

Building A Centralized HR Management System For Noida Metro Rail Corporation (NMRC)

Customer

NMRC

Country

India

Industry

Government



ABOUT THE CLIENT



Noida Metro Rail Corporation (NMRC) is a Special Purpose Vehicle (SPV) formed by the Noida and Greater Noida Authorities to plan and operate urban transport projects in the region. It runs the 29.7 km Noida-Greater Noida Metro Rail Corridor, spanning 21 stations from Noida Sector 51 to the Depot Station in Greater Noida, and has been operational since January 2019. As a public transport body, NMRC aims to deliver a safe, reliable, and modern transit system using state-of-the-art technology.

BUSINESS SITUATION

NMRC's HR operations were largely manual. Activities such as payroll, leave, attendance, and personnel record management were handled through memos, paper forms, files, and Excel sheets. This created multiple operational gaps, including duplicate data entry, delays in MIS reporting, extensive reconciliation efforts, and the absence of a centralized employee database to support real-time decision-making.

With approximately 800–1000 employees across its head office and metro stations, NMRC needed a unified digital system to manage the full HR lifecycle, from onboarding to exit, while integrating with its existing Tally accounting application for payroll posting. NMRC was looking for a technology partner to design, customize, install, and maintain a secure, scalable HR Management System (HRMS) that seamlessly integrates across all administrative offices and provides Employee Self-Service (ESS) access to staff at every location.

The key requirements were:

1. Develop a custom cloud-based HR management system that covers the entire HR lifecycle
2. Automate payroll processing and integrate with Tally for accounting entries
3. Provide Employee Self-Service (ESS) access across all NMRC offices and metro stations
4. Migrate existing HR data from Excel and manual records into the new system without loss of integrity
5. Set up role-based access for appraisees, appraisers, reviewers, HR, finance, and administrators
6. Train approximately 70 NMRC staff to act as master trainers and ensure smooth adoption
7. Deliver onsite and call-based support during the 12-month maintenance period

THE SOLUTION

Unthinkable built a centralized, web-based HRMS for NMRC, replacing manual workflows with automated, role-based processes. The new platform brought all HR functions under a single, secure system, integrated payroll with Tally, and provided employees with a self-service portal accessible from any NMRC location. The system was designed to handle up to 1000 concurrent users while maintaining consistent operations across the head office and the 21 metro stations.

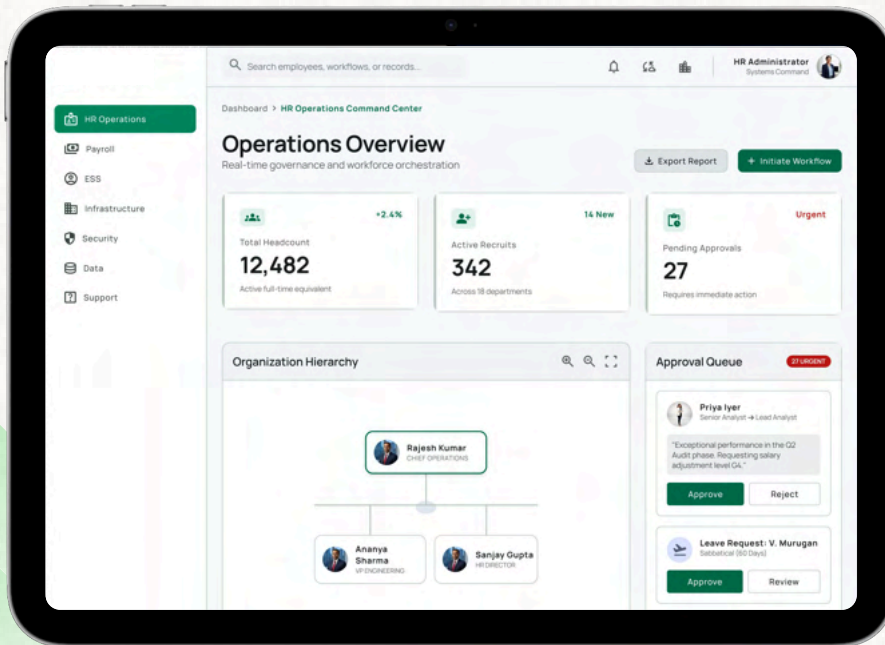
Some of the key aspects of the project included:

Developing An End-To-End HR Management System

The HRMS was built to manage 14 distinct HR process areas defined by NMRC, including manpower planning and recruitment, promotion, succession planning, and operations support.

Each module was designed to exchange information across processes, so a single update flows through related workflows without duplicate data entry.

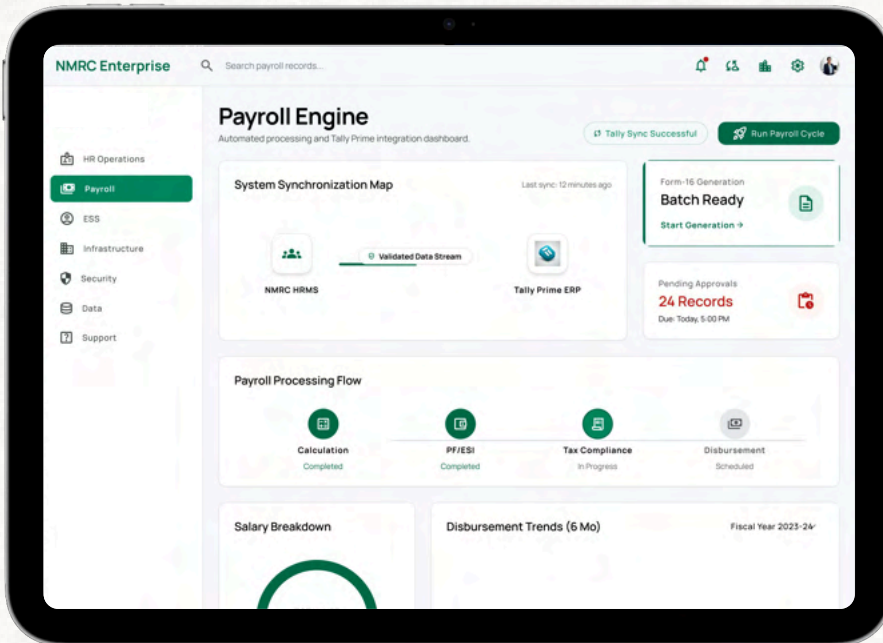
- ✔ Built an HRMS covering core HR, payroll, leave & attendance, performance management, training, recruitment, and exit management.
- ✔ Structured the system around defined roles, including employee, manager, HR, finance, and administrator
- ✔ Enabled centralized employee master records with personal, professional, and statutory details
- ✔ Automated workflows for transfers, promotions, increments, and approvals



Building A Payroll & Tally Integration

Payroll at NMRC was previously run manually in Excel, resulting in reconciliation gaps with the accounting system. The new platform runs payroll as a standalone module within HRMS, pushing entries directly into Tally, eliminating the need for parallel data handling across finance and HR teams.

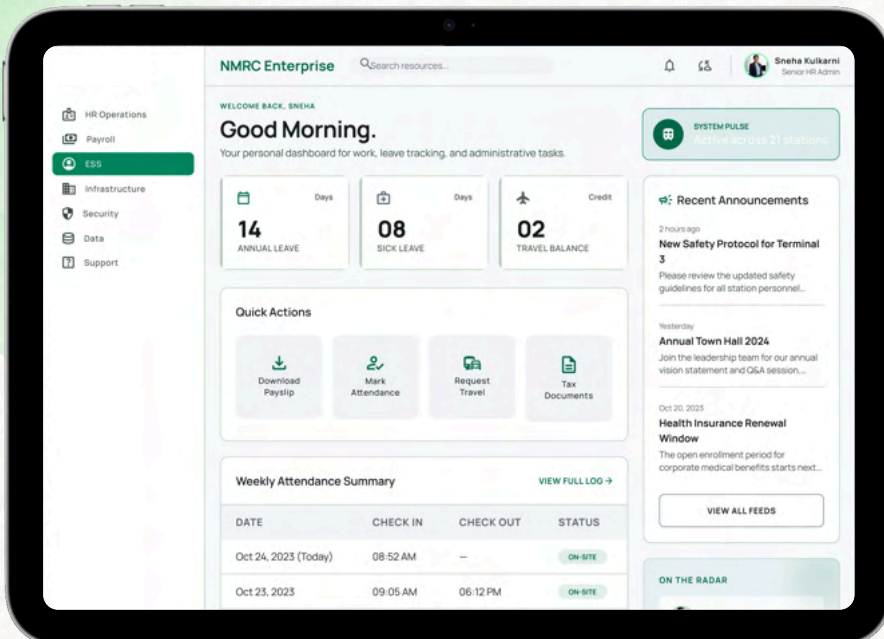
- ✔ Automated salary calculations including basic pay, allowances, deductions, PF, ESI, and professional tax
- ✔ Integrated with Tally for posting payroll entries, eliminating duplicate data handling
- ✔ Enabled TDS calculation, Form-16 generation, and statutory return preparation
- ✔ Supported loan management, reimbursements, and arrears processing



Building An Employee Self-Service (ESS) Portal

While the HRMS administration is based at the NMRC head office, ESS was designed so that employees across all 21 metro stations can access the system via the internet. The portal acts as a single point of access for everyday HR needs, reducing dependence on physical forms, memos, and back-and-forth with the HR team.

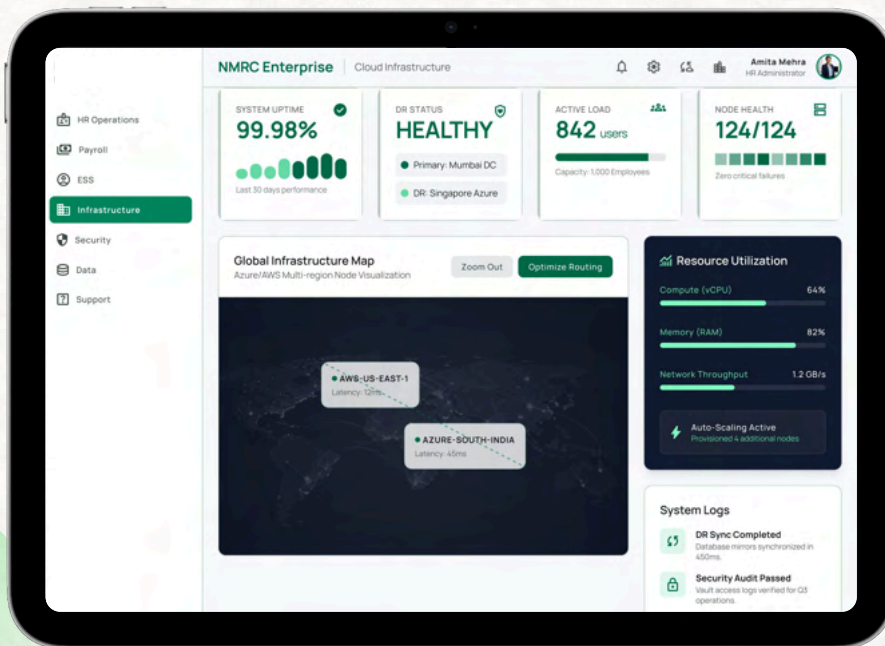
- ✓ Provided a user-friendly dashboard with leave balances, attendance, payslips, and announcements
- ✓ Enabled employees to apply for leave, raise reimbursement claims, submit tax declarations, and view appraisals
- ✓ Supported document uploads, grievance tracking, and tour/travel requests
- ✓ Made the portal accessible from all NMRC locations through internet connectivity



Hosting Our HRMS On A Scalable Cloud Architecture

The system was sized for NMRC's current strength of around 800 employees, with headroom to scale to 1000 as the metro network grows. The cloud setup included a separate disaster recovery site, so HR operations stay available even if the primary environment goes down.

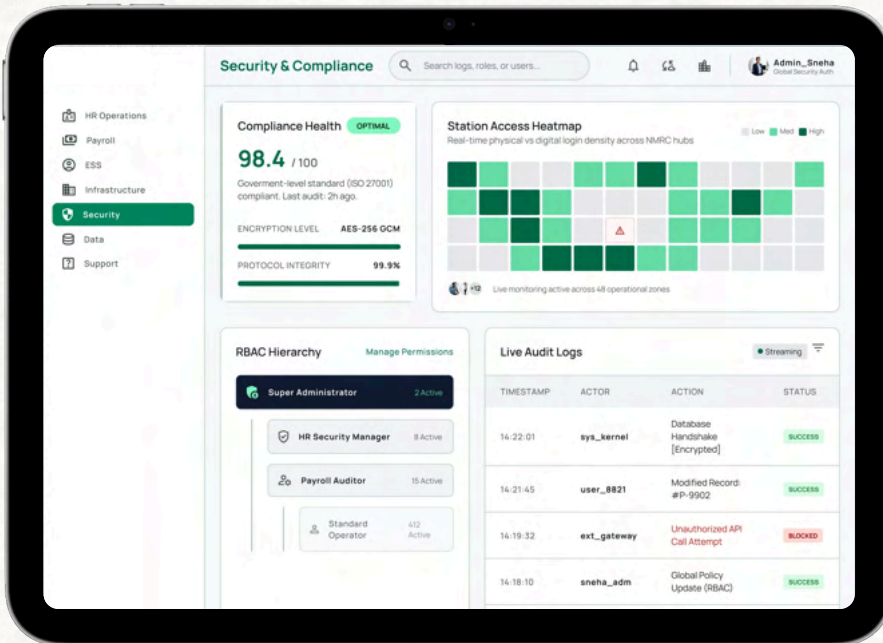
- ✔ Hosted the HRMS on a secure cloud environment with built-in disaster recovery
- ✔ Designed the system to handle 800—1000 concurrent users without performance degradation
- ✔ Built browser-based access compatible with all major browsers and mobile devices
- ✔ Ensured high availability across the head office and all metro station locations



Integrating Security & Compliance Into The Solution

As a public sector entity, NMRC needed the system to comply with the Information Technology Act and related government regulations. Security was built in at the functional, user group, menu, and transaction levels, with safeguards designed to protect employee data against deliberate or accidental misuse.

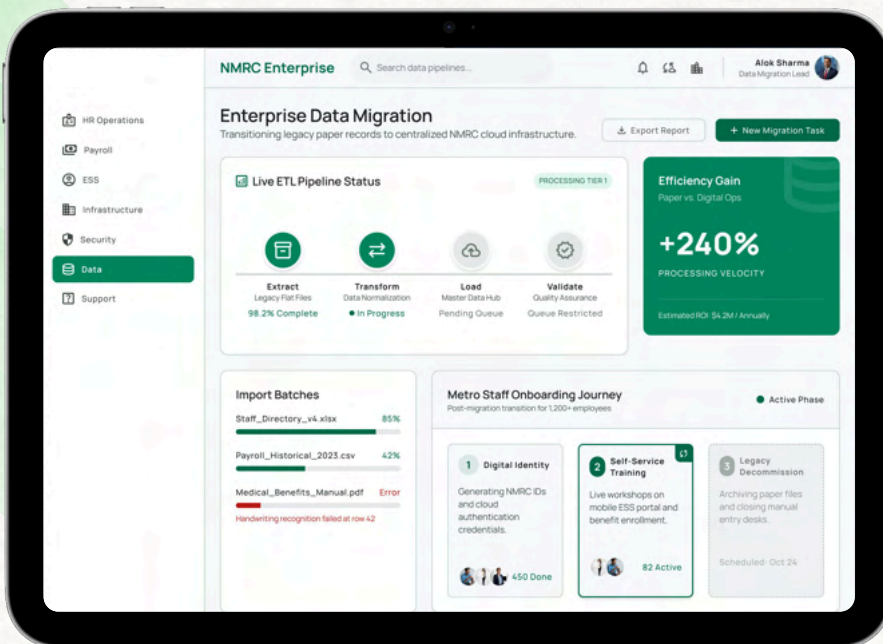
- ✔ Implemented role-based access control with single sign-on capability
- ✔ Built audit trails for all transactions to support compliance reviews
- ✔ Complied with the Information Technology Act and applicable government regulations
- ✔ Protected against unauthorized access with password policies, account lockouts, and activity logging



Ensuring Data Migration & Onboarding

NMRC's historical HR data was stored in Excel sheets, paper records, and ad hoc files. We worked with the existing data in its available format, structured it into the new employee master, and validated entries so the team could move to the digital system without losing continuity from earlier records.

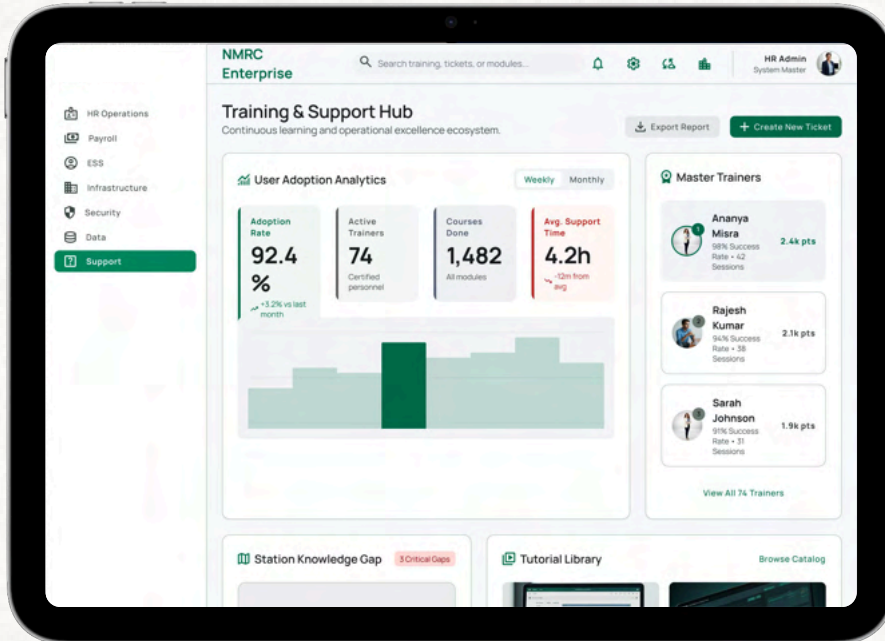
- ✔ Migrated employee data from Excel sheets and manual records using a structured ETL approach
- ✔ Created a centralized employee database with all required attributes and validations
- ✔ Ensured data accuracy during the transition from manual to digital operations



Providing Training & Ongoing Support

NMRC requested a master-trainer model to pass knowledge internally, rather than relying on external trainers in the long term. We trained 70 employees in batches of 20 at the head office, then provided 12 months of support, with the option to extend for another 6 months.

- ✓ Conducted onsite training at the NMRC head office in batches of 20 for 70 master trainers
- ✓ Provided user manuals, FAQs, and self-paced learning materials for all staff
- ✓ Delivered 12 months of post-implementation support, including onsite visits and call-based assistance
- ✓ Handled bug fixes, system updates, and continuous improvements during the maintenance period



IMPACT

The new HRMS transformed how NMRC manages its workforce, replacing scattered manual processes with a single digital platform. Built by Unthinkable, the system automated payroll, leave, and attendance workflows that previously required significant manual effort, while integration with Tally eliminated duplicate accounting entries.

Employees across all 21 metro stations and the head office can now access self-service tools for leave, payslips, claims, and personal information from any location. HR and finance teams have real-time visibility into employee data, statutory compliance, and operational reports, which has reduced reconciliation effort and supported faster, more accurate decision-making at NMRC.

NUMBERS THAT SHOWCASE THE IMPACT

1000+

Employees Onboarded
On A Single HRMS
Platform

21

Metro Stations Connected
Through Unified ESS Access

14

HR Process Areas
Automated End-To-EndR

HAVE A SOFTWARE PRODUCT VISION IN MIND?

Let's Talk 

Set up a personalized consultation with our technology expert

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