



SOLUTION GUIDE

Intelligent Transportation Systems

(FOR RAIL)

Get your rail operations back on track with a powerful information and communications system

Whether you're limiting occupancy to enforce social distancing, reducing headways to increase service frequency, or adjusting timetables to address new ridership patterns, having real-time, accurate information is critical to safe, reliable rail operations in the post-COVID normal. Your Intelligent Transportation System (ITS) for rail must be equipped with innovative, real-time technology to address current and future challenges.

The only ITS solution equipped with Intelligent Decision Support (IDS), Vontas OnTrack provides your rail operation with up-to-the-second situation awareness of every vehicle on the network. This information and communications system for rail provides the real-time traveler information and infotainment capabilities your riders expect, to be fully informed along their journey.

It is fully integrated with your existing mission-critical software for optimal responsiveness to operational needs. The redesigned Mobile Data Terminal interface is intuitive to use and allows operators to stay focused on driving while being fully aware of changes to service.

Vontas OnTrack is a cost-effective information and communications solution for Streetcar, Light, Heavy, Commuter, and High-Speed Rail operations, designed specifically with maximum configuration possibilities. This agility lets you quickly adopt the latest advancements that drive public engagement and rider satisfaction, so you're at the forefront of change.

17k

vehicle installations
in North America

100

implementations
worldwide

AGENCY BENEFITS

Deliver seamless rail service and improve network efficiency with real-time information.

Solve Challenges in Real-time

Get a central, organized view of real-time operations, accurate tracking of every train system-wide, and unparalleled data integration with third-party systems for quicker decision-making. Proactively be alerted of issues and resolve them to reduce passenger wait time. Prioritize critical action items based on your business rules.

Resolve Asset Issues Before They Happen

Improve preventative maintenance capabilities and optimize rail fleet maintenance programs by capturing real-time and predictive diagnostic data.

Maintain Desired Headways

Manage headways and implement traffic signal priority to improve on-time performance especially on busy lines.

Make Communications Flexible and Fail-safe

Provide flexibility to choose between an open voice and a closed radio system. Integrate Voice over Internet Protocol (VoIP) for a hybrid communications environment consisting of multiple voice, data, radio, and cellular modes.

Gain Actionable Insights

Understand historic CAD/AVL data to help you improve headway planning. Utilize ridership information by location and time to plan service frequency improvements.

PASSENGER BENEFITS

Make rail journeys easier, safer, and comfortable with real-time information and infotainment.

Make Operations Safer

Improve response time and accuracy during emergencies with GPS location, real-time disruption management, and automatic notification to key stakeholders. Reduce accidents with improved visibility via camera integration.

Keep Passengers Fully Informed

Leverage AVL data generated from the system to provide riders with pinpoint accurate, real-time train arrival predictions on station and platform signs, on-board infotainment systems, IVR, web, and mobile applications. Reduce uncertainty for commuters by immediately relaying service disruptions and information on alternative routes and bus bridging.

Increase Rider Comfort

Provide real-time crowding information to help passengers observe social distancing and decide whether they should hop on or wait for the next less-crowded train. Inform commuters of travel times and transfers, safety bulletins, weather, news, and the like, and provide engaging content to accompany them on their rail journey.

PRODUCT FEATURES

Headway Management

Provide accurate, automated predictive scheduling adjustments based on live train location.

Incident Management

Prioritize critical incidents and execute associated Action Plans. Monitor pending incidents and escalate as needed.

Bus Bridge and Disruption Management

Quickly build service restoration strategies utilizing quick point/click and workflow wizard technology. Create ad hoc / on the fly, unscheduled service on a short-term basis, including special events, bus bridges, and alternate/temporary stops. Communicate service notifications instantly to passengers across communications channels.

Real-Time AVL Map

Show real-time location of rail rolling stock and access most features dispatch needs right off the map. Filter map views based on multiple criteria to get specific information (e.g., late vehicles on Line 7).

Intuitive Mobile User Interface

Help operators communicate more efficiently with the control center and get timely performance feedback with a large, color touchscreen Mobile Data Terminal (MDT) that is intuitive to use and requires no formal training to operate.

Pre- and Post-trip Inspections

Customize a Pre-Trip/Post-Trip inspection screen on the MDT. Set up IDS Incidents in dispatch to capture this data and create a vehicle service request (which can be sent automatically or as an action by the controller managing the incident).

Vehicle Intelligence

Monitor the health of your rail fleet in real time and look at predictive alerts and trends. Enable your maintenance department to proactively address issues before they worsen.

Integrated Voice Communications

Provide flexibility for open voice vs. closed mic system. Manage audio capabilities through the MDT such as voice communications with the dispatch center for private handset calls, fleet announcements over the operator's speaker, and the on-board public address system.

Voice Over Internet Protocol (VoIP)

Establish voice connections between different participants, including dispatch workstations, radio terminals, loudspeaker amplifiers, intercom units, interoperable legacy radio systems, and telephone users with a software-based communications system.

AVL Playback

Access and review all known data during a specific time period for a railcar, line, operator, etc. Review recorded operation data such as schedule adherence, communication data, and passenger count data.

On-Board Integration

Manage use of destination signs, automated vehicle announcements, Automatic Passenger Counters (APCs), vehicle cameras, faring systems, and the MDT with a single on-board computer to streamline operations. Eliminate cumbersome paper processes by utilizing MDT for vehicle inspections.

Emergency Alarms

Enable both overt and covert emergency alarm functions. Covert alarm allows dispatchers to listen in while a rail vehicle is in emergency mode. Overt alarm, for passenger or operator distress that can be communicated openly, displays "canned" messages that the operator can transmit to the dispatch center quickly.

Third-Party Integration

Integrate with asset management and traveler information systems to eliminate duplicate data entry, address asset issues quickly, and send passengers accurate and timely information. Enable a fast, easy, and affordable way to provide riders with real-time information using the GTFS standard. Vontas OnTrack includes a myriad of standard integrations with existing vendors, as well as open APIs, to do more with your solution.

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Turn Your Best Practices into Powerful Decision-Support

Vontas OnTrack Intelligent Decision Support is the first and only next-generation CAD/AVL system to meet FTA Transit Operations Decision-Support System (TODSS) requirements. IDS can be easily configured to fit your needs, enabling you to automate your agency business rules and integrate operating procedures. With a highly customizable flow of information to operators, controllers, administrators, ridership, and even third parties, you stay on top of daily service while delivering reliable transit information. IDS can be configured based on your business rules - triggering incidents based on what matters to you, using your own terminology. This enables you to best implement your action plans and handle service disruptions with consistency.

EXTEND YOUR ITS CAPABILITIES

IDS Value Program – Get operational assessment, customized training, and IDS configuration support.

Yard Management for Rail – Locate exact position of rail equipment in the yard for timely pullout, efficient scheduling, and maintenance.

Device Management – Remotely manage your in-field devices.

ViewPoint with Power BI – Monitor real-time performance dashboards, analyze historical data, create reports, and share information across departments.

Infotainment – Provide real-time on-board content to enhance the passenger journey, using the latest dynamic passenger information (DPI) systems.

Vehicle Intelligence – Proactively identify issues to reduce vehicle breakdowns and integrate with third-party systems for maintenance programs, eliminating manual data re-entry.

Mobile Router Call Data and Passenger Wi-Fi – Enable passenger Wi-Fi and real-time train location via CCTV.

Train Announcements – Create and manage announcements for the entire network.

Automatic Passenger Counter – Review ridership count data to analyze significance of lines and stations.

GTFS-RT. Provide real-time trip updates, service alerts, and vehicle positions to customer-facing applications.

Information Technology for Public Transport (ITxPT). Enable cost-effective, plug-and-play deployment of ITS systems and gain flexibility to experiment with new technologies to further enhance the customer experience.

Reach out to our ITS experts for a demo.

Connect with our Experts

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