

Opturion Roster Optimisation - Metro Trains Melbourne

Background

Metro Trains Melbourne (MTM) operates 226 six-carriage trains across 998 kilometres of track, transporting 450,000 customers each day. The project involved the Rolling Stock Division (RSD) that employs about 450 staff across six depots. The maintenance staff are unionised, and there are demarcations between trades.

Business Requirements

RSD believed that current Rolling Stock roster patterns required improvement for the following reasons:

- There were potentially high levels of fatigue risk for rail workers doing safety critical tasks;
- Different trades and supervisors worked different patterns, making team building impossible;
- There were many workers aged over 45 years, some of whom were reporting significant difficulty working night shifts;
- Staff were receiving significant additional payments due to the design of the shift patterns;
- Staffing requirements across the day were changing - although 24-hour coverage was still required, the maximum number of staff on shift were required between 19:00 and 03:00.



The Solution

MTM engaged Opturion for a project with several objectives:

- Analyse the current shift patterns using FRI (Fatigue Risk Index) and FAID (Fatigue Assessment Tool from Interdynamics), and assess against the Alertness CRC fatigue rules (www.workalert.org.au) to demonstrate that the current shift patterns were associated with an unacceptable level of fatigue risk;
- Analyse some existing alternative roster options;
- Identify new shift patterns that minimised fatigue risk levels and reduced penalty payments;
- Demonstrate that new shift patterns maximised staff on shift between 19:00 and 03:00;
- Recommend options for implementation.



Customer Outcomes

Opturion delivered a report regarding the existing rosters that identified high levels of fatigue risk, particularly for the night shifts, and provided advice regarding better options for older workers. The FAID analysis closely correlated with FRI and confirmed the results.

Opturion also created roster options that reduced fatigue risk, reduced cost and maximised staffing levels between 19:00 and 03:00. In hindsight, cost reduction was not surprising as the penalty payments are intended to compensate for increased potential fatigue risk associated with longer working hours and shorter between-shift rest breaks. The project has now moved into the consultation and change management phase.

Further Information

Please contact Opturion for a demonstration, or give us some data that we can use to identify potential benefits.



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