



Telvent SmartMobility™ Rail Suite

Take Control of Your Rail Network

Moving freight and passengers over land more efficiently than any other mode of transport, the world's rail lines represent an integral part of the global economy. While world trade depends on the use of safe, secure and efficient rail infrastructure, rail managers struggle to increase system use while contending with modest trade growth. Savvy business leaders need to find new ways to improve the capacity and efficiency of their operations in this challenging environment.

Telvent brings 40 years of experience developing, deploying and supporting complex transportation management solutions worldwide. The company offers a proven track record of providing intelligent transportation solutions tested in some of the world's most complex and congested markets. These comprehensive, flexible solutions help you streamline rail operations, enhance safety and security, protect the environment and improve your bottom line.

Manage Your Entire Rail Network from a Single Platform

The Telvent SmartMobility Rail Suite integrates all rail systems and subsystems into a single platform that

maximizes operational efficiency. The system provides real-time status information on all rail facilities through a consolidated platform enabling managers to:

- More effectively and efficiently manage and coordinate train arrival/departure and cargo handling to maximize throughput
- Provide superior service and assistance to trains moving across the system
- Avoid accidents by monitoring movements in real time
- Develop realistic simulations for training and emergency planning purposes

One Product Suite, Four Independent Modules

The Telvent SmartMobility Rail Suite can be configured to meet your needs, whatever the size of the rail network you manage. The suite offers four modules, each of which is available separately for tailoring a system designed to your unique specifications.

Telvent SmartMobility Rail Traffic

When you need efficient management of the systems, activities, assets and users at work on your lines, Telvent SmartMobility Rail Traffic offers a flexible, robust solution that increases network traffic capacity, improves traffic regularity, reduces risk by managing emergency situations in real-time and rationalizes railway operations. It offers

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advanced, centralized traffic management for any railway network, combining your systems into a centrally controlled platform.

- Train Identification and Position Tracking – displays train identification and position in real time. Interoperability allows the exchange of information between traffic control centers, even those managed by different agencies.
- Automatic Route Setting – provides routine settings for circulation conditions defined by the operator. Detects differences in scheduled times and establishes traffic priorities based on the current traffic situation.
- Estimated Time of Arrival – estimates arrival times depending on current conditions and train locations.
- Planning Tools – contains off-line tools to develop new traffic plans and analyze their results before implementing them. It also offers real-time tools to reschedule the current traffic plan in order to correct significant deviations from the timetable or to adapt traffic to unexpected situations.
- Other important modules include Simulation Tool, Signaling Device Management, Shunting Control, Speed Control, Alarm Management and Reports, Emergency Response Management and Maintenance Management.

Telvent SmartMobility Rail Station

Telvent SmartMobility Rail Station enables you to create a complete central office from which you can control and manage rail station systems and communications networks. You can also take over control of an individual station when needed. The system manages implementation of maintenance plans and handles emergency situations in real time to increase rail station safety.



- Passenger/Traveler Information System – increases public comfort and safety by obtaining and posting real-time traffic information on display panels and public address systems.
- Planning Tools – uses off-line tools to develop energy efficiency and emergency plans. Real-time planning tools allow you to reschedule in the current emergency plan in order to be able to face any unexpected situation.
- Electromechanical Facilities in Stations – improves efficiency by controlling individual station infrastructure from your central office, such as lighting, ventilation, elevators, stairways, drains pumps and power supplies.
- Maintenance Management – allows you to stretch

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your resources by performing preventive and corrective maintenance planning, minimizing upkeep costs.

- Other important modules include Emergency Response Management, Intercommunication/Public Address System, Alarm Management and Reports, Access Control System, Security Management System, Station Power Management System and Simulation Tool.

Telvent SmartMobility Fare Collection

Accuracy in fare collection represents a crucial component of your business success. Telvent SmartMobility Fare Collection takes control of this process to maximize customer satisfaction while ensuring smooth passenger flow. Integrate on-site field equipment with management software to manage your network at all points. The system offers three sub-modules: Station Management, Central Management and Fare Integration, which enables you to issue a single ticket for different modes of transportation, such as bus, train and taxi.

- Station Management – provides local management of station equipment and data, preparing you to sell and validate tickets precisely and efficiently and to control passenger access to the transportation system. The Station Management sub-module includes functions such as ticket vending, gate access control and ticket validation.
- Central Management – enables central control of multiple stations to increase overall effectiveness and efficiency so that your stations keep passengers satisfied and you can maximize your bottom line. The Central Management sub-module offers capabilities that allow you to control communications, data collection, maintenance, revenue and reporting, and more.

- Fare Integration Management – serves as the Transport Authority Back Office, allowing you to streamline management of the fare integration process.
- Capabilities allow you to configure fare policies, control card ticket stock, track customers, manage reporting, integrate retailers and more.

Telvent SmartMobility Light Rail

Simplify light rail global management by integrating signal priority, traffic management, energy control, fare information and station management solutions. This advanced transportation management increases efficiency while improving safety and reducing delays and risk.

- Light Rail Traffic Management and Regulation - allows centralized traffic management and regulation of light rail systems to increase network traffic capacity, improve traffic regularity, reduce risks and rationalize railway operations. Use this module to transfer management from the driver to the tramway management center in emergencies.
- Light Rail Station Management – monitors and manages every service and component of light rail stations, from CCTV to air-conditioning.
- Power Management – controls and remotely supervises traction power facilities as well as auxiliary wayside devices for increased energy efficiency.
- Communications – optimizes energy consumption and provides reliable, secure and high performance communication networks that ensure availability during emergencies.
- Other systems include Fare Collection Management (single ticket for different transportation modes), Priority System and Passenger Information System.

State of the Art Technology, Ultimate Flexibility

The Telvent SmartMobility Rail Suite is the most advanced solution available for managing rail assets. Based on Telvent's own supervisory control and data acquisition

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(SCADA) technology, this software gives operators a comprehensive set of management and security tools running on completely redundant systems to prevent data loss and maintain guaranteed availability of 99.9 percent. The suite also offers the ultimate in integration flexibility, smooth deployment and ease of use:

- Install the entire suite or select a single module and integrate it into your current system.
- The entire system is scalable – add more modules at any time to expand the system.
- An intuitive interface reduces training time and keeps the most important details in front of key personnel at all times.

With all the challenges involved in meeting the needs of the rapidly changing rail industry, managers need every possible advantage to maximize the efficiency and capacity of their infrastructure.

Intelligent rail executives worldwide depend on the Telvent SmartMobility Rail Suite. Contact Telvent today to learn how we can improve your operation!

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