



Industrial IoT & Industry 4.0 (IIoT) Solutions

Enabling Operational Efficiencies in Industry

Monitoring & Management of Infrastructure, Assets, and Facilities



Critical to the success of IIoT is the speed with which data can be analyzed and business decisions taken. Some cases allow only split seconds.

The increasing volume of data and real-time requirements create the need for an evolution in how this information is processed.

Processing must happen at the right place at the right time, and thus a need for real-time analytics to be hosted close to the location where the data is generated.

Zotera's Edge Computing Platforms Bring Intelligence to the Edge



Zotera Radius Gateway™

Edge Computing Platform

Enclosure



Front Panel

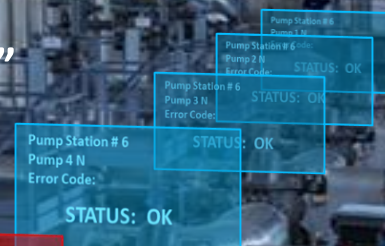


Rear Panel



Complete Visibility Into Industrial Operations

Analytics at the “Edge”



- A secure Platform that converges IT and OT into one single system, in a single place: the “Edge”
- Brings intelligence to the edge of the network (including remote sites) allowing analytics to be hosted at the location of data generation
- Advanced machine learning, predictive models, and analytics provide operational intelligence and inform control systems and machines
- Integrates advanced Smart Sensors, and legacy SCADA systems for actionable insights
- Data thinning analytics strip away all but precisely what is required for decisions and transmits Alerts & Alarms in Real-time to the cloud
- Aggregates remaining data to be pushed to the cloud for deeper, non-time critical analysis



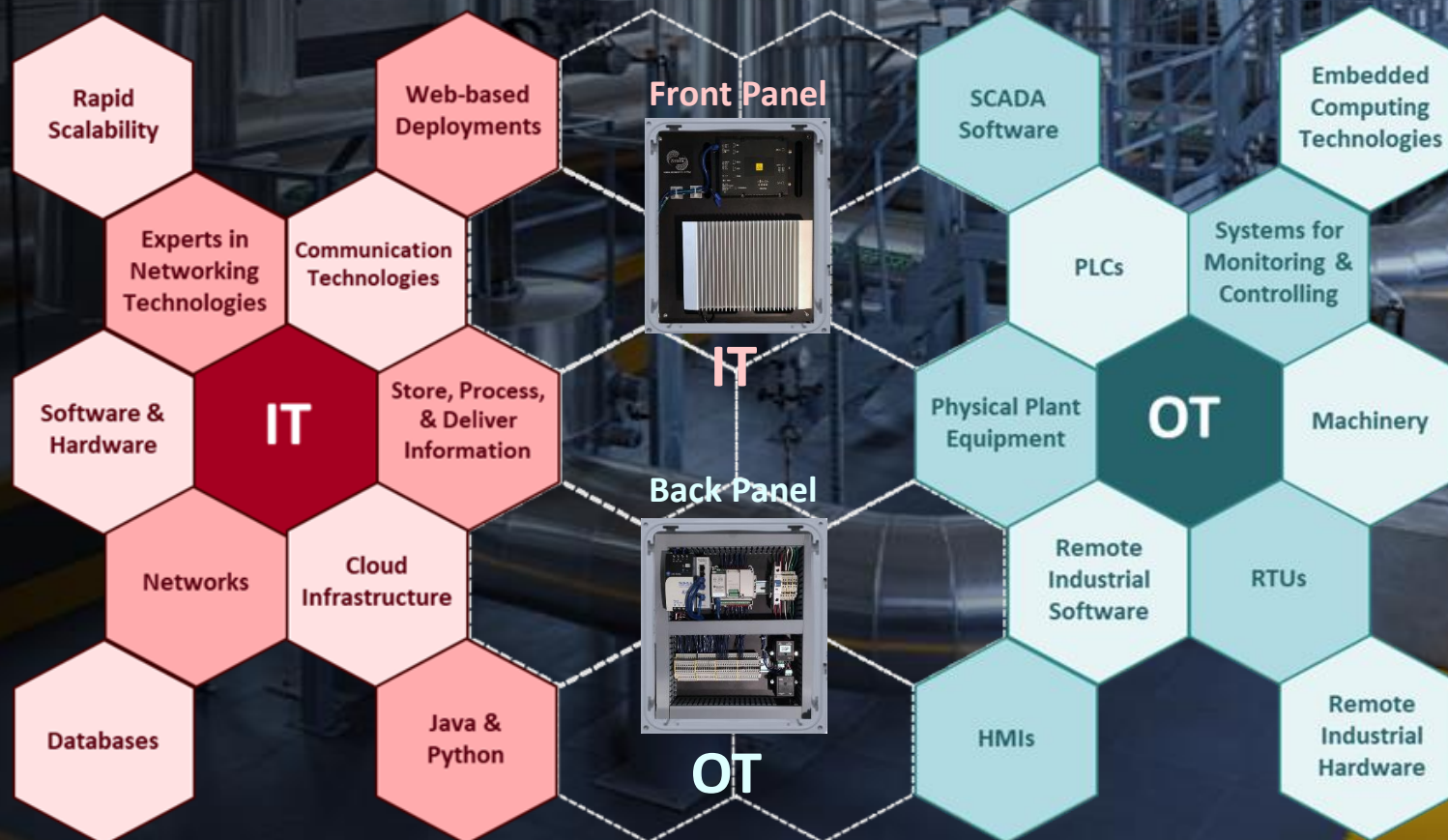


For decades in Industrial Environments Information Technology (IT), and Operations Technology (OT) have run as isolated and independent networks.

The Zotera Radius Gateway

Enables the Convergence of IT and OT into One Single system, in a Single Place: the “Edge”

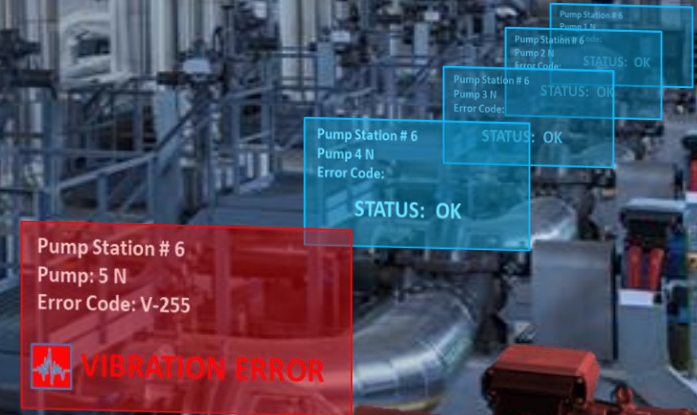
- High-performance Processors
- Advanced Communications
- Scalable Storage
- Systems Management



- Control Systems
- Data Acquisition Systems
- Industrial Networks
- Sensor Network Integration



Zotera Radius Node™



A small form factor that extends the Wireless Sensor Network

- Intelligence to sense, measure, interpret, and connect to the Zotera Radius Gateway
 - Wi-Fi, Ethernet, and LoRaWAN
- Data received by the Radius Gateway is aggregated, analyzed, and alerts pushed to the cloud.
- A powerful, feature rich and versatile HMI including runtime environment.
- Supports visualization of real time monitoring, historical data, and alarm dashboards.



Zotera Insight™

A Command & Control Platform for Connected Facilities, Assets, and Vertical Industry Operations

Edge Platform

- Edge Computing, Data Acquisition, and HMI
- IIoT Smart Sensor Data
- SCADA Data Integration



Cloud Platform

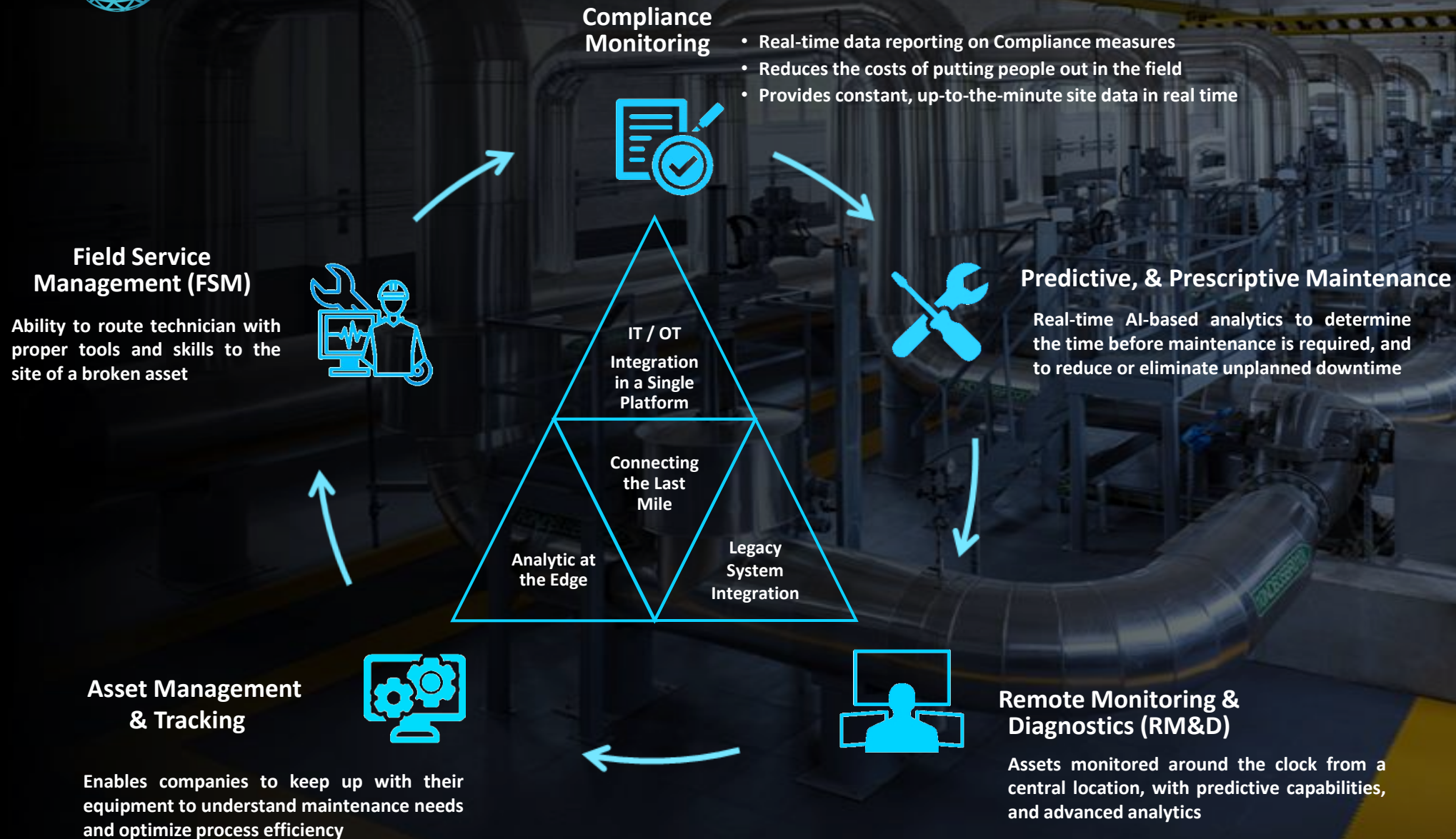
- Real-time Monitoring Alerts & Alarms
- Predictive, & Prescriptive Analytics
- Easily deployed on any cloud



- Designed for the unique and demanding requirements of industrial applications.
- Secure IIoT infrastructure connects, assets, sensors, systems, and subsystems into single operational platforms.
- Advanced Command, Control, Analysis, Management, and Response capabilities.
- Machine learning, and predictive models to provide actionable insights and operational intelligence.
- Predictive, and prescriptive analytics.



Benefits of the Zotera Solutions





A Catalyst to Accelerate Adoption & Growth of IIoT in Many Vertical Industries

Zotera's solutions are capable of transforming dozens of industries through automation, real-time analysis of data, alert systems, and predictive monitoring of infrastructure, assets, and facilities. With the ability to integrate legacy systems such as SCADA, we have addressed a significant challenge to the adoption of IIoT.

Examples:

Energy

- Smart Grid Monitoring
- Power Plant & Sub-station Monitoring
- Smart Meters
- Intelligent Energy Storage
- Power Line Monitoring
- Tower Monitoring

Building Automation

- Energy Optimization
- Asset Management
- Facility Management
- Video Surveillance Access Control
- Intrusion Detection
- Advanced HVAC
- Lighting

Oil & Gas

- Refinery, Pipeline, & Drill Site Monitoring
 - Pressure, Humidity, Temperature, Flow rates, etc..
- Pump Station Monitoring
- Well Monitoring
- Head Monitoring
- Fueling Station Monitoring
- Tank Farm Monitoring
- Field Crew Monitoring

Telecommunications (Tower Management)

- Environmental Monitoring
- Power Monitoring
- Fuel Monitoring
- Security Monitoring

Agriculture

- Soil and crop behavior
- Weather conditions and forecast
- Animal conduct
- Farm machine status
- Storage tank, and outbuilding status

Smart City

- Street Lighting
- Mobility
 - Public Transit Monitoring
 - Traffic/Congestion management
- Public Safety
- Environment & Water
- Digital Signage

Retail

- RFID Inventory Tracking
- Point of Sales & Automated Checkout
- Bar Code Scanning & Smart Shelves

Water Management

- Pump Station Monitoring
- Water Flow / Movement (conveyance, pumping etc..)
- Water Quality
- Remote Site Security

Smart Factory

- Production Line Monitoring
- Equipment Monitoring
- Environmental Monitoring

Public Safety & Security

- Airports, Seaports, Municipalities, Roads, Railways, Borders
 - Surveillance
 - Biometrics
 - Chemical Detection
 - Noise Management

Transportation

- Rail: Track-to-Train & Train-to-Track Communications
- Rail Yard Monitor
- Passenger Information
- Smart Public Transportation
- Cold Chain Monitoring
- Fleet Optimization
- Tolling Solutions
- Real-time Adaptive Traffic Management
- Fleet Management
- Safety & Security

Why Zotera?



[For More Info](#)