



Products Highlights Overview



CHALLENGES OF NETWORK MANAGEMENT WITHOUT A MANAGEMENT SYSTEM

- Limited information for fault isolation & resolution
- No visibility to end devices/sensors
- Reactive (vs. proactive) monitoring & maintenance
- Updating device firmware & change passwords require site visits
- Problem is only known when at site
- Dispatching correct personnel with skillset to resolve issue
- Missing necessary device information even with multiple polling applications

IDEAL SOLUTION

- Comprehensive Solution with **low administration**
- **Purpose built** for managing critical industrial networks
- Enabling **intelligent operations**
- **Rapid deployment** and quick time to value
- Robust & **mature product** for monitoring of comms devices
- **Proactive management** with remote rule based alerting
- **Operational visibility** into critical performance metrics
- Alerts on broken thresholds



INDUSTRIAL MANAGEMENT SOLUTION (IMS)



- ✓ **Intelligent Operations**
- ✓ **Operational Visibility by Device**
- ✓ **Operational Visibility - Topology View**
- ✓ **Proactive Management**
- ✓ **Large Scale Provisioning**
- ✓ **Low Administration**

WHAT IMS DOES

- Provides network monitoring, change, and reporting for a “source of truth”
- Offers visibility into overall network and equipment health
- Improves resource deployment decisions during outages
- Integrates with existing communication and security processes
- Improves availability and performance by anticipating potential problems and auditing device configurations
- Nimble software development support for needed enhancements or changes

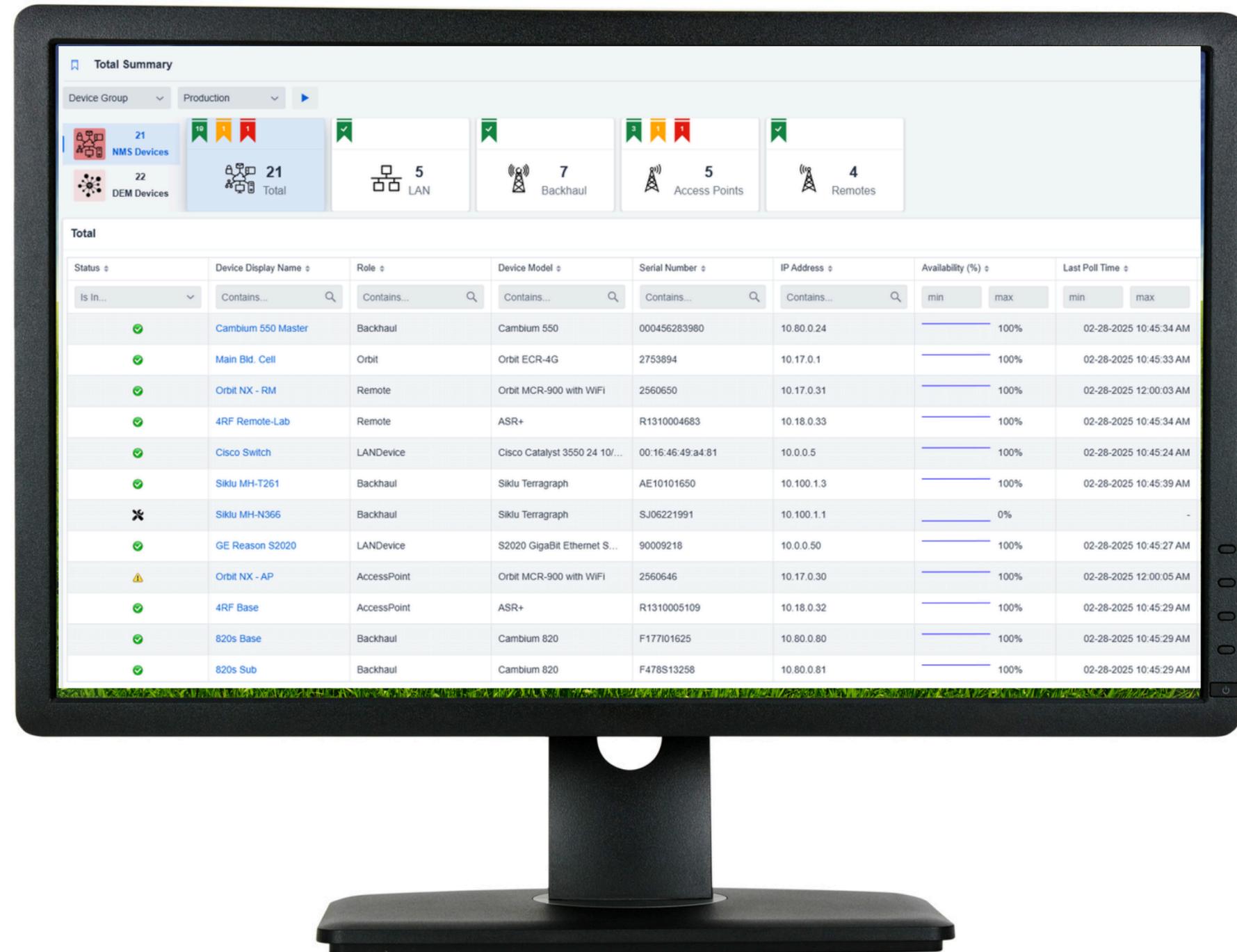


END TO END MANAGEMENT OF THE DEVICE LIFECYCLE MATTERS

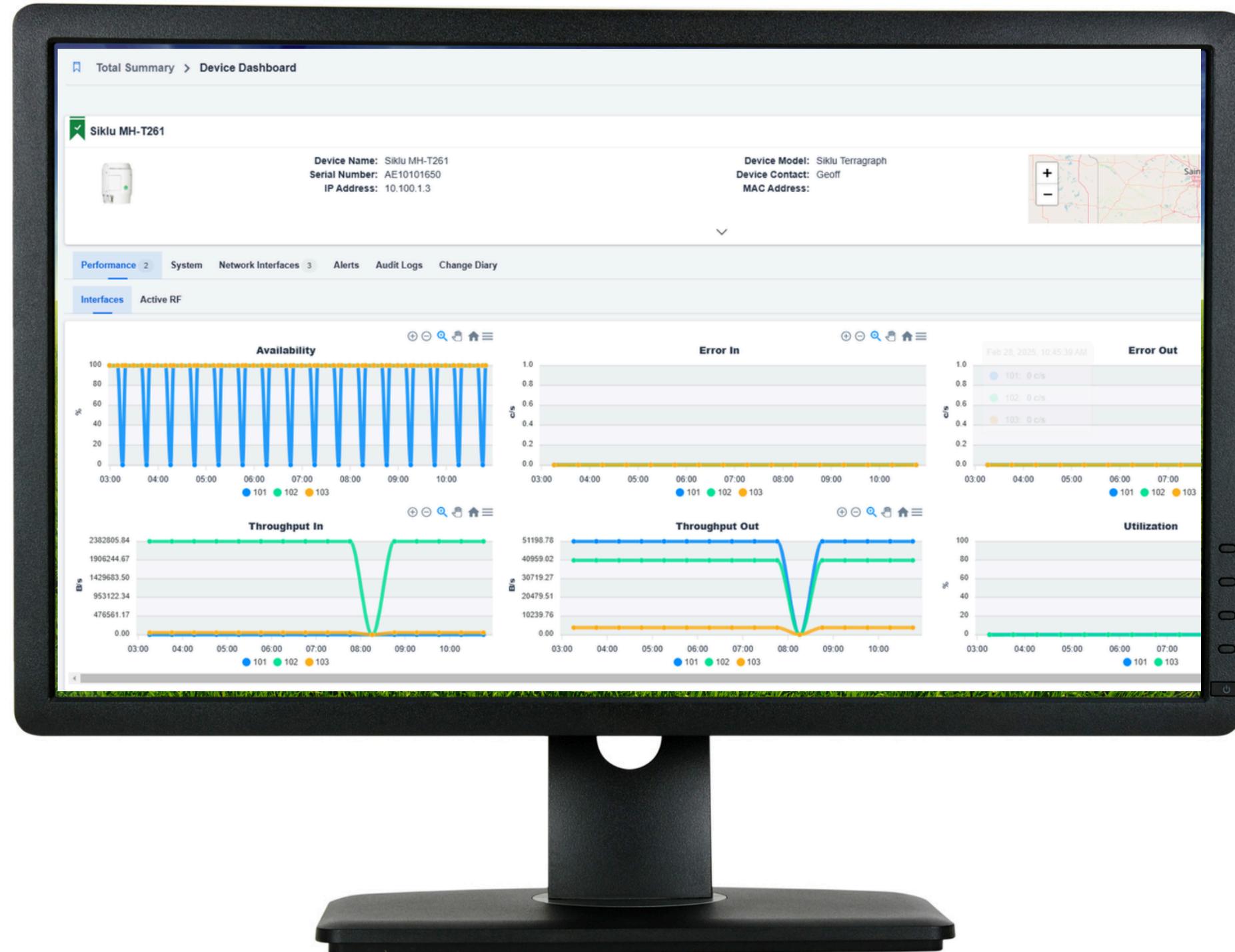
- Health monitoring and proactive notifications
- Historical trend analysis
- Automated device configuration updates
- Customized views and alerts based on user role/group
- Correlation engine automatically identifies the root cause and suppresses downstream impacts (1 alert vs many)
- Device level grouping aligns technology operators needs
- Prescriptive & customizable workflows



INTELLIGENT OPERATIONS: SUMMARY VIEW



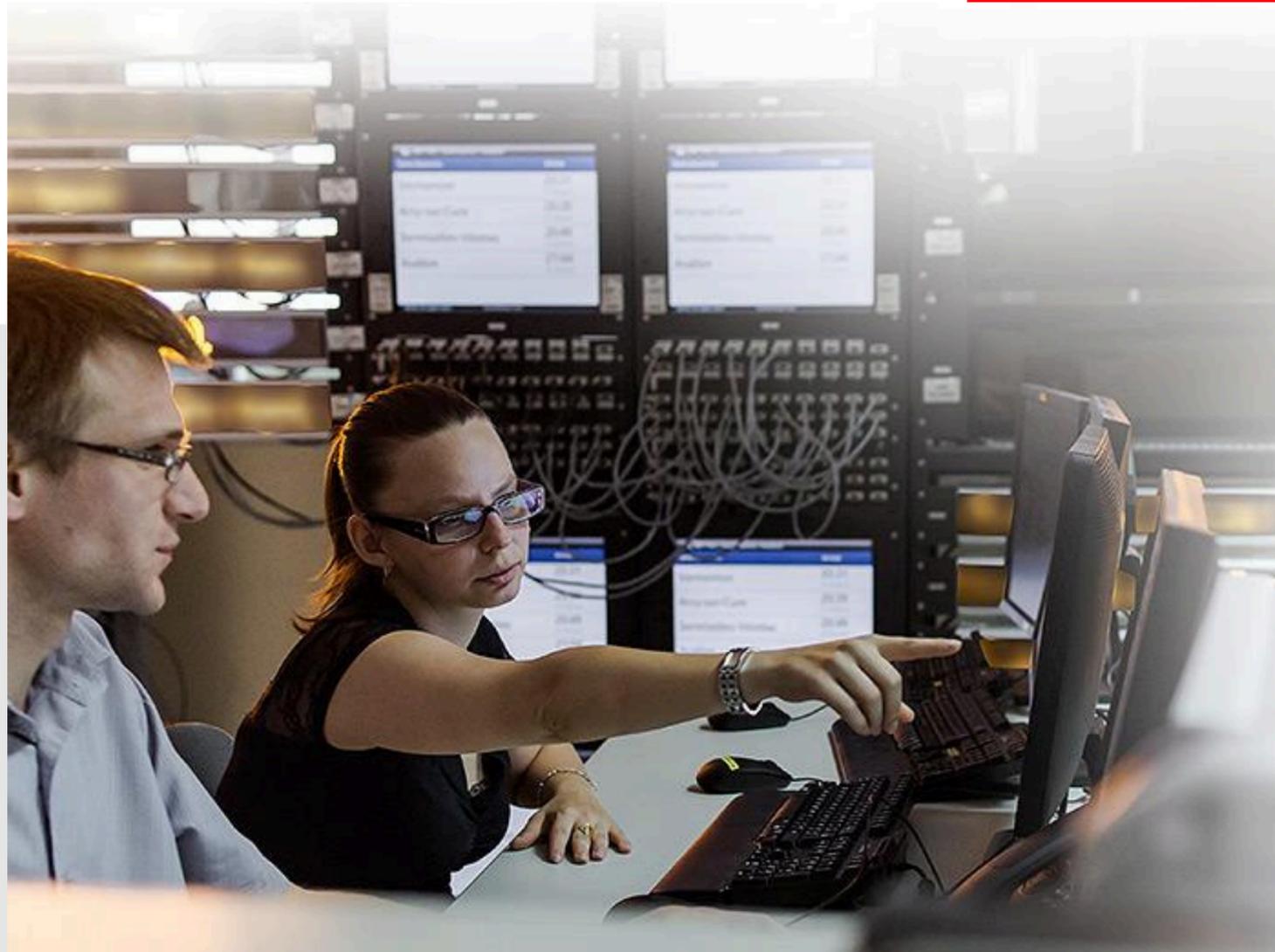
OPERATIONAL VISIBILITY: DEVICE VIEW



THE IMS NETWORK MANAGEMENT SOLUTION MAXIMIZES THE RETURN ON YOUR DEVICE AND NETWORK INVESTMENT

- Quickly and accurately notify and deploy maintenance resources with intelligent data to resolve equipment and network failures
- Historical performance trending data to resolve network & equipment failure quickly
- Purpose built and pre-loaded with recommended radio performance thresholds
- Oversee the “big picture” of the network with real-time data





E2E offers a comprehensive portfolio of professional services that help proactively manage the network with IMS NMS, achieving an unprecedented level of operational performance and efficiency.

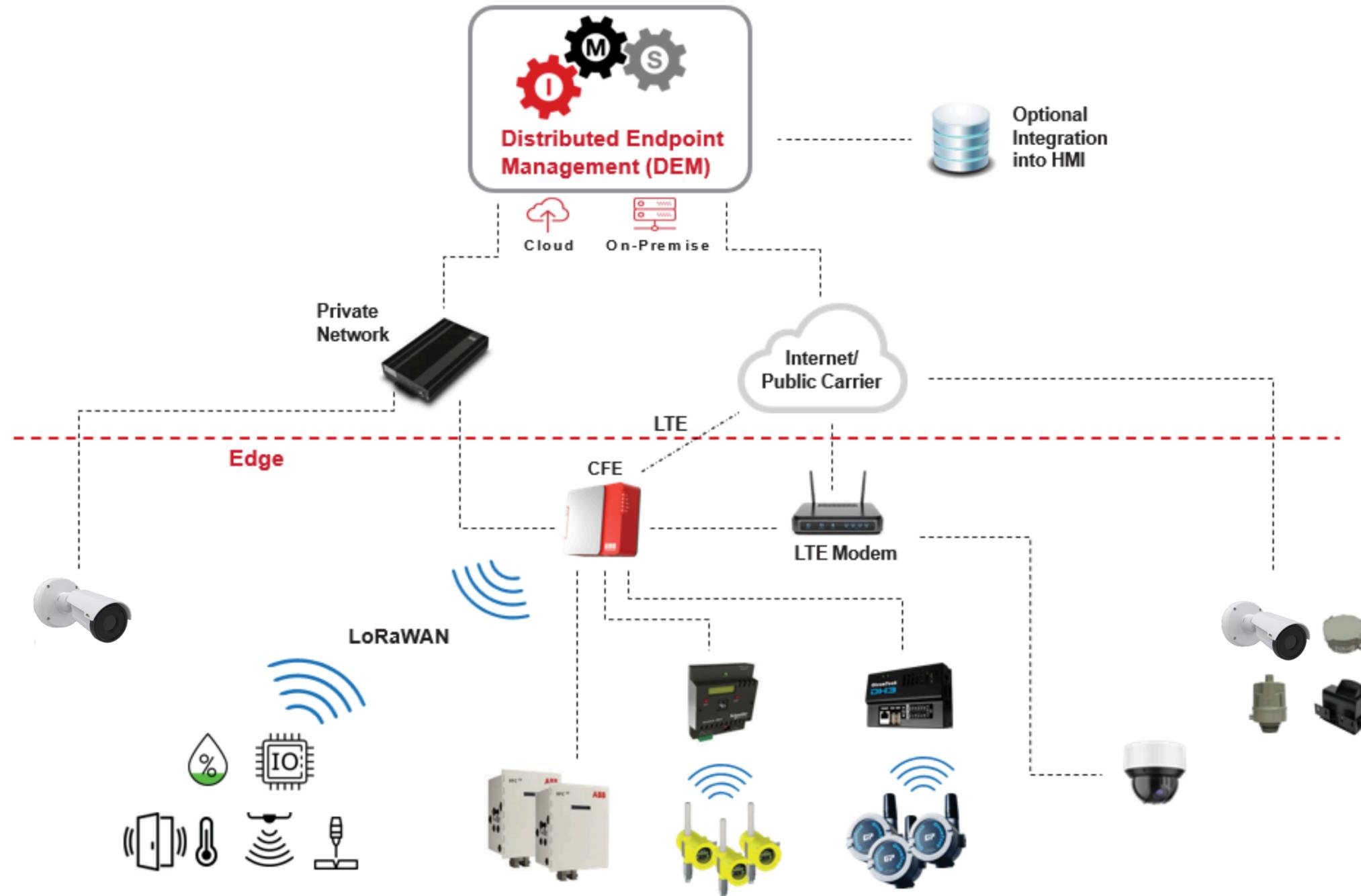
Consulting
Planning and Design
Training
Deployment
Integration
Service Level Agreements

We also provides hosting services for a Network Operations Center (NOC)

24x7 Monitoring
Automated Ticketing and Dispatch
Long-Term Support

IMS NETWORK MANAGEMENT SOLUTION PROFESSIONAL SERVICES

E2E'S EDGE PLATFORM



Note: Integrations not inclusive of offering

EDGE SOLUTION DETAILS

Oversee the “big picture” of the network environment with data from real-time availability & long-term performance.

 Integrates other vendors sensors/PLC's with E2E's offerings

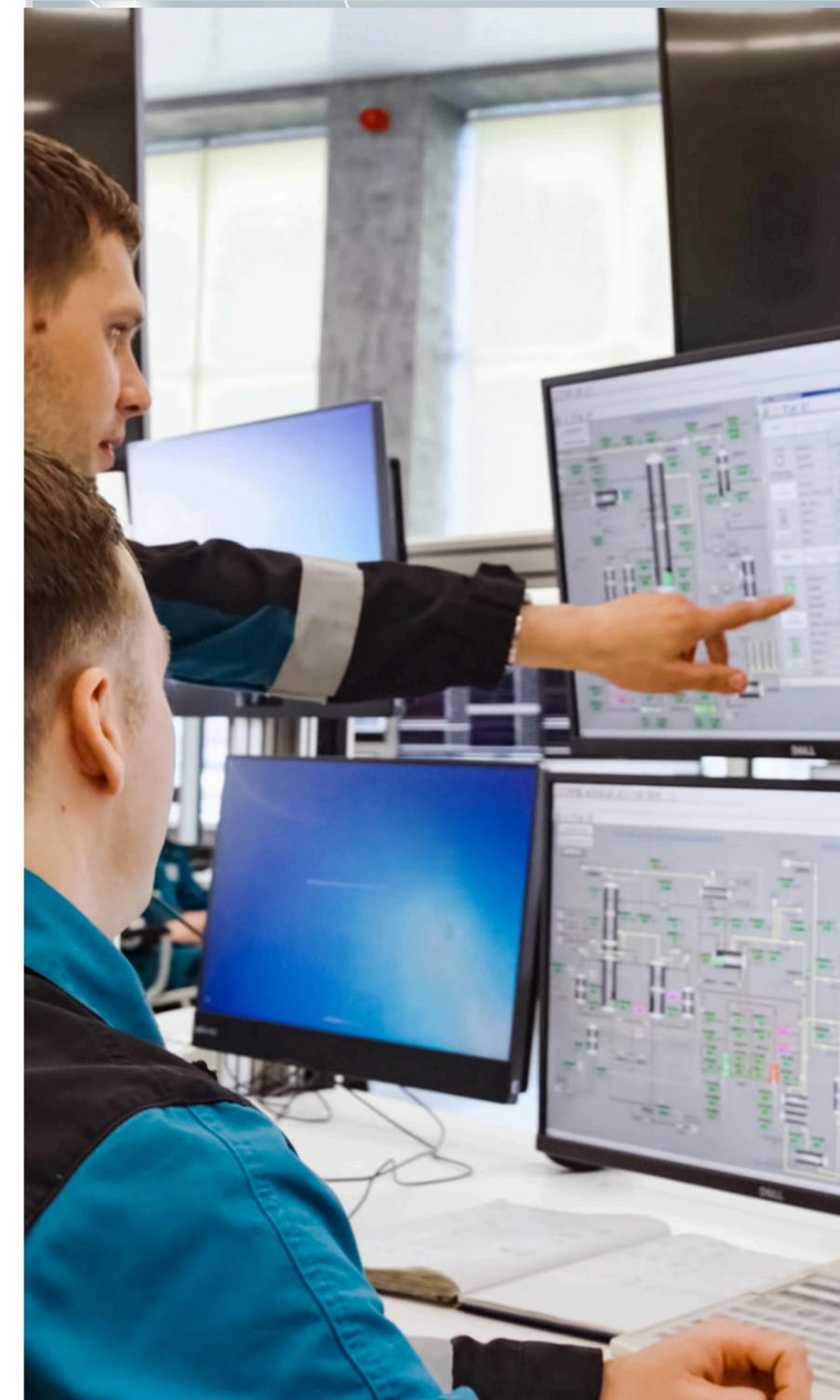
 Seamlessly integrates into E2E's IMS Network Management Solution

 Complementary database for integration with other North bound products like HMI's (E.g. Cygnet)

 Easily creates an Operational Technology (OT) dashboard perspective

 Low administration with quick ROI

 Enables proactive management and reporting... all remotely!



NETWORK & EDGE MANAGEMENT PLATFORM & SERVICES



Customized

Wirelessly change configuration settings on serial-only and IP remote radios in the field. Collects device configuration & performance information from the field



Software Tools

The only deployment and configuration automation tool on the market that supports GE MDS™ Orbit, SD, TransNET and 4RF™ Aprisa™ devices.



Out of the Box

IMS network management software requires no customization to get started, providing true out-of-the box functionality.



Advanced Integration

For narrowband and proprietary network devices (GE MDS™, FreeWave, 4RF™ Aprisa™, Sierra Wireless, Cambium, RADWIN, Ubiquiti, and more)

E2E EDGE PRODUCTS

The Collector and The Extricator:
Both products forward the data
exclusive to the IMS DEM solution.



The Collector

Collects operational information from LoRa/LoRaWAN sensors, supporting E2E sensors in addition to select 3rd party sensors. There is a sub-category of the Collector that has a Forwarder - which is like a listener of LoRaWAN packets and forwards it on to a Collector.

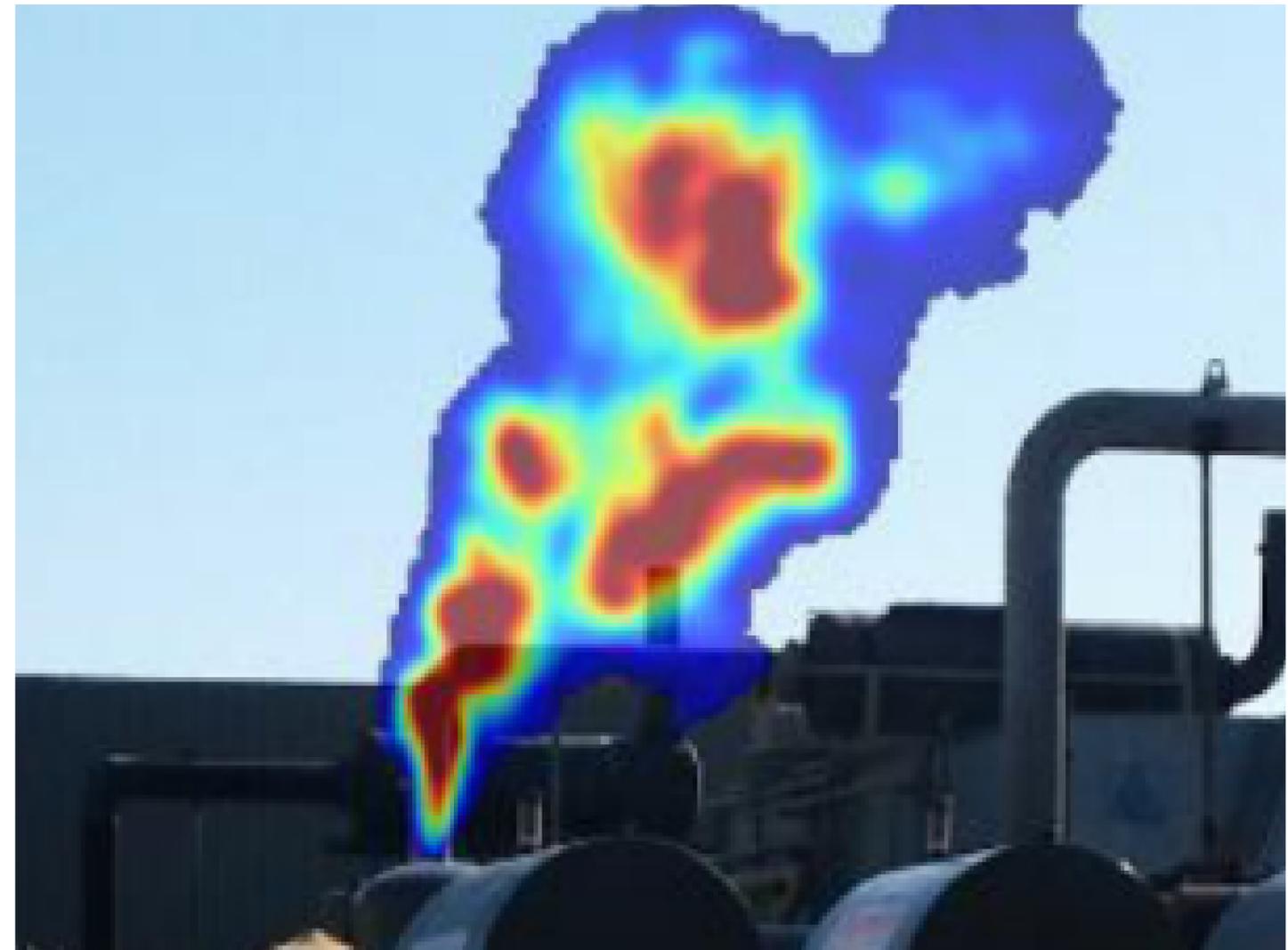
The Extricator

Extracts operation information from new and existing devices/sensors using MODBUS.

VISUAL SENSOR INTEGRATION

Combining visual images with sensor data to verify, validate & respond from end-to-end.

E2E's visual sensors seamlessly integrate into our IMS Distributed Endpoint Management (DEM) platform, giving you eyes in the field alongside your existing other network devices

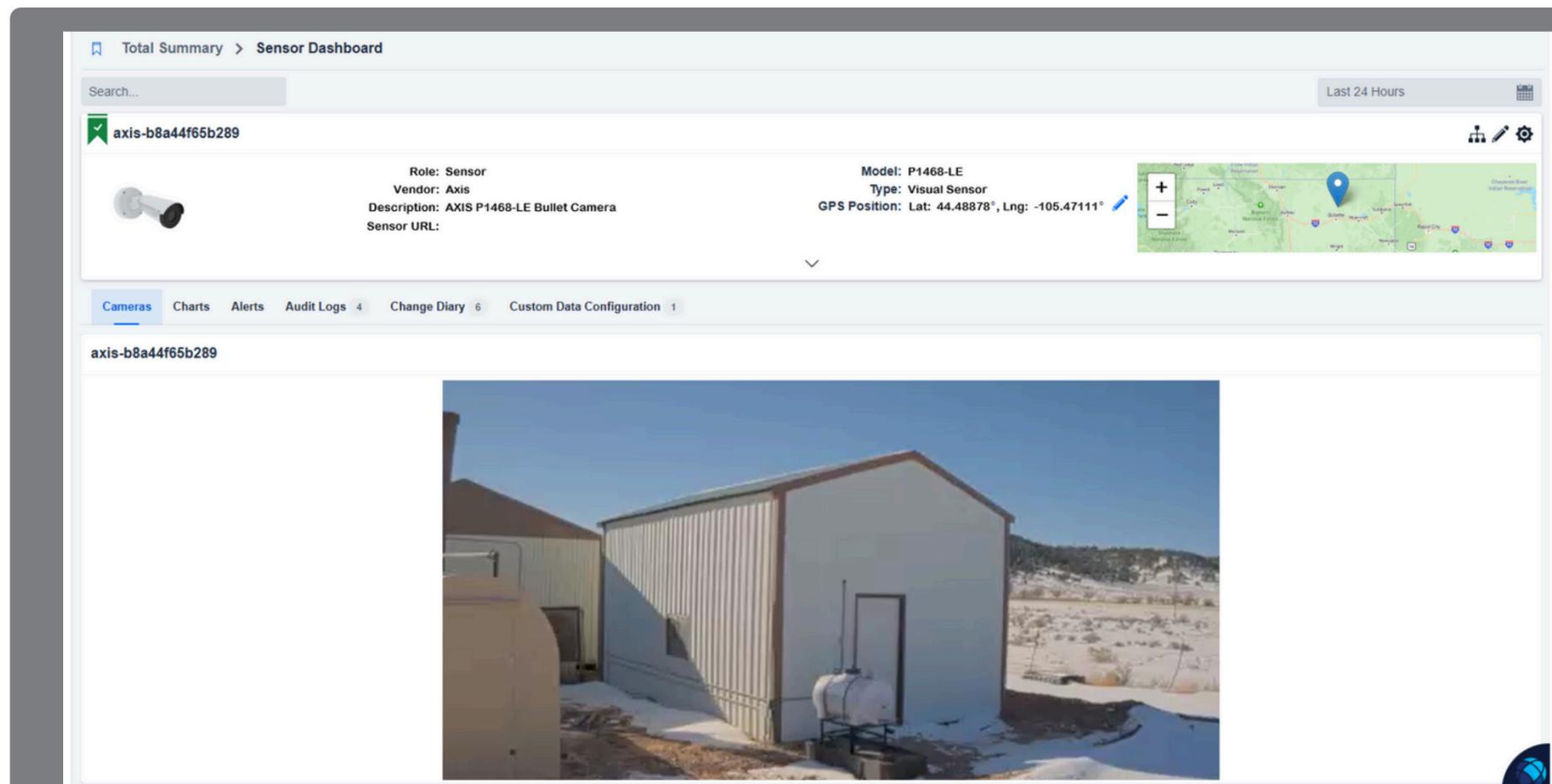


VISUAL SENSORS

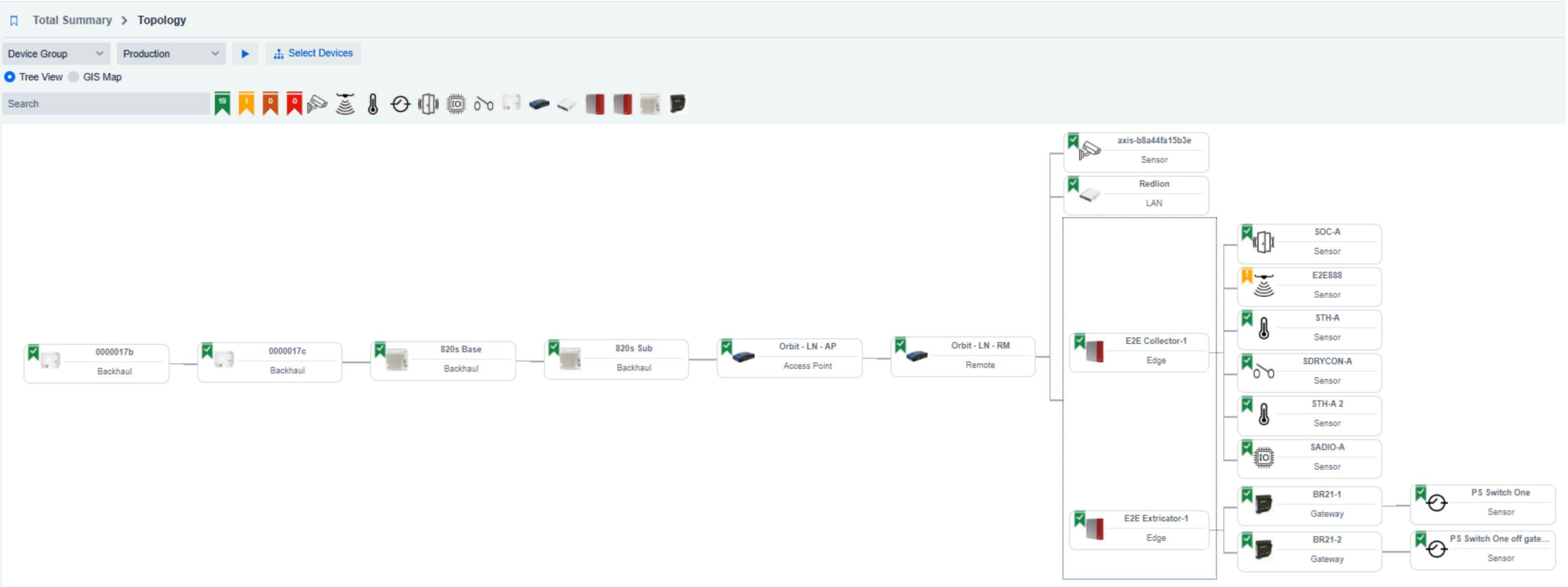
Visual sensors can operate as a standalone sensor or be used with other E2E sensors to provide context for data. Visual sensor alerts can leverage the processes within the IMS for a single systems and one dashboard.

Use cases

- Thermal/IR Imaging
- Site Security
- PPE compliance
- Remote visual inspection
- Process Validation
- Substation monitoring
- Leak Detection
- Flare Detection
- Fire/Smoke Detection



VISUAL SENSOR INTEGRATION IN THE IMS



OPERATIONAL VISIBILITY: DEVICE DETAIL VIEW



DIGITAL TWIN CAPABILITIES

When combining the E2E network and edge solutions, you get an automated capability to display your operational assets in a real-time Digital Twin dashboard with integrated topology. The power of the integration and automation from end-to-end makes it the most powerful solution in the market.



CONTACT US



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