

Data Management for the Edge

Driving a Trusted Future with Fujitsu

FUJITSU

Distributed IT is back. We are already seeing a shift from centralized computing – with data managed in data centers and in the cloud by hyper-scale providers – back to a more distributed landscape. And as AI, IoT and other game-changing technologies powering Industry 4.0 gain traction, more data will be generated and processed at the edge of enterprise networks.

Sometimes, it is just not feasible to move data to the cloud or data center for processing: just one smart car, for instance, produces more than 25 GB of data every hour. Transferring all this data to the core or cloud would require huge bandwidth, and it is impractical to make this capacity available. If analytics is taken closer to the edge of networks – to the sensors and devices in cars, factories, warehouses and delivery trucks that are actually generating the data – organizations need less bandwidth, benefit from near real-time feedback, and can capitalize more effectively on the data and business insights of IoT.

Edge computing overcomes the limitations of centralized computing, such as latency and bandwidth, data privacy and autonomy, by moving processing closer to the data source.

Edge is the future! By 2022:



40%¹ of enterprises to double edge spending¹



As a result of digital business projects, **75%**² of enterprise-generated data created and processed in traditional data center or cloud – an increase from the less-than 10% generated today²

¹IDC, May 2019 ²Gartner, "Start Moving Data Management Capabilities Toward the Edge", Refreshed 9 January 2019, Published 29 September 2017

Edge computing: fact file

Edge computing enables data to be processed and analyzed close to where it is collected, enabling actionable insights to be derived fast. This is how home-based personal assistant devices can instantly provide a weather forecast, or how a self-driving car knows to stop for a pedestrian.

With edge computing, organizations can:

- Reduce the distance their data must travel
- Lower their network load and cost
- Mitigate bandwidth and latency issues
- Speed response time and app performance
- Make decisions in real time
- Improve customer experience and corporate reputation
- Reduce security risk, space and energy requirements

Learn more about Fujitsu and NetApp:

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shaping tomorrow with you

Edge challenges

The key challenges for a successful edge implementation are protocols and data management: getting IT systems to instantly understand the language (or protocols) that the machines are speaking; and supporting seamless data management that makes instances of data available at the point of need, be that at the edge, in the core or in the cloud.

Fujitsu INTELLIEDGE – Operational Technology (OT) meets IT at the edge

Fujitsu INTELLIEDGE is the solution for getting systems to talk to one another. It acts as a layer between OT (in factories and machines) and the IT (the IoT platform, cloud or ERP). It also keeps distributed data under control to make it available for business analytics, prevent loss and meet compliance requirements.

INTELLIEDGE fact file

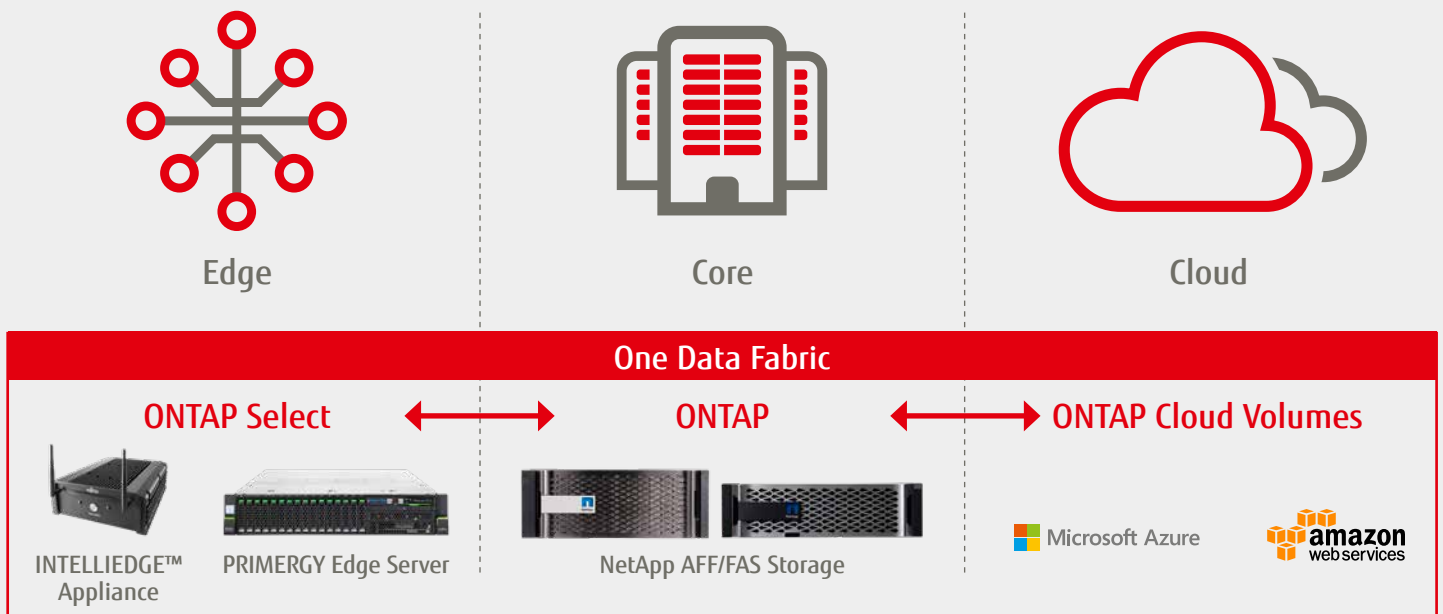
The FUJITSU IoT Solution INTELLIEDGE™ Appliance and Gateway systems offer a scalable platform for a wide range of edge computing applications and scenarios in Industry 4.0 and IIoT (Industrial Internet of Things) context. The INTELLIEDGE Appliance is at the interface between the organization and its marketplace, and manages collection, control and actuation of data generated by sensors in operational environments. The INTELLIEDGE Gateway is flexible, configurable hardware with a pre-installed operating system that integrates smoothly into the enterprise's Industry 4.0, IoT and IIoT initiatives.

Fujitsu and NetApp for unified data fabric

When data storage and processing are distributed between edge, core, and cloud, the key challenge is to keep tabs on all the data being generated and ensure it can be leveraged to generate valuable business insights. Fujitsu partners with NetApp to build the data fabric that enables organizations to manage and control data regardless of where it is created, processed, analyzed and stored, and integrate the edge with the corporate data fabric.

Data Fabric powered by NetApp's ONTAP connects Fujitsu PRIMERGY servers at the edge with core and cloud IT enabling organizations to unify, simplify and accelerate data management and move information seamlessly between storage resources and to the point of need.

Integrating the Edge with the Corporate Data Fabric



Strong industry partnership

In their over 20-year partnership, Fujitsu and NetApp have set new standards for optimizing IT infrastructures, and are now helping organizations take the next step to distributed IT architectures that combine edge, core and cloud.

Learn more about Fujitsu and NetApp:

→ www.fujitsu.com/netapp

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