


A large, white, sans-serif text overlay on a background image of a railway maintenance vehicle's wheel and suspension system. The background image shows a close-up of a large, dark, treaded tire and a complex metal suspension assembly on a railway track. The text 'Railway Telematics' is positioned in the lower-left quadrant of the image.

Railway Telematics

Maintenance Of Way Equipment
Railroads and MoW Contractors



**> Your fleet is talking.
Are you listening?**

TELEMATICS FOR MAINTENANCE OF WAY EQUIPMENT

The Railway industry relies upon maintenance of way equipment to keep railroads moving forward every day. Having the right equipment in the right location at the right time is essential for maintenance of way teams to perform effectively.

If you're not leveraging railway telematics technology in your maintenance of way operations, you could be overlooking a crucial opportunity. ZTR Railway Telematics Solutions make it easier to do more work, more quickly – with less equipment and lower costs. See how you can get unparalleled visibility into equipment utilization, maintenance requirements, and production efficiency.

WHY TELEMATICS?

A successful telematics program help can **lower the costs of MoW operations significantly** by providing complete equipment visibility. Let ZTR show you how.

Maximize Equipment Utilization



Lower costs with improved utilization visibility. With location, run hours, cycle and production counts, you can understand when, where and how equipment is or *isn't* being used. Do more work with less equipment:

- Reallocate or retire existing underutilized equipment
- Lease less equipment
- Make smarter buying decisions based on true needs

Optimize Equipment Maintenance Processes



Minimize downtime, improve availability and lower maintenance costs. By combining utilization information with advanced engine parameters and faults you can:

- Reduce maintenance costs
- Shift towards predictive maintenance
- Improve issue response time

Improve Production Efficiency



Make more informed equipment and work planning decisions. Enable accurate, intelligent and automated reporting of critical production metrics to take advantage of ever tightening track time windows and:

- Build electronic production records
- Set, compare and measure production baselines across network
- Identify bottle necks and under-performing units or equipment types, makes and models

ANALYTICS AND INTEGRATION

Collecting data is important, but turning it into **valuable business insight for you and your customers** is the key to an effective telematics program. The **ZTR ONE i3 platform** is an intuitive, user friendly tool with standard or custom reports and dashboards. Used in conjunction with the **ZTR NearMe app**, you can get insights where and when you need them. Where processes and business systems exist, **increase their effectiveness by integrating with the ONE i3 platform.**



WORK WITH A TRUSTED INDUSTRY EXPERT



From versatile and robust hardware options for **all makes and models** of equipment, to targeted and rich insights, ZTR can deliver the **end-to-end solution** you need. We've been exceeding railway industry expectations for more than 30 years with our innovative technology.



1. Equipment and Device Integration

A telematics device from our broad portfolio of proven hardware can be paired with and installed on any make, model or equipment type.



Off Track and Rubber Tire

- Front end loaders
- Back hoes
- Excavators



On Track and High Rail

- Hi-Rail Excavators
- Tampers
- Ballast Regulators
- Spikers



Accessory Equipment

- Trailers
- Light Towers
- Plows



2. Wireless Communications

ZTR has relationships with major carriers to leverage existing communication systems and ensure we stay ahead of the evolving communication landscape.



Cellular Options



Satellite Options



Future-Focused Communication Standards



3. Gateways and Data Center

ZTR deploys the latest in edge and cloud computing technology to maximize data security, throughput, storage and accessibility.



Third Party Security Evaluations



Scalable, Cloud Based



4. Service Delivery and Network

The ZTR ONE i3 platform includes a variety of features including mapping, geofencing, fleet management, alerts and faults, maintenance planning and analytics.



User Friendly Portal, Quick Response Time, Mobile App



Advanced Analytics



Role Based Security



Integrates with Existing Business Systems



5. Support, Processes and People

ZTR is more than a supplier. We're a partner committed to advancing your digital strategy at every stage -- from collecting data, acquiring insights and realizing long-term benefits.



Equipment Review and Program Scoping



On-site Surveys, Installation Support and Instructions



Customer Support, Fleet Health and Remote Updates

CHOOSE FROM A VARIETY OF STANDARD OR CUSTOM SERVICE PACKAGES

Whether you're looking for detailed production and engine information or simply trying to keep track of equipment, ZTR has a service package **built to suit** each and every piece of equipment.



Standard Service Packages

Tracker	Core+	Optimum	Production
<p>Location Services</p> <ul style="list-style-type: none"> • Mapping • Geofencing • Breadcrumbing <p>Alert/Fault Management and Notification</p> <p>Maintenance Planner</p> <p>Optional Business System Integration</p> <p>Mobile Capable — NearMe App</p>	<p>Location Services</p> <ul style="list-style-type: none"> • Mapping • Geofencing • Breadcrumbing <p>Alert/Fault Management and Notification</p> <p>Maintenance Planner</p> <p>Optional Business System Integration</p> <p>Mobile Capable — NearMe App</p> <p>Run Hours Reporting</p> <p>Battery Voltage Reporting</p> <p>Analytics / Reporting, e.g. -</p> <ul style="list-style-type: none"> • Utilization • Faults • Raw Data 	<p>Location Services</p> <ul style="list-style-type: none"> • Mapping • Geofencing • Breadcrumbing <p>Alert/Fault Management and Notification</p> <p>Maintenance Planner</p> <p>Optional Business System Integration</p> <p>Mobile Capable — NearMe App</p> <p>Run Hours Reporting</p> <p>Battery Voltage Reporting</p> <p>Analytics / Reporting, e.g. -</p> <ul style="list-style-type: none"> • Utilization • Faults • Raw Data, etc. <p>Engine Operating Parameters, e.g. -</p> <ul style="list-style-type: none"> • Engine Speed • Oil Pressure • Coolant Temperature <p>Engine Faults</p>	<p>Location Services</p> <ul style="list-style-type: none"> • Mapping • Geofencing • Breadcrumbing <p>Alert/Fault Management and Notification</p> <p>Maintenance Planner</p> <p>Optional Business System Integration</p> <p>Mobile Capable — NearMe App</p> <p>Run Hours Reporting</p> <p>Battery Voltage Reporting</p> <p>Analytics / Reporting, e.g. -</p> <ul style="list-style-type: none"> • Utilization • Faults • Raw Data, etc. <p>Engine Operating Parameters, e.g. -</p> <ul style="list-style-type: none"> • Engine Speed • Oil Pressure • Coolant Temperature <p>Engine Faults</p> <p>Production Counts and Reporting, e.g. -</p> <ul style="list-style-type: none"> • Cycle Counts • Work Time <p>Custom Equipment Data</p>

*Custom service packages are available.

Get the maximum benefit with **customized, flexible** and **innovative** features in a **Railway Telematics Solution** from ZTR.