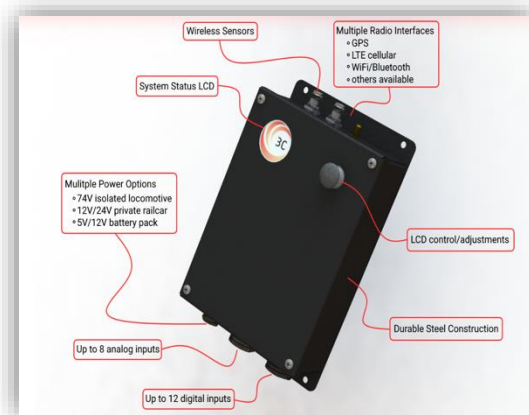Introducing the next generation of locomotive management technology, the Locomotive Monitoring Unit (LMU4). Designed with the modern short line rail operators in mind, the LMU4 brings together cutting-edge hardware and software to deliver a seamless and efficient fleet management experience.

With its advanced GPS technology, the LMU4 provides real-time train tracking and monitoring, ensuring maximum visibility and control for railway operators. The system's intuitive interface allows for easy and efficient viewing of report data from the built-in analog and digital channels, as well as the optional external wireless sensors.

Condition Monitoring

Monitor the critical systems of your locomotives, to keep them in good condition and reduce maintenance costs. Our solutions help you pinpoint the main problem areas that affect efficiency, productivity and maintenance. Sensors available based on your needs:

- 4G LTE, GPS (standard in every unit)
- Fuel Probe
- Temperature
- Air Pressure
- Oil Level
- Battery Voltage / Engine Run (standard)
- Impact
- Throttle Position
- Traction Motor Current
- More

Fuel Monitoring

Fuel costs can be a significant element in your challenge to maintain operating margins and increase revenue. With 3C Telemetry, we can help you minimize fuel consumption, verify fuel purchase levels, monitor for fuel theft events and maximize efficiency.

Crew Productivity

Crew productivity is a critical component in maintaining operating margins and increasing revenue. The 3C Telemetry crew productivity application gives you insight into all the movements of your crew and how they are using your locomotives when in the field.

Timely

It is your business, and you can choose how frequently you would like to receive data or movement. Adjust how frequently you would like the device to "check-in" from a matter of seconds to hours.

Web Reporting System

Turn sensor monitoring data into actionable information with the powerful reporting functionality in our Web Reporting System. There is no software to install; all you need for 24/7 access to your password- protected account is an Internet connection. Access to YOUR data, reports, photos, maps and dashboard displays.

We make it easy to view standard reports or create customized reports using our online system or export your sensor monitoring data.
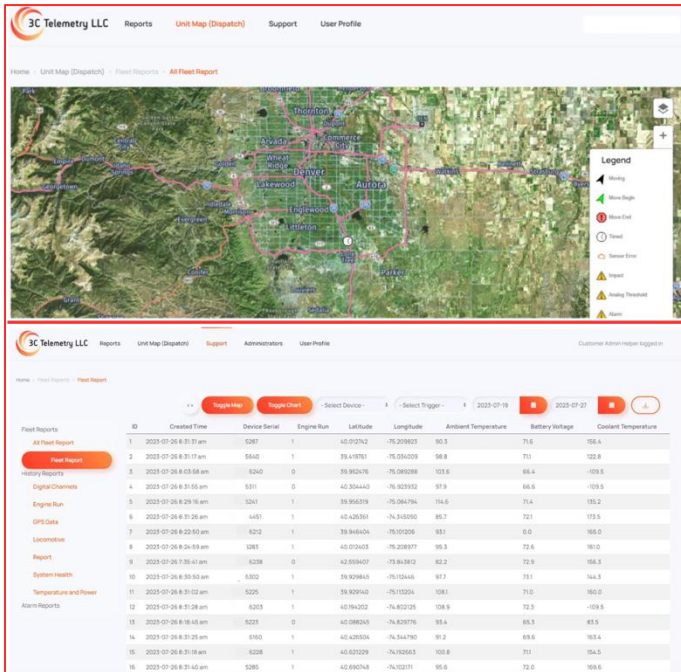
- **Standard Reports -** Analyze common business issues using a variety of standard reports including dwell, pooling, crew productivity, impact & more.
- **Custom Reports -** Use our Report Builder to create an unlimited number of reports to meet your specific business requirements. Features include filters to see as much or as little data as you need.
- **Export Data -** If you prefer, use our JSON API data exchange tools to import 3C Telemetry monitoring data into your existing fleet management software. Or export data for use in many programs including Microsoft® Excel® or Tableau®

Interactive Maps

Monitor your locomotives easily using our interactive maps.

- Locate locomotives immediately on our base map.
- Use Satellite View to display aerial view to provide valuable perspective.
- Built in map measuring tools.

Satellite map view of locomotive movements

- Choose the details you want displayed on-screen, including the time of message, event, status (moving, stopped, and direction), and speed for each asset, as well as sensor measurements.

Administrative Tools

Manage your units using our comprehensive Web-based Administrative Tools, available 24/7 from your desktop, tablet or mobile. Use these tools to:

- Create and update alerts with the parameters you set for your equipment and the sensors.
- Establish other report users in your team, and define their access and resources.
- Update configurations like report and measurement intervals. Device firmware can be updated over-the-air by 3C Telemetry. Results in no down-time removing units.

Notifications & Alarms Real-Time

Get real-time information when you use 3C Telemetry systems to monitor your locomotives.

- You configure the thresholds that trigger a notification. When sensors detect conditions outside those parameters, the system automatically sends an alarm message.
- Choose an email address or any mobile device for notifications. Every message includes detailed information, so you are fully informed.

Extensive Geo-Fence Capabilities

Define, update and monitor these "Virtual Fences" you draw at your computer.

- Get a message when your locomotive enters and/or exits a geo-fence location.
- Use geo-fence locations for alarm triggers or reports.
- Get an immediate message when a locomotive crosses a fence boundary.

The 3C Telemetry Difference

3C Telemetry GPS monitoring technology helps you run an efficient and profitable business by providing accurate, real-time information on the condition, location and performance of your locomotives in the field.

Technological Benefits

3C Telemetry has technological advantages that set us apart.

- **Industry Specific** - The powerful 3C Telemetry Locomotive Monitoring Unit is designed ground up for the rail industry and locomotives.
- **Reliable Communication Choices** - We customize the wireless technology used to communicate your data to match your business needs. Use cellular for economic and reliable terrestrial coverage, satellite for remote or coverage and low-power RF systems for local wireless networks.
- **Actionable Information** - All you need to turn monitoring data into actionable information is an Internet-connected computer or mobile device. Use the powerful 3C Telemetry Web Reporting System, our responsive mobile website, or export the data for use with your existing fleet management software.

Return on Your Investment

3C Telemetry is a leading provider of industrial wireless technology with existing customers that include the largest North American railroads, and major manufacturers and shippers. We've used millions of miles of tested performance to evolve our technologies to be reliable, efficient and economical, ensuring a healthy return on your investment.

- **Rugged Equipment That Lasts -** 3C Telemetry equipment is weatherproof, shock resistant, electrically isolated and exceeds industry specifications. To help you avoid downtime, we design and build our monitoring hardware to withstand the harshest environments and operate under the most demanding conditions.
- **Easy, Low-Cost Installation** - All 3C Telemetry monitoring hardware is self-contained and designed for easy installation, often requiring less than one hour. This can save thousands of dollars during the fleet installation process.
- **Third-Party Credibility** - As a leading provider of GPS monitoring data, we provide credible, accurate information to give you real-time answers to possible conflicts.

Lifetime Support

We are here to support you from installation through the lifetime of your 3C Telemetry products.

Learn More Today

Learn more about how 3C Telemetry can make a difference for your business. Call 720-475-1018 today, and talk to one of our friendly, knowledgeable experts.