

*: BlackBerry radar

ASSET MONITORING: ENGINEERED FOR INTELLIGENCE

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Instinct versus Analytics

For decades, some of the biggest and most complex industries were managed by the intuition and experience of decision makers. In recent years, tools for collecting and analyzing data have dramatically shifted the way major industries do business.

For example, fleet managers use data collection and analytics to improve efficiency of their operations. However, often there are still significant gaps in data that exist for those managing trailers and containers often carrying valuable assets. Current trailers tracking devices only send a few updates per day. The infrequency of the location based information does not provide enough detail to be useful. Near real time information is needed to truly realize the following advantages:

- Maximize equipment and capacity utilization to increase return on investment
- **Perform preventative maintenance** to reduce operating costs and downtime
- Effectively achieve regulatory compliance for food quality and transportation safety
- Maintain cargo integrity to reduce insurance and customer claims
- Ensure driver productivity including the reduction of wait times
- Prevent theft and increase recovery for alerting key stakeholders and law enforcement



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Advanced Trailer Monitoring: Valuable Data for Better Return on Investment (ROI)

BlackBerry is delivering a new solution to improve the efficiency in trailer fleet management and cargo logistics. BlackBerry Radar is designed for quick installation with an easy to use user interface and provides near real time tracking of the fleet with valuable sensor data all protected by BlackBerry's legendary end-to-end security.

The solution is an all-encompassing service that includes the device, cellular connectivity and

web-based applications for use anywhere and anytime. The BlackBerry Radar solution collects up to 100x more data than conventional GPS based track and trace solutions. This rich data feeds in-depth analytics, applications and instant alerts, based on alarms being triggered, that provide fleet managers with the tools necessary to manage trailer operations more effectively.

Innovative Device	
Ten Minute Install	The self-powered device installs with two screws and requires no wiring, meaning less fleet down time.
Multiple Integrated Sensors	Total trailer visibility, including built-in location, door state, cargo load state, motion, miles driven, temperature, humidity and pressure sensing.
Multi-Year Battery	Minimal maintenance (no charging, no wiring, weatherproof and shockproof). Install and deploy trailers worry-free for years.
Future-Proof	The device automatically receives software updates and feature improvements.
More Data	
Five Minute Sensor Readings	With multi-sensor measurements taken every five minutes Radar collects over 100x more data than basic GPS trackers.
Updates Every Fifteen Minutes	Delivers near real time data by uploading sensor readings every fifteen minutes to support critical operations decisions 24/7/365.
Cloud Based Intelligence	Further transforms sensor data into vital and valuable operational data, such as mileage and cold chain compliance.
Instant Alerts & Alarms	Manage day-to-day operations more effectively with event-driven notifications of critical trailer conditions and actions.
Intuitive Map Views	Provides fleet managers with a visual representation of operations so they can react quickly and intelligently.
Integrated Data Analytics	Perform time-based analysis and visualize trends across trailers, fleets, routes and yards. Optimize your business and your customers' businesses.
Simple Operation	
Fully Hosted Secure Cloud Solution	No computer expertise required. No IT installation. Automatically receive updates, improvements and new features.
Web-Based Console	Access the system anywhere in the world using a web browser.
99.9% Uptime	Ready for business-critical use with support and product maintenance included.
Cellular Data Plan and Maps Included	No extra fees or contracts. No surprises.

2

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Manage Your Fleet with Facts

To meet the goals of trailer fleet operators, BlackBerry focused the design of the Radar solution on the delivery of meaningful near real-time data.

Fleet operators will now have all the facts they

need to replace assumptions and second hand information with accurate and traceable data. BlackBerry Radar includes simple, powerful, interactive reports designed specifically for trailer fleets. These reports are instantly accessible from a web browser anywhere in the world 24/7/365.

Increase Profits with Better Decisions

Ultimately, the measure of a good trailer monitoring solution is return on investment. By focusing on the unique challenges of fleet operators and the cargo they transport, the BlackBerry Radar solution can deliver the following value.

Improved Fleet Utilization

- Reduce trailer pool by 7.12%
- Identify under-used or idle trailers.
- Set and measure operational performance.
- Optimize yard operations in real-time and analyse trends.
- Interactive utilization reports help guide the business.



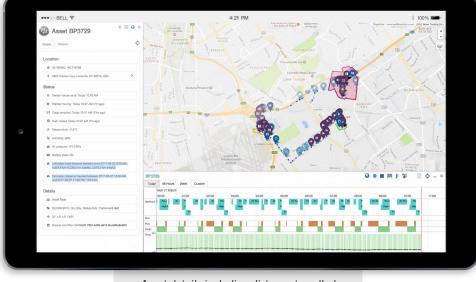
Free utilization report

ADVANCED TRAILER MONITORING | Manage Your Fleet With Facts

Optimize Maintenance

- Accurately track miles driven.
- Perform maintenance when needed.
- Locate trailers for maintenance.

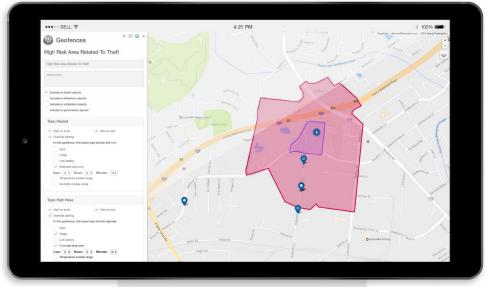
- Effectively manage trailer rotation.
- Select appropriate trailers for tasks based on maintenance condition.



Asset details including distance travelled

Responsive and Proactive Operations

- Create alarms and alerts based on thresholds and geo-fences.
- Detect anomalies and choke point in logistics flow.
- Reduce theft and/or insurance costs.
- Avoid spoilage and quality degradation of perishable cargo.

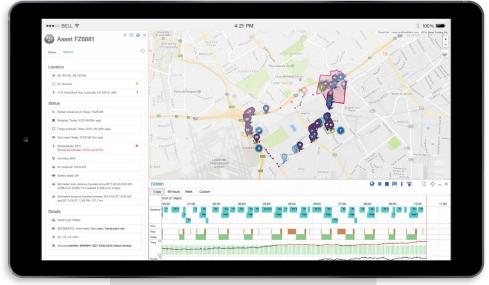


Example of geofence for a high risk area

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Simplified Regulatory and Customer Compliance

- Complete records of temperature, pressure, humidity, location, and miles driven.
- Provide customers with detailed summaries based on comprehensive real-time trailer information.
- Accurate temperature monitoring for compliance with perishable product regulations such as US FSMA.
- Support compliance with emerging GPS tracking regulations for dangerous goods, such as firearms, hazardous waste, and chemicals, such as the Canadian Explosive Regulations 2013.
- Accurate motion detection and mileage to support government initiatives such as vehicles' miles traveled taxes, road user charges, hours of service, and environmental regulations (carbon, emissions).
- Reduce increasing reporting costs with easy to use data export tools and a centralized database for all trailer condition and location information.

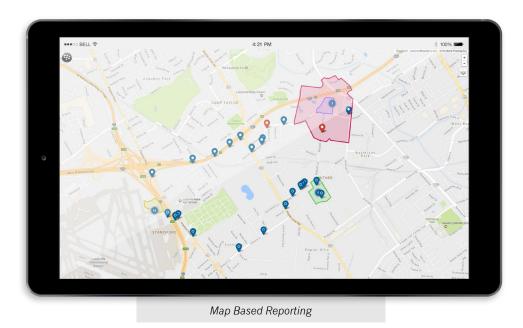


Interactive event timeline including temperature

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Improved Driver Productivity

- Map-based user interface with alerts/alarms.
- Automated yard check to reduce overhead and input errors.
- Optimize dispatch and wait times with real-time location and load information.



Smarter Trailers Today

Trailer fleets' managers can use BlackBerry Radar to surpass their competition by replacing subjective judgements with objective data-driven decisions. The Radar solution enables existing trailers to become smarter and is the first step in our vision for smart trailers and part of our continued investment in connected and autonomous transportation systems.



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BlackBerry IoT provides innovative end-to-end solutions for connected transportation and embedded systems that are designed to help our customers improve efficiency and differentiate their products.

Contact Us Today for More Information: 877.244.4516 telematics@panapacific.com www.panapacific.com

