Wabtec CORPORATION

Wabtec's Digital Solutions

Movement Planner

Make enhanced rail performance a reality through increased network velocity and capacity

Movement Planner Quick Facts

- Currently installed with two railroad operators, two additional deployments in progress
- Real-time train movement, route management and planning
- Conflict detection, resolution and automatic route setting
- Interactive train graph to improve decision making on train meet/pass scenarios
- Compare actual vs. planned schedules, historical performance and scenarios

Outcomes & Benefits

- 10% increase in network velocity**
- 50% reduction in expired crews**
- Increase network capacity & fluidity
- Improve schedule adherence & on-time performance

**Based on results at a Class 1 railroad. Results vary depending on the type of network and operation.

Movement Planner (MP) provides real-time rail traffic planning & optimization, enabling freight to move more efficiently using existing rail networks.

Wabtec's Movement Planner solution is composed of three tiered capabilities to optimize railroad day of operations from planning through execution.

Network Visualization

The Network Visualization function helps detect conflicts in the entire network and allows for manual resolution of conflicts. It gives real time train status and uses a Train Performance Calculator (TPC) to model train travel time with an accuracy of +/- 5 minutes for a 2 hour horizon. It also generates a look ahead forecast of 8 to 12 hours to better plan for crew call and asset allocation.

Network Optimization

The Network Optimization capability provides automated train meet/pass resolution based on Business Objective Functions (BOF) with a reliable and stable plan. This results in reduced variability of dispatching decisions and their impact on the network.

Auto-Routing

The Auto-Routing function provides automatic execution of optimized plans thus reducing human factors and improving productivity. It also improves plan compliance and maximizes benefits from the Movement Planner system.

Optimize Network from Planning to Execution

Visualize Full Network State → Optimized Conflict Resolution → Real-time Train Plan Routing Request → Execution within Train Dispatch

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