



Real-Time Location Solution powered by Evigia



Rio Total Visibility: Data. Analytics. Automation. Optimization.

High-precision Real-time Location Tracking



Rio's Total Visibility™ precision Ultra-Wideband (UWB) Real-Time Location System (RTLS) enables precise real-time location visibility, even in large areas and complex environments. The system combines compact tracking tags, networked anchor points, real-time tracking software, and an extensible cloud-based software integration API.

Markets and Applications

- Manufacturing
- End-to-End Supply Chain Visibility
- Warehouse and Inventory Management
- Asset and Workflow Tracking
- Yard Management and Transportation
- Healthcare Operations
- People Tracking, Social Distancing

Rio Total Visibility™ Solutions

- 📌 **Real-time visibility.** Accurate insights into the business operations and processes. Dependable real-time actionable information derived from location sensor data analytics.
- 📌 **Automate.** Automated execution of business rules and processes. Automated management of workflow, inventory, regulatory and work-force safety requirements. Integrate seamlessly with existing enterprise systems.
- 📌 **Optimize.** Boost operation efficiencies. Continued process improvements and operations intelligence through real-time visibility, actionable data, automated business rules, alerts, and sensor data analytics.
- 📌 **Enhance asset utilization.** Cut waste and redundancy. Focus resources through widely deployed visibility and real-time location and sensor analytics across your enterprise.
- 📌 **Save costs and boost revenue.** Enhanced productivity, resource planning and utilization through business process automation, optimization, and continued improvement. Increase customer and workforce satisfaction through focused highly efficient operations.
- 📌 **Accurate sensor data over wide area.** Get dependable real-time location and sensor intelligence in real-world operations environment. Better than 1 ft accuracy over large area manufacturing facilities, warehouses, yards, and buildings. Track all items from fast moving forklifts and vehicles to stationary assets and people.



Rio Total Visibility™ RTLS is designed, engineered, and supported by Evigia Systems LLC. Evigia is a proven provider of Internet of Things (IoT) solutions leveraging advanced wireless sensing, data analytics, and system integration technologies and expertise.

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Rio Total Visibility RTLS System Overview

Overview: Rio™ EVR1000 RTLS system provides accurate location sensor data and analytics, real-time full visibility, location-based automation, and enhanced business processes.

How does it work: Rio hardware consist of small trackers and compact base-stations operating on low-power ultra-wideband (UWB) that employ radio triangulation to accurately and rapidly compute the real-time location of 100's-1000's of trackers in rugged indoor and outdoor environments. The system provides wide-area coverage with 3-4 low-power compact base-stations per over 40,000 square-feet. The Rio system includes a backhaul wireless mesh data network and connects to the Cloud Network through at least a single point via WiFi or cellular link.

The Rio software system includes cloud and optional local sensor databases, customizable advanced business rules and action triggers, data analytics, reporting, dashboard with integrated mapping and data visualization. The feature-rich and easy-to-integrate software API provides seamless integration with automation and/or other enterprise software, accessible without all the Rio software modules.

Rio system is self-configured, easy to install and setup, and has enterprise-level integrated system management tools.

Technology Advantage: Indoor and Outdoor tracking, Location accuracy better than 1 ft, Rugged low-power UWB radio with no interference with other radios, Multi-year battery life in small size.

Hardware: UWB based on the IEEE 802.15.4a standard (3.5-6.5 GHz). Location beacon= 10's milli-seconds-minutes; Motion and temperature sensors. 3-5 years battery life in 3"x1"x1" size. Water-proof, -40°C to 80°C operation, 300 ft wireless range, solar and 5V base-station power options.

Software: AWS, Azure Cloud or locally served; Support MQTT protocol.

System Integration: Full integration, standard APIs and 3rd party integration support, Customizable APIs, Rules and Triggers Engine.

EVR1000 Technology Benefits

	EVR1000 UWB	Bluetooth BLE	RFID	GPS
Location accuracy & repeatability (1-2 ft)	✓	✗	✗	✗
Performance in high-obstruction environment	✓	✗	✗	—
Long battery life (months-years)	✓	✓	N/A	✗
Cost Effective (\$10's or less)	✓	✓	✓	—
Operate Indoor	✓	✓	✓	✗



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<https://rio.evigia.io>



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