



Keretapi Tanah Melayu Berhad (KTMB)

Workforce Management & Crew Planning



Industry

Rail



Challenge

Automate Rail
Workforce
Management



Solution

Trapeze Workforce
Management

Overview



~900 crews



150 million
passengers per year



13 Depots



1,641 km
of network

Results

- ✓ 70% timesaving producing rosters
- ✓ 30% increase in crew productivity
- ✓ Increased employee satisfaction (due to the WFM mobile app)
- ✓ Workflows that could take days, now done in minutes



Background

Keretapi Tanah Melayu Berhad (KTMB) is Malaysia's national railway operator with a rich history dating back to its establishment in 1885. KTMB plays a crucial role in connecting various parts of Malaysia through its extensive railway network, serving both passengers and freight transportation needs on its network spanning 1,641km. KTMB transports approximately 150 million passengers and about 54,000 TEUs of freight per year.

The company operates four train services:

Electric Train Service (ETS) - KTMB's rapid intercity service connecting major cities like Kuala Lumpur, Penang, and Ipoh. Offers fast and efficient transportation for passengers.

Intercity - Provides long-distance train services connecting different states and regions within Malaysia. Serves both domestic and international travellers.

Commuter - Offers urban and suburban rail services in major cities such as Kuala Lumpur. Provides a convenient and affordable mode of transportation for daily commuters.

Cargo - Handles the transportation of goods and freight across Malaysia, supporting various industries and businesses with reliable logistics solutions.

With a strong focus on safety, efficiency, and customer satisfaction, KTMB continues to be a key player in the Malaysian rail industry.

Opportunities and Challenges Managing Staff



MANUAL
PROCESS



PAPER
FORMS



EMAIL
& FORMS



REPORT
& DATABASE

With continuous growth in passengers, cargo, and services, KTMB faced several workforce management growth challenges, affecting its operational efficiency and service quality.



The operations team were based in each regional depots, alongside the planning and scheduling department. Both teams were using a set of tools such as excel spreadsheets and logbooks to record, track changes and manage their staff allocation and duty assignments.

For its people and vehicle management operations, the organisation was using 7 different siloed systems and databases for Train Timetable

Management, Human Capital Management, Driver Profile, Time Management, Overtime and Leave Management, and other related management. Communication and transfer of information across stakeholders was via mobile using WhatsApp, SMS and/or Email, and hard copy paper.



KTMB's Key Workforce Management Challenges

Complex Scheduling and Rostering

KTMB faces the challenge of managing scheduling and rostering for its diverse operational units. With approximately 1000 crews across 13 depots; handling training, qualifications, employee preferences, and availability has become cumbersome and error-prone due to manual workforce management processes. These inefficiencies led to suboptimal resource allocation and increased operational costs.

Dynamic Operations

KTMB operates in a highly dynamic environment. Train delays, cancellations, schedule changes, and unexpected absences directly affect crew assignments on the day of operation.

The Schedule Manager must adapt quickly to frequent operational schedule changes and effectively communicate with all parties to ensure uninterrupted service. Notably, the lack of visibility beyond the depot where the schedule manager operates, adds to the challenge.

Accurate Attendance Tracking and Compensation

Ensuring accurate attendance tracking and calculating correct allowances and compensations in accordance with the Collective Agreement is never straightforward. This complexity is amplified in dynamic environments and when relying on paper-based processes.

Considering the aforementioned challenges, KTMB recognised the necessity for a comprehensive digital solution for all their WFM requirements.

Such a solution would streamline scheduling, enhance rostering accuracy, and improve overall workforce productivity and communication across all parties involved.

Solution

To address these issues, KTMB embarked on a comprehensive evaluation process to identify a system that could digitise and automate their business processes.

After extensive workshops and technical discussions with multiple system providers, KTMB selected Trapeze's Crew Planning System (CPS) as their preferred solution.

Digitalisation and Centralisation of Data

The CPS serves as a centralised solution, consolidating all relevant crew data across the entire company. It is accessible to duty planners, roster planners, and operations managers.

The CPS stores and provides digital access to essential information, eliminating the need for manual processes and paperwork. Unlike traditional methods that might take several days, the CPS system achieves the same results within minutes. Additionally, it seamlessly integrates with KTMB's seven other resources and vehicle management systems, ensuring information integrity throughout the organisation's operations.

Duty Planning

By providing a robust common platform, CPS significantly reduces the effort required for KTMB's day-to-day tasks. It streamlines access to results, leading to time efficiencies and supporting well-informed decision-making.

CPS acts as an efficient tool, simplifying and streamlining the generation of duty plans, daily employee allocation, and personnel administration. This translates to a more effective use of personnel and vehicles, with a constant live view offering detailed insights into the daily operations.





Duty Management

By leveraging enhanced duty planning capabilities in the solution, KTMB can optimise its workforce and reduce overhead costs. This is achieved by applying Work Force Management processes and procedures to core rostering functions.

CPS offers a comprehensive Duty Management solution for managing employee attendance, daily operational duties, and responses to incidents, disruptions, planned absences, and unplanned leaves. Additionally, CPS provides robust yet flexible rule validation and fully automated report generation.

Communication

CPS fosters real-time communication between KTMB stakeholders and transportation staff. Employees can conveniently access information through a web interface or mobile app. This allows them to view their shift plans anytime and submit requests for shift swaps, specific work hours, leave applications, and overtime work directly from their mobile devices.

Additionally, staff can clock in and out using the app, streamlining timekeeping processes and reducing communication costs.

Reasons for Choosing Trapeze Group's Solution

In addition to meeting all their WFM requirements, KTMB selected Trapeze Group's workforce management solution for its proven track record in optimising workforce efficiency and enhancing operational performance in the rail industry.

Trapeze Group's solution stood out for its extensive features tailored to the rail industry and their ability to address KTMB's specific challenges. The system's ability to automate scheduling, rostering, real-time monitoring, and the crew mobile app aligned perfectly with KTMB's goal of improving workforce scheduling and rostering.

"With user friendly features and functions, each planner can easily monitor, search and track for crews/shifts information on one screen" concurred **Mr. Selamat Mahmod, KTMB CPS Executive.**

Trapeze Group also offers its Workforce Management software suite for life via annual maintenance where free upgrades are provided so the software is never obsolete and always on the latest release.

Digitise your process, improve your reliability with Trapeze's CREW PLANNING SYSTEM

Results and Business Outcomes for KTMB

After implementing Trapeze's Workforce Management for CPS, KTMB experienced significant improvements in various key performance indicators, highlighting the positive impact of the solution on their operations and aligning with their goals of enhancing operational efficiency and service quality.

Scheduling and Rostering Efficiency – CPS reduced complexity by digitalising and automating business processes in a user-friendly way. Workflows that could take days are now reduced to minutes.

"The speed of roster creation is much faster, easily a 70% time saving compared to the previous manual creation in MS Excel. Paperless roster distribution is simple and effective. No missing new rosters, nor negligence in rostering since the roster layouts are in a proper structure and are clearly identifiable."

Mr. Selamat Mahmod, KTMB CPS Executive.

Enhanced Crew Productivity – Optimised schedules and rosters, free of conflicts and issues, have led to a 30% increase in crew productivity (train operating hours) on high-frequency services over the past year.

"Before this, roster management required one planner for footplate and four planners for onboard crew, meaning a total of 5 planners. But now both the footplate and onboard rosters can be easily handled in CPS by one planner. Crews and Shifts distribution is much easier, crew attendance and unassigned shifts are easy to manage."

Mr. Mohd Mansor, KTMB CPS-Senior Executive.



Real-Time Crew Communication – The introduction of a mobile app has significantly enhanced communication with crew members. The app not only provides easy access to rosters but also empowers them to select shift preferences and book planned or unplanned leave. This increased control over their schedules fosters a sense of ownership and boosts morale among the crew.

Crew members are happy with the Crew App, because now they can have a full view not only of the roster but also approved leaves and holidays.”

Mr. Selamat Mahmod, KTMB CPS Executive.

Additional Benefits of Trapeze’s Workforce Management Solution for KTMB



Optimised Scheduling

Trapeze’s solution enabled KTMB to create optimised schedules based on factors such as crew availability, skill sets, and regulatory requirements. This streamlined the scheduling process and ensured efficient utilisation of resources.



Comprehensive Reporting

Trapeze’s solution offered detailed reporting capabilities, enabling KTMB to analyse key performance metrics, identify trends, and make informed decisions to drive continuous improvement.



Integration Capabilities

The solution seamlessly integrated with KTMB’s existing systems, ensuring a smooth implementation process and minimal disruption to ongoing operations.

Conclusion

By leveraging Trapeze Group’s workforce management solution, KTMB was able to address their workforce management challenges effectively and transform their operations for improved efficiency and performance.

The prospects for KTMB look promising, with continued enhancements in operational efficiency and service quality. For other rail operators looking to improve their workforce management practices, Trapeze’s solution stands out as a proven and reliable choice.



The successful adoption of Trapeze’s solution has not only transformed KTMB’s operations but has also set a benchmark for other rail operators to follow. Join the ranks of successful rail operators like KTMB and elevate your workforce management practices to new heights with Trapeze.

For enquiries on how Trapeze’s workforce management solution can benefit your rail operation, please contact Trapeze Group by scanning the QR code.



TRAPEZE GROUP

Trapeze Group works with public transport agencies and their communities to develop and deliver smarter, more effective public transport solutions. For more than 25 years we have been Here for the Journey, evolving with our customers around the world to helping them move people from point A to Z, and everywhere in between.

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