



Case Study

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# Implementation of Enterprise Asset Management for Metro Rail in Indian City

## Client

The Metro Rail Operation Project is the world's largest PPP project in the Metro sector. The client is a major technology, engineering, construction, manufacturing, and financial services conglomerate, with global operations.

With increasing commutation demands, the existing infrastructure in an emerging Indian city needed expansion. The project required automated solutions in order to successfully fulfill infrastructure demands, implementing asset management solutions.

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## Challenges

The Metro Rail project had multiple assets, which were under regular wear and tear. There were increasing complexities in maintenance and operations at many levels. The project required an integrated enterprise asset management solution with real-time dashboard to have holistic view of their assets.

### **Additional challenges were:**

- Implementation of IBM-Maximo Asset Management including testing and AMS support
- Existing customer and new member engagement
- Multiple subsystems, operations departments, and data sets for rail maintenance

## LTIMindtree Solution

LTIMindtree implemented its proprietary **“RaiLnT Solution”**, which is developed on **IBM Maximo**, with built-in IoT capabilities to address and surpass the project’s challenges. In this solution, Maximo was used to track location and asset hierarchy of Metro Rail Stations, Depots, Rail Infrastructures, Tracks, Via Ducts, Tunnels, and Rolling Stock to manage all types of maintenance of the rail, infrastructure, and facilities assets.

### Implementation details:

- Integration with SAP
- Automation of service requests for railway subsystems via middle layer IIB
- Appropriate communication of schedule and deliverables, and rigorous follow-ups
- Acceptance enforced for Common Data Model
- Roles and responsibilities clearly charted and signed off by vendor and customer
- Real-time updates between source and destination
- Scale-up from point solutions to enterprise-wide deployment (distributed bus)
- ESB – Middle layer-based interfaces
- Complex and robust integration of seven railway subsystems (PTC (Positive Train Control), TCS (Traffic control system), COMMS (Communication), RS (Rolling Stock), BMS (Building Management System), Track and Depot), and SAP through ESB

## Business Benefits

With LTIMindtree's proposed solution, Metrorail was able to:



Efficiently track and manage rail assets and location data



Operational and safety decisions with a 24x7 real-time view of compliance



Adherence to reduce flaws in automation



Efficient tracking of labor, materials, and tools charges by linear measure



Optimized asset efficiency and inventory levels



A complete suite of Business Intelligence and Reporting to ensure correct information and optimal management of assets



Enabling change characteristics of a linear asset, using dynamic segmentation



Substantial reduction in administrative manpower



Safety of assets and labor maintained by PTW (Permit To Work) application

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