NetApp Hybrid Cloud Announcements

NetApp recently announced a slew of new offerings to knit their hybrid cloud solutions together into a comprehensive package for their customers.

New NetApp Keystone Flex Subscriptions

NetApp has offered NetApp Private Storage (NPS) for hybrid cloud which required customers to purchase NetApp hardware and install it in Equinix CoLo facilities which allowed customers to access the same file and block data in AWS, Azure and GCP. NetApp Keystone Flex Subscription integrated with Platform Equinix takes NPS to the next level. With Flex Subscription **data storage services** and Equinix colocation services, customers contract with NetApp for the storage, space, power, cooling, and networking they need, and NetApp will install, run and own any ONTAP storage required at Equinix facilities. Flex Subscription is already available in 21 Equinix IBX® locations across 11 countries.

In addition to the partnership with Equinix, NetApp together with Cisco is offering **FlexPod-as-a-service** and with NVIDIA Base Command Platform **AI-as-a-service**. NetApp is currently the only NVIDIA Base Command Platform validated storage option. NetApp-Cisco FlexPod-aaS is available today, but NetApp-NVIDIA AI-aaS is in early access.

NetApp Keystone is a portfolio of payment solutions and storage-as-a-service offerings, comprised of **Flex Pay** (flexible leasing options), **Flex Subscription** (pay as you go subscriptions) and coming soon, **Flex Utility (**pay as you use option).

New NetApp ONTAP and StorageGRID software

There is a new 9.9 version of ONTAP out that offers easier management, expanded functionality for AFF **All-SAN Array (ASA),** even stronger file security, continuous data availability through larger metro-clusters, more replication options for backup/DR and improved single LUN performance. This adds:

- **Easier management** for faster time to create hybrid cloud configurations, easier hybrid cloud backups to StorageGrid using Cloud Backup Service, tighter integration of ONTAP capabilities, even better automated monitoring, faster cluster software/firmware updates and automated configurations using Ansible.
- **AFF ASA** includes support for 12 node ASA cluster, ActiveIQ management, NVMe-oF support on all ASA & end-to-end NVMe on A400 and A800 systems, and in-place conversions of AFF to ASA for all current AFA models.

The new StorageGRID 11.5, includes external KMIP, object lock, automated Erasure Code node rebalancing, node cloning, SmartRouting and larger capacities. NetApp says there's already over 1000 customers with 2+ Exabytes under StorageGRID management.

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NetApp Astra

Project Astra is the culmination of a realization that Kubernetes is the future application environment for IT. NetApp has had Trident CSI to support NetApp storage services for K8s container applications for a while now, but Astra takes this to a whole other level and provides application and data management for Kubernetes clusters in Azure or GKE as well as now, for on prem, including OpenShift.

In the cloud, Astra works with GCP GKE Cloud Volumes, and with Azure AKS, Astra leverages Azure NetApp Files. To use Astra, you connect Astra with your existing Kubernetes cluster. Astra installs and life-cycle manages Trident and manages storage. Once done, users can add and deploy Kubernetes apps and Astra will automatically provision persistent volumes for those apps using the appropriate NetApp storage.

But Astra does more than just provision volumes, customers can take application-data snapshots to object storage for backup/DR, and it can also be used to migrate container apps from one K8s compute cluster to another.

All this has been available in Azure and GKE for a while now but what was just announced was Astra for on prem that utilizes NetApp ONTAP or NetApp FlexPod storage for persistent volumes.

With the release of Astra Control Center on prem, customers can also run OpenShift applications with NetApp persistent volume storage on prem, in GKE or AKS. Moreover, in all these environments customers can all use the same Astra API to access services and provide K8s application & data protection throughout their hybrid cloud.

Significance

Astra seems impressive but all major storage and virtualization vendors are turning to Kubernetes and making it easier to use their solutions for persistent volumes. NetApp seems farthest along tying their Cloud Volume and ONTAP/FlexPod storage services into K8s container environment.

NetApp had also been an early proponent of hybrid cloud with their NPS in Equinix data centers but the new NetApp Keystone Flex Subscription powered by Equinix offering brings more flexible consumption models to look even more cloud like.

We would never had envisioned that NetApp would offer ONTAP based ASA systems, but here we are. There are two ways to look at this, 1) NetApp is listening to customers and doing whatever's needed to make them happy and 2) It's taken NetApp a couple of decades to see what the rest of the industry has always known. Some of this is no doubt due to differences in their respective customer bases but a part of this is due to corporate history and inertia. Nonetheless, one has to give them kudos for making a change like this in their major product line.

Silverton Consulting, Inc. is a Storage, Strategy & System consulting services company, based in the USA offering products and services to the data storage community.