

Solution Brief

NetApp HCI for Edge Computing

Aggregate IoT data at the edge for local, real-time processing and inferencing with your data fabric powered by NetApp

Perform Inferencing at the Edge

- Process mission-critical data at the edge to make quicker business decisions
- Cost-effective computing power optimizes analytics reporting

Connect Edge to Core to Cloud

- With your data fabric powered by NetApp, streamline operations
- Harness the power of the data from the entirety of your enterprise

Companies across many industries, such as retail, manufacturing, healthcare, and automotive, are using the Internet of Things (IoT) and edge computing to improve operations, gather analytics, and help optimize their business model.

The ability to aggregate data at the edge for local, real-time processing and inferencing with a cost-effective system is becoming increasingly important. To process this mission-critical data, you need a system with data protection that can provide analytics at the edge to feed artificial intelligence (AI) and machine learning (ML) models and that is easy to manage and control.

 RETAIL <ul style="list-style-type: none">• Security Sensors• Inventory visibility• Location-based marketing• Layout optimization• Automated checkout• Smart shelves• Robot employees• Supply chain optimization	 MANUFACTURING <ul style="list-style-type: none">• Facility management• Predictive maintenance• Inventory monitoring• Quality control• Connected operations intelligence• Supply chain optimization• Electronic design automation• Smart plants (Industry 4.0)	 HEALTHCARE <ul style="list-style-type: none">• Remote patient monitoring• Wearables• Facility management• Hospital occupancy optimization• Automated medicine delivery• Telesurgery• Smart labs• Smart hospitals	 AUTOMOTIVE <ul style="list-style-type: none">• Connected cars• Fleet management• Vehicle telematics• Predictive maintenance and safety• Driver assistance• Autonomous vehicles• Infotainment• Parking• Safer traffic flow
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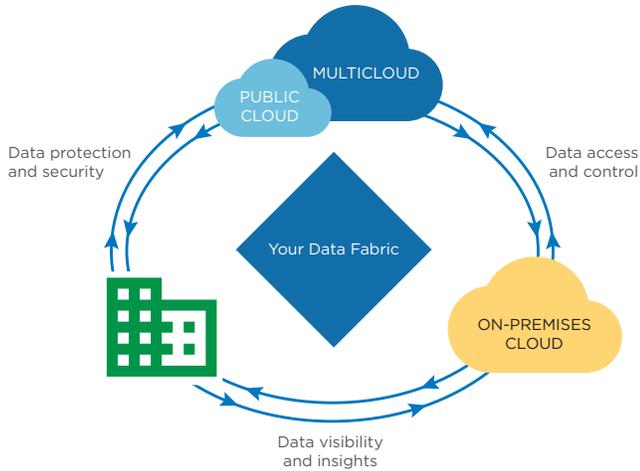
The Rise of Edge Infrastructure

NetApp® HCI allows you to collect and aggregate data at the infrastructure edge from IoT devices. NetApp HCI offers compute and storage capabilities to perform just-in-time analytics and compute on IoT datasets at the infrastructure edge, as well as implement AI/ML processes. Automated controls manage bursts without interference to maintain consistent performance.

Your Data Fabric: Connecting Edge to Core to Cloud

Data collected from edge IoT devices is critical to improving operations and delivering a high-quality customer experience. NetApp's 25 years of proven data protection and mobility technology offers data availability when and where you need it. NetApp HCI includes NetApp Element® software, which is designed to meet the high-availability standards and data protection that are expected from enterprise-class arrays. With Element Software, NetApp HCI helps you prepare for tomorrow's applications and data demands. As protecting data becomes ever more important, the native data protection features found in Element are essential to all infrastructures.

The **data fabric** is a software-defined approach from NetApp for data management. It enables businesses to connect disparate data management and storage resources, whether on premises or in the public cloud. NetApp HCI can streamline data management between all of these locations for enhanced data portability, visibility, and protection.



About NetApp

NetApp is the leader in cloud data services, empowering global organizations to change their world with data. Together with our partners, we are the only ones who can help you build your unique data fabric. Simplify hybrid multicloud and securely deliver the right data, services and applications to the right people at the right time. Learn more at www.netapp.com.

Real World Hybrid Cloud Infrastructure and IoT

Fraunhofer, a German research organization that helped pioneer cutting-edge technology such as MP3 and pattern-recognizing machines for digitally restoring shredded documents, knows that the future of manufacturing lies in industrial automation. Fraunhofer uses NetApp HCI to store and process massive datasets, providing a seamless experience between the shop floor devices and the IT infrastructure.

To learn more about how NetApp HCI can help you perform just-in-time analytics with compute at the edge to inform real-time decisions, visit the [NetApp HCI webpage](#).