CloudRail

Managed OT-to-Cloud Connectivity

Belden's CloudRail software ingests data from legacy and modern equipment in industrial environments, preprocesses it locally and sends it – ready to use – to any cloud for further analysis and action.

- **Accelerated Time-to-Value:** Connect any industrial asset to any cloud in hours instead of weeks, with plug-and-play access to 30,000+ sensors and data normalization capabilities.

- **Simplified Edge-to-Cloud Data Flow:** Acquire, process data and seamlessly send it to any cloud (AWS, Microsoft Azure, Google etc.) in a consumable format, eliminating complex integrations and data silos.

- **Scalable and Secure Device Management:** Roll out, manage and update thousands of globally distributed edge devices remotely from a centralized platform.

CloudRail Product Families

- **CloudRail.Box Max:** A powerful managed edge gateway for data preprocessing at the edge and streamlined cloud connectivity.

- **CloudRail.OS:** A docker container that runs the full CloudRail functionality on any type of hardware or in data centers.

- **CloudRail.DMC:** A central and cloud-based software to configure and manage all CloudRail Edge devices.

Out-of-the-Box Support For:

IO-Link, OPC UA and Modbus

CloudRail supports more than 30,000 industrial sensors (IO-Link), OPC UA and Modbus TPC/RTU plug-and-play

AWS, Microsoft Azure, etc.

CloudRail seamlessly integrates into all major cloud platforms:

- AWS IoT (Core, Sitewise, Sitewise Edge, Greengrass)
- Microsoft Azure IoT (Hub, Central, Edge)
- Google Cloud, Alibaba and many others
- MQTT support for full flexibility

Your Benefits

Industrial networks keep scaling up – and data growth is inevitable. At the same time, organizations are aiming to collect more data from legacy equipment to propel performance and uptime gains.

Belden's CloudRail software empowers organizations to aquire data from any type of operational technology and send it to any cloud. With CloudRail, organizations can connect modern machines with standard protocols like OPC-UA and retrofit older equipment with sensors to gather, normalize and preprocess data. Organizations can tap that data to problem-solve locally at the edge or send to the cloud for visualization, further analysis and storage.

Applications

Historically, connecting industrial assets to the cloud has been a cumbersome, complicated undertaking. Older assets with legacy protocols are extremely complex to connect to modern digitization services, leaving many organizations stalled at the starting gate.

A fully managed solution, CloudRail connects all types of industrial equipment and adapts easily to new requirements. Features such as out-of-the box detection for 30,000+ industrial sensors, centralized device management, and plug-and-play cloud deployment make integrating industrial machines easy.

Organizations can use the data harnessed by CloudRail for advanced use cases, such as:

1. Real-time OEE assessment

- Production process optimization
- Asset utilization improvement

2. Condition-based monitoring

- Downtime reduction
- Predictive maintenance

3. Energy monitoring

- Waste reduction
- Product Carbon Footprint (PCF) tracking

Markets

Purpose-built to solve the industrial connectivity challenge for modern and legacy assets, CloudRail benefits a wide range of industrial segments.

CloudRail is ideal for:

- **Manufacturing**
- **Automotive**
- **Consumer Packaged Goods**
- **Food and Beverage**
- **Machine Building**
- **Material Handling**
- **Airports**
- **Intelligent Traffic Systems**