Multicloud solutions for Government

Every cloud—one experience:
Benefits of a unified multicloud for Federal Agencies

■ NetApp

A common fabric layer that unites multiple clouds

As a technology and cloud partner, you have a labyrinth of data choices: JWCC, milCloud 2.0, DISA Capacity Services, and any of the 500+ AWS or Azure GovClouds in operation today. Every cloud environment requires different APIs, different ways of managing the data, and different ways of migrating the data using traditional lift-and-shift methods. There is no easy way to see all of your data in different clouds and on-premises instances in a single view, much less move that data quickly and seamlessly between those various environments. Every cloud demands a different way of managing your data and delivers a different user experience, requiring users to navigate a series of cloud silos.

What if you could have the same user experience in any cloud or on-premises environment? What if you could drag and drop data volumes from one on-prem location or cloud into another, and within minutes, the data is provisioned and ready for use? Moving data like that would be a "snap." So would managing your applications and data services in different clouds and environments, since any given app would use the same APIs no matter where it's hosted. As a mission partner, there is already so much to manage with changing mission requirements, exercises, real-world events, evolving budgets, and new cloud goals. Wouldn't it be great to have one

certainty—the certainty that you can seamlessly move your data wherever you want, and wherever you're authorized?

The answer to cloud silos

Cloud silos are eliminated with a common fabric layer built on NetApp. A common fabric layer is defined by NetApp® ONTAP® software, a single DISA-APL approved data operating system that is cloud- and vendor-agnostic. It may even be the very same operating system used in your end-user-operated on-premises data centers. It provides bidirectional movement of data among clouds, allowing federal end-users to move data from edge to core to cloud seamlessly. It also offers the ability to move data to different clouds without rehydration, re-encrypting, and reengineering. A common fabric layer is not a matter of common networking at the Layer 3 level. It is a cloud-vendor-agnostic data layer that allows data and applications to be controlled, to be moved, and to perform in the same manner wherever the data and applications reside.

This unique industry innovation lets you migrate existing applications, develop new applications with existing datasets, and place your applications in the optimal applicable spot based on cost, performance, and security considerations. ONTAP is the widest-
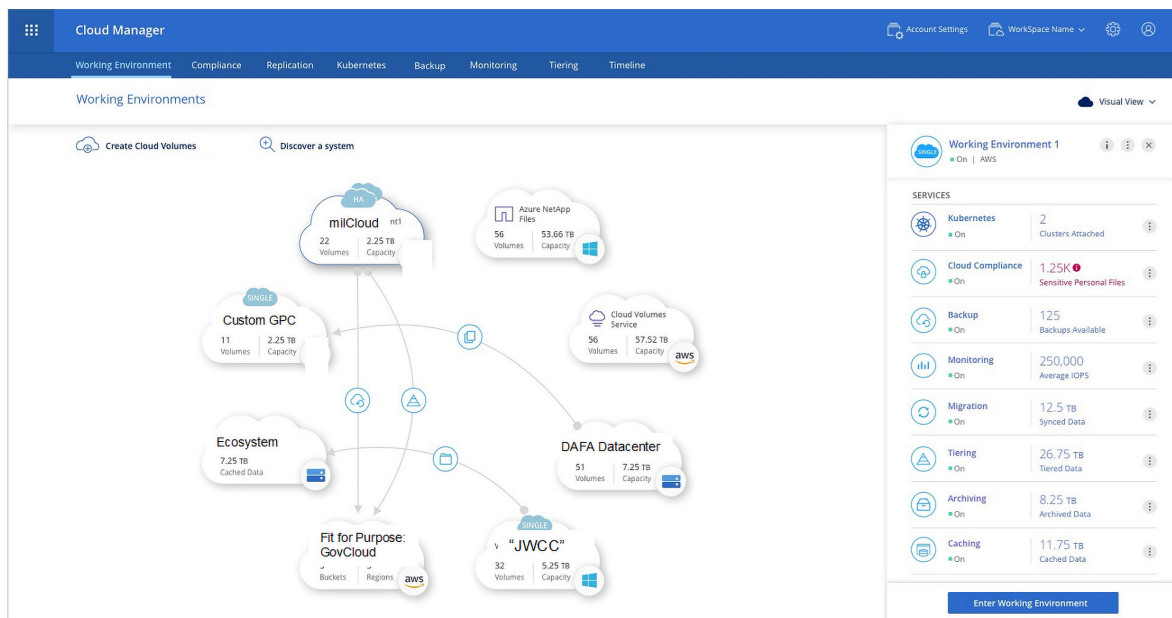

Figure 1) A common control plane in NetApp Cloud Manager (included at no cost with cloud data services) enables you to easily move data and applications to the optimal location.
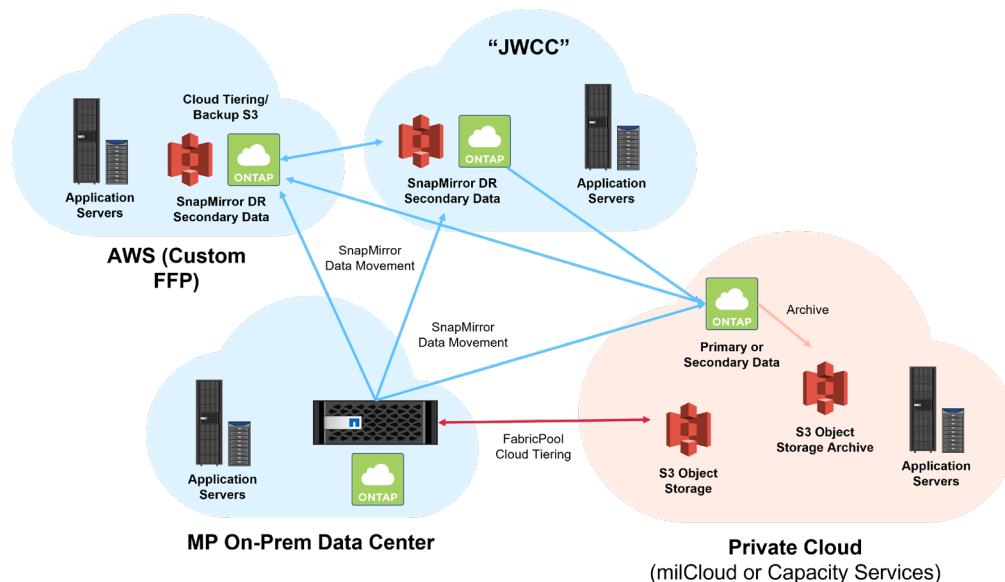
Figure 2) C3E common fabric example.

used storage OS across federal agencies. It is the very same OS that you can use in AWS, Azure, and Google Cloud. ONTAP is expected to be available with a number of cloud data services in the JWCC Marketplace, and can also be available in various DISA-supported private clouds. This allows you to drag and drop your volumes where you want within the Federal Biosphere of clouds (Figure 1).

How the common fabric layer works

What is happening underneath the cloud icons in Figure 1? NetApp SnapMirror® data replication technology snaps data and easily migrates applications and IL-Certified cloud data services between environments (Figure 2).

NetApp has abstracted the hardware from the software layers in its ONTAP OS. This means that the same OS data services environment found in the majority of government data centers is available today as a product in partnership with the major commercial cloud vendors in their native cloud environments. This includes tiering from a high-performance expensive tier to a slower secondary tier, storage efficiency, and data protection as well as other services. In addition, the ONTAP OS on-premises and in the cloud is instrumented from the

ground up to be part of a Zero Trust cybersecurity environment. This software architecture uses the capabilities built into the ONTAP OS to enable mitigation of attacks such as ransomware.

What can you do as a mission partner to seize the promise of a common fabric layer?

Insist that wherever your data goes, it lands in a cloud with NetApp cloud data services. Learn more at cloud.netapp.com

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About NetApp

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. www.netapp.com

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