eurotech
UNLEASHING THE POWER OF THE EDGE

Manufacturing / Industrial Automation: Smart Connected Assets / Packaging Machines

Challenges

Continuous Monitoring of Asset (Machine) Performance & Status

Manufacturers of assets (machines) that typically perform tasks as part of a production process, like NC milling systems, packaging machines, robots or industrial printers, are required to design products that more easily enable Industry 4.0 and digital transformation integrations for their customers, while enabling them to improve product reliability, service levels and new, “as a service” business models. That requires the assets to be monitored closely to ensure highest availability and optimum performance. For example: production machines status and performance data is essential to ensure effective operation and optimized service schedules. Historical and real-time data from sensors, field buses, PLC’s and logs are the basis for applying analytics on a cloud level for predictive and preventive maintenance.

The Eurotech Solution

Connected, Software Defined Assets with Logging

IoT-based solutions collect, compute and communicate constantly vital data from assets in the field to the cloud. Eurotech’s ReliaGATE IoT Gateways collect and aggregate data from as different sources as vehicle field buses (e.g. Modbus, OPC-UA, S7, etc.), and sensors. The established communication channels are bi-directional, also control information can be sent to the assets in the field. Digital twins of the field assets, APIs and no-code programming of the IoT Gateway ensure efficient application development. Solid security implementation, advanced logging features and OTA (Over-The-Air) device management are foundational elements not only for a reliable service delivery to the customer, but also for the implementation of new applications and business models. Seamless integration with the AWS services makes it possible to store and process data efficiently in the cloud.

Benefits

Substantially improved operational excellence, with further positive safety and customer satisfaction effects.

Overall Equipment Effectiveness OEE

Being able to react in real-time on asset status and performance values, ensuring optimum asset performance. Optimize service schedules. Predict and ensure that supplies are offered / delivered when and where needed.

Improved Service Levels & Reliability

Advanced logging is providing vital data for detailed audit trails as part of continuously ensuring service quality and compliance. Leveraging real-time data from the field, including predictive maintenance.

Enabling New Business Models

Machines getting connected and remotely managed form the basis for new revenue streams and business models, e.g. “Asset as a Service”.

Eurotech on AWS

Eurotech is a multinational company that designs, develops and supplies ruggedized Edge Computers and Internet of Things (IoT) solutions to system integrators and enterprises. The portfolio ranges from IoT software stacks to Edge Gateways and Edge Servers to High Performance Edge Computers and Edge AI Systems. Eurotech complements the AWS offerings by enabling customers with application optimized Edge / IoT building blocks for demanding verticals like manufacturing, transportation, agriculture, energy, utilities and medical. Eurotech is part of a global AWS ecosystem that allows to create and leverage "best in class" solutions for the Industrial IoT, without compromising operational technology (OT) requirements.

aws PARTNER

Features

Effective Development and Reduced Time-to-Market

The Eurotech offering marries certified hardware with a full software stack, including a managed Linux OS and a powerful IoT device middleware ESF (Everyware Software Framework). ESF comes with a a low-code/no-code development solution, a wide range of supported field protocols and ready to use AWS IoT Core and AWS IoT Greengrass integrations. The IoT Management Platform EC (Everyware Cloud), enables remote and full lifecycle management, advanced logging and health monitoring features.

Clear Focus on Low TCO and Risk Mitigation

The offering addresses major aspects that add to the total ownership costs of an IoT solution, like security, device software lifecycle management, health monitoring and logging. Device abstraction on a middleware level does address challenges associated with changing hardware requirements and end of life of components. These risk aspects are further mitigated by long product life support, extended warranty options and a broad professional services offering.

Case Study:

Smart Connected Packaging Machines

GALDI

Challenges

Galdi, a leading manufacturer of industrial packaging machines, required an IoT Solution with an application optimized gateway to remotely manage manufacturing machines, gain valuable asset data and enable new customer services / business models.

Solution

The customised (HW & SW) ReliaGATE IoT Gateway enables continuous monitoring of machine performance and the implementation of adaptive diagnostic, control and supply strategies. EC in AWS and industrial-grade IoT gateways with ESF and AWS IoT integrations to enable seamless access to AWS services to get data easily into the customer's / asset owner's applications & cloud services.

Results

Data is made available to not only Galdi the asset manufacturer on the AWS cloud side for analytics, business logic and visualization, increasing situational awareness & operational efficiency. According to Deloitte**, on average, predictive maintenance alone increases productivity by 25%, reduces breakdowns by 70% and lowers maintenance costs by 25%.

**Predictive Maintenance | Position Paper - Deloitte Analytics Institute

Get started with Eurotech solutions on AWS

Visit eurotech.com to learn more about Eurotech`s Offering for Industrial Automation & Manufacturing. Visit AWS Certified Device Catalog for Information on ReliaGATE & ReliaCOR industrial-grade IoT Gateways, Edge Servers and Edge AI Systems.

aws Qualified Device AWS IoT Core

aws Qualified Device AWS Greengrass

aws Qualified Software