Accelerate hybrid analytics with data fabric technology

Across all market segments, enterprises want to be more data driven by leveraging data to improve business processes through automation, increase decision-making agility, and enhance customer experiences. Achieving these goals requires a change in focus from traditional approaches to one that allows the organization to be data driven. Where the data is the foundation instead of intuition, experience, or external environments.

But there are challenges that stand in the way.

- Siloed data across multiple worldwide locations
- Redundant copies of data across these locations that increase storage costs
- No visibility into available data, where it is located, or who is authorized to access

Navigating these challenges requires a more unified data perspective across all architectures.

Traditional analytic solutions only focus on one architecture, on-premises, cloud, or a specific data format, structured or unstructured. Combining this distributed data into a unified view requires time-consuming negotiations for access, data discovery, copying, and then cleansing of the data before processing can begin.

Data fabric technology has been steadily gaining traction as organizations realize its ability to unify heterogeneous ecosystems and systems associated with hybrid multicloud environments. By unifying isolated data locations and systems, stakeholders get dependable delivery of the insights they need to complete everyday tasks.

Unified control, visibility, and accessibility

HPE Ezmeral Data Fabric Software delivers a federated data layer and unified control of hybrid multicloud environments. As shown in Figure 1, it helps organizations accelerate insights by combining files, objects, tables, and streams into a data plane that spans across all geographies and architectures. This target-agnostic solution can be deployed into existing data centers, colocation, on any metal in the public cloud, and as a small form factor at the edge.
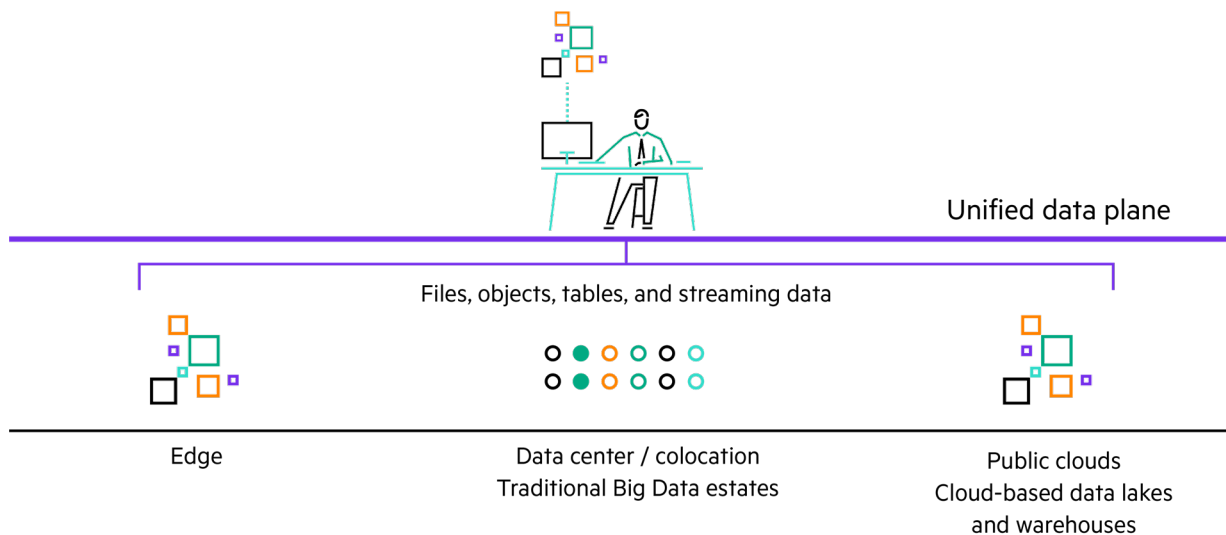
Figure 1. HPE Ezmeral Data Fabric Software delivers unified access, management, and governance across hybrid multicloud environments.

Strategically placing data and workloads into specific architectures not only delivers cost efficiency and specific business outcomes, but it also comes with challenges due to data gravity, security, and compliance with regulations. The built-in management, security, access, and compliance systems of HPE Ezmeral Data Fabric Software simplifies data sovereignty with automated policies that transparently configure and enforce data locality, privacy, and security closing potential gaps in coverage that expose the organization to risk.

Organizations can combine legacy and modern analytic architectures into the same fabric because HPE Ezmeral Data Fabric Software abstracts data from the storage protocol. Support for the most popular analytic formats allows organizations to continue leveraging existing Big Data estates, cloud-based lakes, and warehouses while also combining that data with streaming and table-based data.

The result is a dependable data version that is accessible to multiple users and applications while allowing organizations to reduce software and infrastructure costs linked to multiple analytic point solutions. The flexibility of storing data once and then accessing it with standard formats increases productivity for developers and data science teams by reducing the latency linked to traditional analytic approaches.

Seamless data access

A key ingredient to the data plane of HPE Ezmeral Data Fabric Software is a consistent point of data access known as a global namespace. As shown in Figure 2, the global namespace makes it possible for users and applications to see all the fabrics and their linked volumes, buckets, and topics then enable authorized users and applications to directly access it from any location.
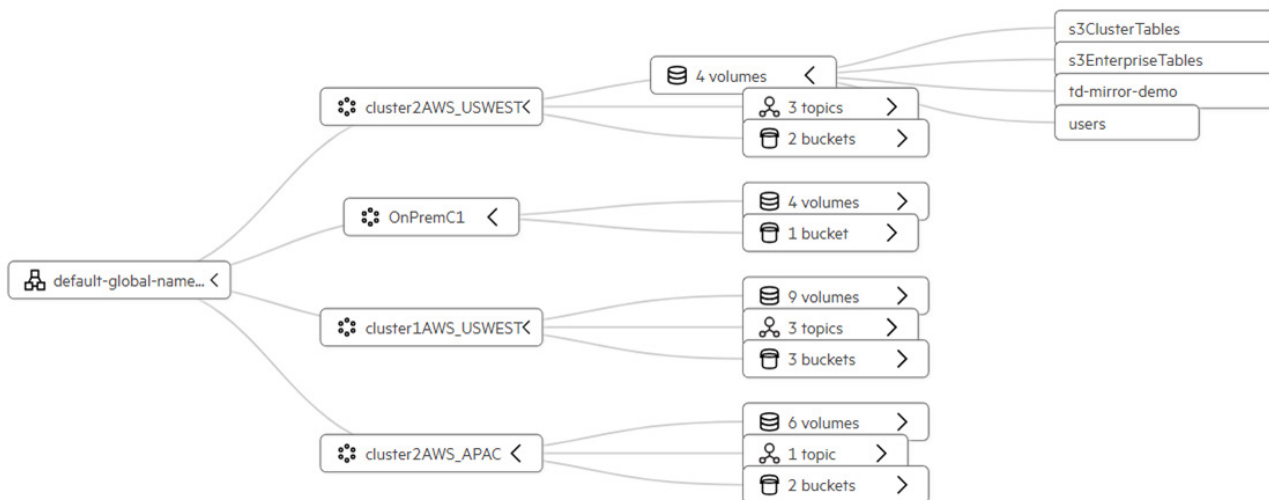

Figure 2. The global namespace provides a consistent access point for users and applications to access multiple data fabrics and their linked data from any location.

Figure 2 shows four data fabrics; however, hundreds of fabrics can reside in a single namespace. Customers have traditionally used firewalls and network boundaries as the criteria for creating a new fabric.

Simplified data management

A key element for any data-driven organization is seamless access to data across a diverse set of stakeholders. For this reason, the user interface of HPE Ezmeral Data Fabric Software is easy to understand and operate without extensive instruction. As shown in Figure 3, the initial dashboard delivers transparent tracking of costs and consumption across all data fabrics.
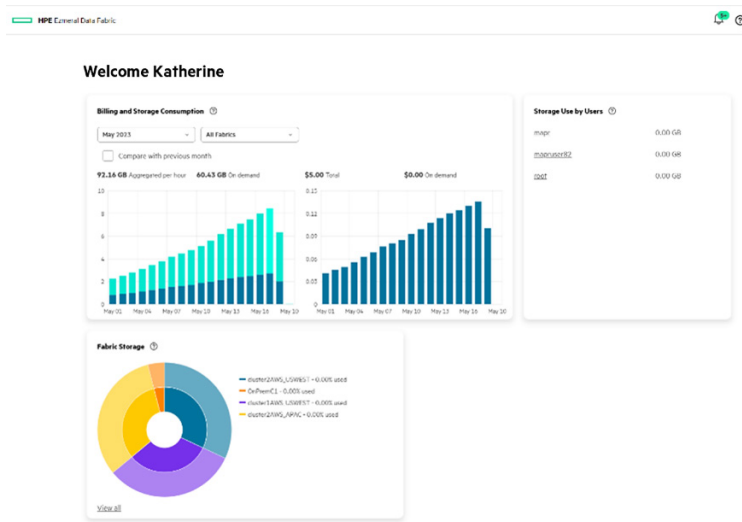
Figure 3. The intuitive user interface keeps customers informed about costs and resource consumption across multiple data fabrics deployed in SaaS and customer-managed environments.

Figure 4 shows the point-and-click ease of management allowing authorized users to create fabrics, volumes, buckets, and topics through menus while background processes transparently set up, configure, and attach the component to the respective data fabric and global namespace without IT intervention.

Figure 4. Self-service creation of data fabrics, volumes, buckets, and topics by authorized users without IT intervention.

Customer success

The value proposition for HPE Ezmeral Data Fabric Software has resonated with customers across a broad spectrum of use cases. Here are just a few examples:

Financial services

"Risk prediction and anomaly detection are critical capabilities to protect our global financial markets. These workloads require massive amounts of data to be ingested at scale. With HPE Ezmeral Data Fabric Software, we have delivered a strategic platform to ingest, store, secure petabytes of financial data, and use a subset for machine learning."

– Arnab Chatterjee, Vice President and Global Head of Database, Middleware, and Web Engineering, Nomura

Digital marketing

"Alliant's analytic tools are currently deployed on-premises and in the public cloud. HPE Ezmeral Data Fabric Software enables us to enhance our digital and television advertising, scale audience creation and delivery, optimize where the data is stored and analyzed, and reduce capital expenses through a managed services and SaaS approach."

– William Adam, Chief Technology Officer, Alliant

Manufacturing

A global manufacturer was looking to create a global data highway to improve data science productivity. HPE Ezmeral Data Fabric Software, open-source tools, and independent software vendor (ISV) helped this customer achieve their vision to provide data scientists with workloads that automatically scale on demand and the ability to separate development from infrastructure allowing the data science teams to focus on model development instead of infrastructure.

Take the next step

HPE Ezmeral Data Fabric Software enables the unified data layer required by modern data-driven enterprises. This solution can be deployed across a broad spectrum of environments: on-premises, colocation, on any metal in multiple public clouds, and existing HPE GreenLake instances.

Make sure your business is equipped with the insights needed to keep ahead of the competition. Get started today by signing up for a free instance to evaluate this solution.

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