SAP LEAP

EDGE COMPUTING SOLUTION

AT A GLANCE

The NTT DATA Edge Computing Solution enables manufacturers to optimize Industrial Internet of Things (IIoT) use cases by combining the responsiveness and security of edge devices with the benefits offered by centralized cloud-based resources.

BUSINESS CASE

Edge computing has particular promise for digital manufacturing as it overcomes the challenges of storing, processing and analyzing in the cloud the large quantities of high-frequency data produced by IIoT equipment. The NTT DATA Edge Computing Solution lightens the network load and reduces data latency by allowing resources to be located at the edge for real-time data collection and autonomous decision making.

DESCRIPTION

Edge computing is the term given to the deployment of data handing and processing functions close to the source of the data, and is complementary to the cloud computing model, in which computing resources are centralized and virtualized, and often located at a great distance from the source of the data.

By enabling production equipment and other factory systems to connect to the cloud while also access resources at the network's edge, manufacturers can optimize their network to their specific needs and reduce network latency.

Locating an analytics capability in edge devices means that data produced by a production asset can be analyzed locally in real time to identify unusual behavior and acted upon locally – stopping a drilling machine before the drill bit breaks, for example.

For production planning, maintenance scheduling and other more complex tasks, the data produced locally can be sent to the cloud and combined with other structured and unstructured forms of data.

HOW IT WORKS

- NTT DATA's Edge Computing Solution integrates edge computing devices, SAP IIoT and the SAP Business Technology Platform to give manufacturers the ability to build, manage, and deploy applications and connect data and business processes at the edge to create single integrated platform

- When combined with SAP S/4HANA, the NTT DATA Edge Computing Solution extends the capabilities of traditional ERP/MRP platforms used in manufacturing into areas such as IIoT integration, big data processing, machine learning, anomaly detection and predictive analysis.

- The data generated by the production assets is available to be processed or analyzed at the network edge, where it can be used to drive real-time decision making, or preprocessed prior to being sent to the cloud or the ERP system.

SUMMARY BENEFITS

- Reduces unplanned downtime and detects hazardous incidents faster.

- Greater data security and privacy.

- Latency-sensitive data can be processed at origin for better performance.

- Saves on cloud computing processing and storage costs.

- Reduces the load on network.

- Improved resilience in case of intermittent connectivity.

ABOUT NTT DATA

NTT DATA – a part of NTT Group – is a trusted global innovator of IT and business services headquartered in Tokyo. We help clients transform through consulting, industry solutions, business process services, IT modernization and managed services. NTT DATA enables clients, as well as society, to move confidently into the digital future. We are committed to our clients' long-term success and combine global reach with local client attention to serve them in over 50 countries. Visit us at nttdata.com.

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