

IoT SOLUTIONS FOR RAIL SAFETY

SEE, HEAR & EXPERIENCE OPERATIONS IN REAL TIME



INTELLIGENT SAFETY

The Wi-Tronix IoT platform connects you in real time to locomotive information that produces insights about the safety of your trains, crew and track at a level never before available.

With real-time information, your trains and crew are better protected. When incidents do occur, you have the information needed to take immediate action, promote safety or remedy the situation.



Reduce Overspeed Violations

Monitor and alert crews to speed restrictions for better compliance



Identify Emergencies Immediately

Remote and immediate notification of incidents



Assess Incidents Remotely

Download data and video immediately to send proper crew and equipment



Reduce Cell Phone Distractions

Alerts when crews are using cell phones in the cab



Prevent Derails and Track Issues

Accurately identify locations where track is failing



Recover Data & Video Immediately

If onboard devices are destroyed, audio & video are available

YOUR ASSETS, YOUR DATA, OUR SOLUTIONS

Improve Adherence to Speed Limits

While continuously monitoring train speeds, the Wi-Tronix platform compares speed with railroad speed limits. The tables of speed include restricted zones by milepost. When overspeed is detected, alerts are immediately sent to designated locations. With the cab speaker, crews are given audible indications of overspeed. This situational awareness can reduce at-risk behaviors, and in one case study decreased the behavior by 74%!

Ensure Compliance to Cell Phone Policy

Wi-Tronix detects mobile devices that are powered on and transmitting in the cabs of locomotives. The system alerts you when devices place or answer calls, send or receive text messages, or use data transmission while trains are in motion. This allows you to enforce safety focused operating rules.

Receive Alerts as Soon as Events Occur

Event recorders and cameras gather information on near misses, trespassers, theft, obstructions, and violations. Alerts immediately notify operations and safety management of hard braking, Engineer Initiated Emergency (EIE), rollovers, and hard coupling.

Ensure Proper Incident Response Plans

Data and video recorded in the cloud and available to authorized users better prepares investigators with immediate knowledge of the incident, while reducing inspection time and risk of liability. Knowing the severity and nature of the issue enables providing the equipment and personnel to correctly resolve the situation. Map view gives accurate location by milepost, eliminating wasted hours of travel time finding locomotives.

Detect and Locate Track Issues

Using onboard sensors that detect rough track and geometric issues, the Wi-Tronix IoT user interface identifies the location of track issues, alerts crews to the need for repairs, and prevents derailment.

Protect Video & Data from Any Incident

Real-time video and data are continuously stored in the cloud, and are typically available before onboard devices are accessible. Even if the onboard devices are damaged or destroyed, the data is secure and accessible in the cloud.

Enhancing PTC

Data collected is analyzed with Artificial Intelligence and Deep Learning to provide knowledge and automation that improve safety beyond the reach of currently mandated systems.

Smart monitoring and analytics, real-time video intelligence, and predictive diagnostics ensure the most safe and reliable movement of goods and people throughout the world.

Violet Live

Monitor the cab with live stream 360° views. Virtual Ride Along allows staff to see all activities in real time.

Prepare for coaching sessions by knowing speed, location, braking and locomotive data.

Access the Wi-Tronix secure web-based user interface to display asset data and video fused together for a holistic understanding of operations.

Identify track, stations, yards, and mile posts on a map to quickly locate locomotives.

See What Your Crew Sees



Violet Live puts you on the train with the crew