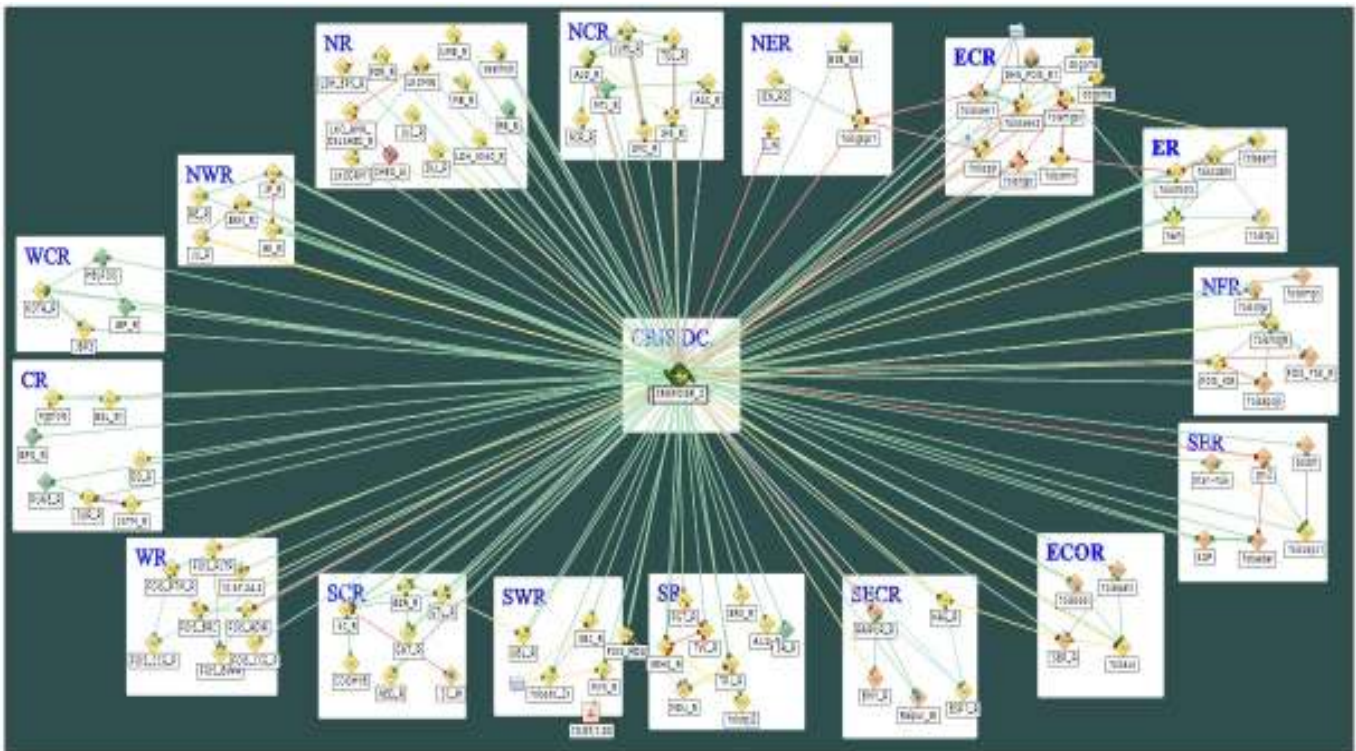
Network Management System for UTN & FOIS Network of Indian Railways

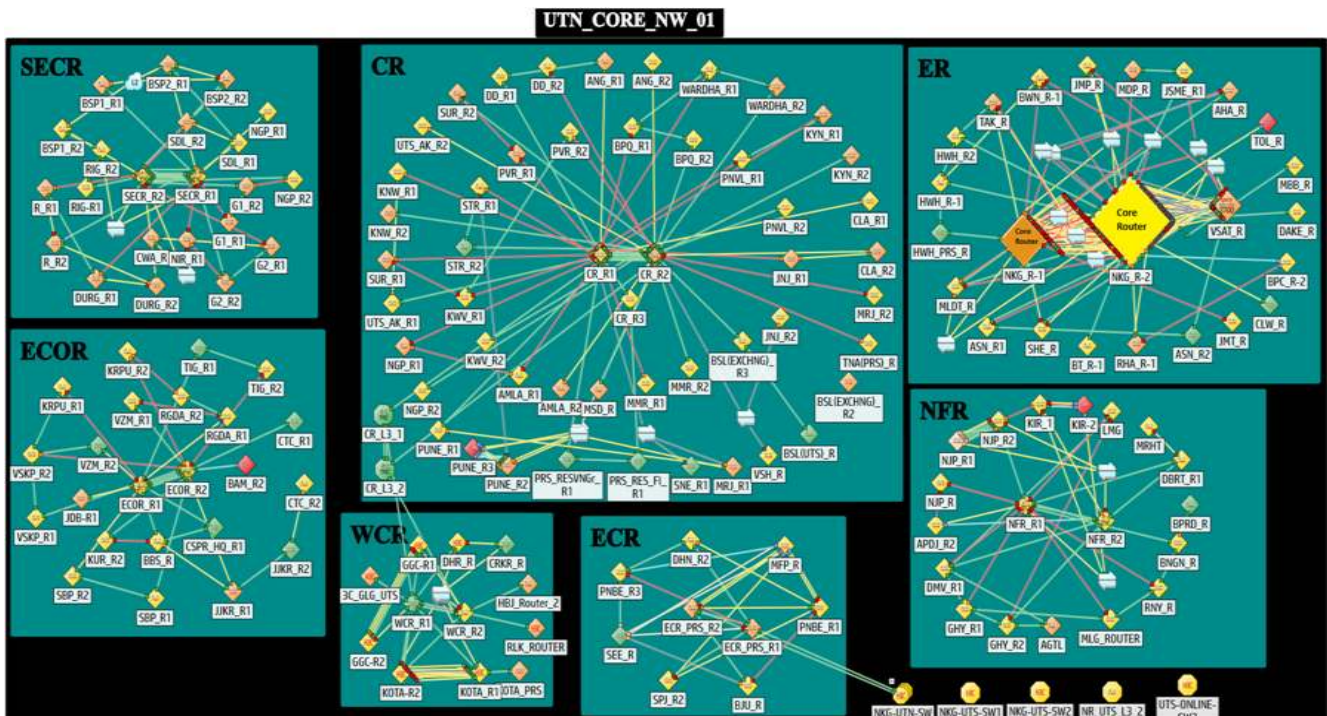
Overview of Project:

An enterprise class NMS solution has been implemented for monitoring/management of entire ICT infrastructure of Indian Railways installed in Unified Ticketing Network (UTN), FOIS Network, all regional PRS/UTS DCs, Railway Internet Datacenter (RIDC) and Next Generation e-Ticketing System (NGeT) DC. This system is being utilized to monitor/manage about 25,000 nodes (Network equipment, perimeter security equipment, thin clients etc). In addition, about 500 servers/OS (CRIS DC, NGeT DC and all PRS/UTS DCs) instances have also been configured to be monitored through this system. The entire central HW & SW infrastructure of NMS has been deployed at CRIS DC. NMS consoles have been provided at zonal/divisional headquarters for monitoring of respective UTN & FOIS network. Main features of this solution are as follows:

1. Network fault management provides real-time status of the network through topology views configured for all zonal / divisional railways.
2. Application/Service availability being dependent on multiple ICT components, capability to monitor these components and co-relation enables monitoring at the end user service level. Business Service Dashboards (BSDs) for all critical Railway applications/services are available in this solution.
3. Historical availability/load report, Centralized network configuration management and Traffic Analysis are also available through this solution.

NMS Topology:





Benefits of NMS:

- End-to-End monitoring (network/security devices, Thin Clients/Terminal Servers, UPS, Servers)
- Fault management, Performance management, Configuration Change/Compliance Management, Network Traffic Analysis, Event Correlation
- Real-time detection of faults & failures, degradation in performance along with root cause analysis
- Organized and controlled configuration change management
- Comprehensive Reporting
- Real time service, infrastructure & device level dashboards

Project Status:

Project has been implemented in Zonal Railways for monitoring of FOIS and UTN networks. Fine tuning of the complete solution is in progress.