



Wayside System Data Management Module

Wayside Intelligence - Wayside System Data Management Module (WSDMM)

KB Signaling's Wayside Intelligence is an advanced IoT, Data, and Analytics platform purpose-built for the rail wayside. It provides modern solutions for data acquisition and edge processing, enabling railroads to digitalize operations and adopt a cost-effective, data-driven approach to condition monitoring. By transforming distributed asset data into actionable insights, Wayside Intelligence supports safer and smarter rail mobility.

Wayside Intelligence WSDMM

Key Benefits

- Wayside device log processing and data analytics at the edge
- Supports remote configuration and software provisioning
- Secure, containerized, and scalable platform, based on open data standards and protocols
- Compatible with KB Signaling and third-party field equipment
- Compliant with AREMA and CENELEC standards

Customer Benefits

Enabling Technology for Analytics

The WSDMM can run software for ElectroLogIXS®, VHLC, and HXP-3 Log capture, VTItrack circuit operation reporting, ElectroLogIXS XP4crossing activity reporting, and many other wayside applications. In addition, WSDMM can enable crossing performance reporting and analytics from activity logs provided by third-party crossing controllers. By performing data management and analysis at the wayside, the WSDMM enables the deployment of advanced analytics while meeting bandwidth constraints.

Rail-Grade Hardware

The WSDMM is a robust solution that is deployable at wayside locations worldwide. It is compatible with AREMA and CENELEC standards, meeting or exceeding all technical hardware requirements of ITC-AAR S-9202B.



General Description

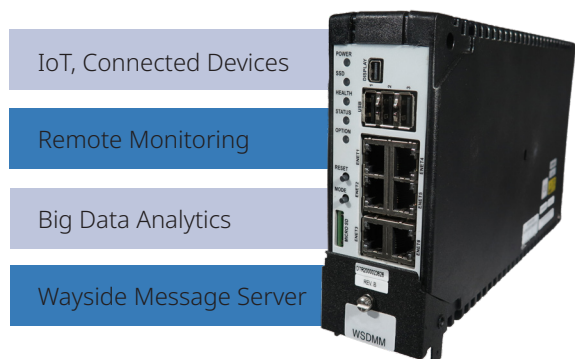
The Wayside System Data Management Module (WSDMM) is a field-installable platform for wayside data acquisition, processing, storage, and analytics. It manages IoT data from wayside equipment, including KB Signaling's and third-party recorders and controllers. In addition, WSDMM supports efficient remote management and updates, dramatically reducing trips to the field for new configurations or software updates. This powerful, Linux-based edge data processing device leverages a big-data approach to analytics with the bandwidth-constrained reality of wayside signaling. The WSDMM features an intuitive user interface and a suite of applications for data visualization and analysis at the edge. In addition to being an analytics-enabling platform, the WSDMM acts as a local gateway with layer-2 network functions and as an agent for system management capabilities, including remote access, software updates, and alarm consolidation at the wayside.

Powerful Wayside Platform

The WSDMM is a 64-bit x86, Linux-based platform with a 6-port layer-2 Ethernet switch. Its ecosystem employs open standards and is Big Data optimized. With its modular design, standards-based interfaces, and containerized platform, the design adapts and expands to meet the wayside data processing needs of today and the future. In addition, it is available with Ubuntu Server Linux operating system, and foundational data applications, allowing customers to provide their configurations.

Multiple Form Factor Options

The WSDMM is compatible with railroads' existing infrastructure. It installs directly into the ElectroLogIXS 4-slot and 9-slot systems, on a wall, DIN-rail, or B-2 relay rack with an optional docking station and mounting kit.



Wayside Intelligence WSDMM

Equipment Characteristics

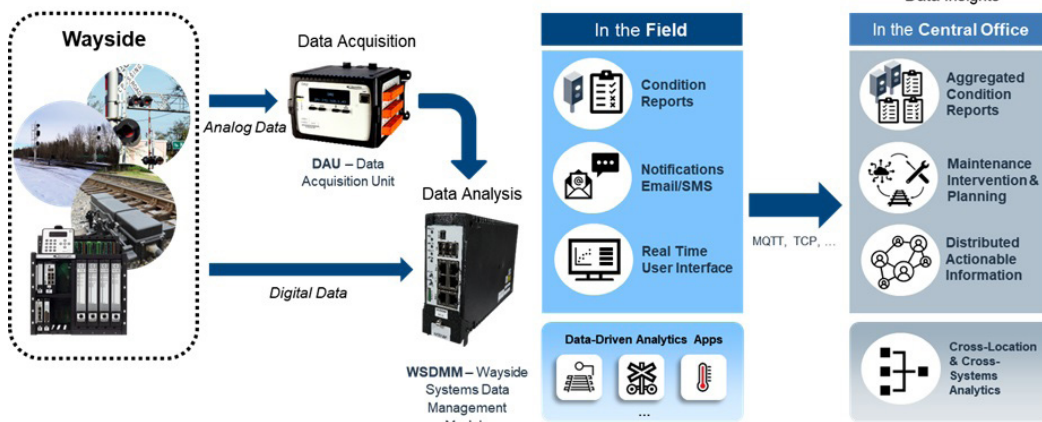
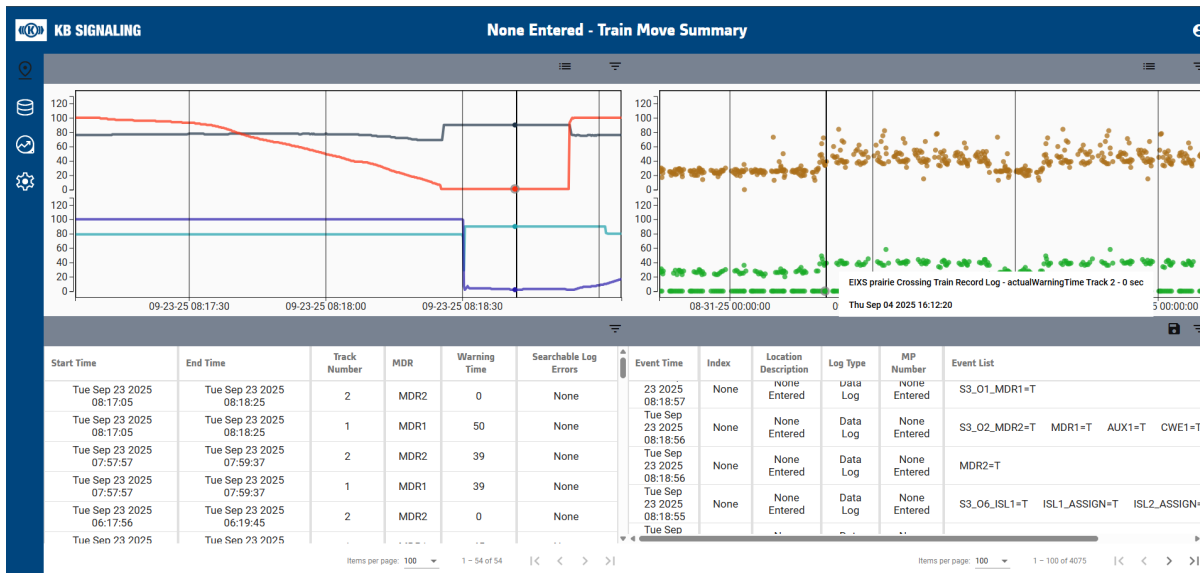
Processor	E3930 dual-core 64-bit x86 Apollo Lake processor
Hard disk drive	Mini SATA SSD 32 GB or 64 GB
Memory	8 GB DRAM
I/O	3 USB 2.0 type-A ports Mini DisplayPort
Networking	Integrated 6 port layer-2 100Base-T ethernet switch
Power	9.5—16.5VDC power input, AREMA compliant Integral DC/DC converter, AREMA compliant isolation
Temperature	-40°C to 70°C
EMI	FCC Part 15, Class A, AREMA 11.5.1, AREMA 11.5.2, CENELEC 50121-4
Safety standards	CE, EN-50122-1
Standards compliance	AREMA communications and signaling, section 11.5.1, Class C, e 50125-3, ITC-AAR S-9202B (Hardware)



WSDMM Use-Cases

Refer to the Wayside Intelligence Analytics Applications documentation.

WSDMM User Interface



Contact your KB Signaling Business Development Manager
Call 1-800-825-7090, or Email us at aso.techsupport-kb@alstomgroup.com for more information today.

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