



# MODERNIZING RAILWAY OPERATIONS AT GORAKHPUR RAILWAY- CASE STUDY

## INTRODUCTION

Gorakhpur Railway, a pivotal railway hub, recognized the pressing need to modernize its operations to bolster reliability and safety across its extensive railway systems.

## PROBLEM STATEMENT

They encountered challenges such as the absence of centralized monitoring, managing a sophisticated IP/MPLS Network Infrastructure and lack of awareness regarding the status of their nodes. They relied on manual reporting for availability and SLA monitoring, without the aid of centralized dashboards, helpdesk portals, or remote configuration managers. To address these issues, they require a comprehensive solution that resolves these monitoring and reporting gaps efficiently

## SOLUTION TO THE PROBLEM

TechBridge's solution encompasses the deployment of critical components:

### Network Management System (tbXMS):

- Monitors the network infrastructure.
- Conducts fault and performance management for IP/SNMP-enabled devices.
- Supports various protocols, including SNMP and ICMP.
- Parameters monitored include CPU, memory, link status, bandwidth, errors, losses, and traffic behavior.
- Services provided: Network monitoring, device detection, performance analysis, device management, and fault management.
- Activities include fault management, alarm management, event management, availability monitoring, performance management, correlation, RCA, custom reports, user-specific dashboard, and notification management.

### tbConfigManager:

- Automated configuration deployment and centralized configuration management capabilities.

### Industry

- Transportation Industry

### The Company

- Gorakhpur Railway Station is located in the heart of the city of Gorakhpur in the Indian state of Uttar Pradesh. It serves as the headquarters of the North Eastern Railway. The station offers Class A1 railway station facilities. It has the distinction of having longest platform, 1.35 km long, of India.



## BIG SAVING

Revolutionary automation slashes manpower costs, ensuring unparalleled efficiency and seamless operations

### Server Performance Monitoring (tbXMS):

- Monitors server resources for optimal performance.
- Tracks CPU utilization, disk utilization, CPU load, memory utilization, and operating system parameters.
- Applications Manager provides real-time monitoring for metrics such as memory utilization, disk I/O, network interface, hardware health, and more.

### Unified Dashboard (tbDashboard):

- Presents a centralized view of critical metrics and data.
- Custom reports for insightful data presentation.
- User-specific dashboards tailored to individual needs.

### Database Management Optimization:

- Streamlined database management processes to improve operational efficiency and ensure seamless data access and retrieval.

### Performance Enhancement:

- Implemented measures to optimize network performance and enhance the reliability and safety of railway operations.

TechBridge Consultancy Services played a pivotal role in modernizing Gorakhpur Railway's operations, enabling the railway hub to enhance reliability, safety, and operational efficiency, and position itself for future growth and innovation.

## BENEFITS TO THE CUSTOMERS

### Enhanced Reliability:

- TechBridge's monitoring solutions improved the reliability and performance of critical railway infrastructure, minimizing downtime and enhancing operational efficiency.

### Streamlined Operations:

- Optimization of database management processes resulted in improved data accessibility and retrieval, streamlining railway operations and enhancing overall efficiency.

### Improved Safety:

- By enhancing network performance and reliability, TechBridge's solutions contributed to the overall safety and security of railway operations, ensuring the well-being of passengers and staff.

## Dashboard



#### Contact Us:

Mail Id: [marketing@tech-bridge.biz](mailto:marketing@tech-bridge.biz)  
LinkedIn: <https://www.linkedin.com/company/techbridge-2/>  
Website: <https://tech-bridge.biz>

