



Summary and Conclusion

NetApp Solutions

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Table of Contents

- Summary and Conclusion: Why NetApp Hybrid Multicloud with VMware 1
 - Use case #1: Optimizing storage 1
 - Use case #2: Cloud migration 1
 - Use case #3: Data center expansion 1
 - Use case #4: Disaster recovery to the cloud 1
 - Use case #5: Application modernization 2
- Conclusion 2

Summary and Conclusion: Why NetApp Hybrid Multicloud with VMware

NetApp Cloud Volumes along with VMware solutions for the major hyperscalers provides great potential for organizations looking to leverage hybrid cloud. The rest of this section provides the use cases that show integrating NetApp Cloud Volumes enables true hybrid Multicloud capabilities.

Use case #1: Optimizing storage

When performing a sizing exercise using RVtools output, it is always evident that the horsepower (vCPU/vMem) scale is parallel with storage. Many times, organizations find themselves in a situation where the storage space requires drives the size of the cluster well beyond what is needed for horsepower.

By integrating NetApp Cloud Volumes, organizations can realize a vSphere-based cloud solution with a simple migration approach, with no re-platforming, no IP changes, and no architectural changes. Additionally, this optimization enables you to scale the storage footprint while keeping the host count to least amount required in vSphere, but no change to the storage hierarchy, security, or files made available. This allows you to optimize the deployment and reduce the overall TCO by 35–45%. This integration also enables you to scale storage from warm storage to production-level performance in seconds.

Use case #2: Cloud migration

Organizations are under pressure to migrate applications from on-premises data centers to the Public Cloud for multiple reasons: an upcoming lease expiration; a finance directive to move from capital expenditure (capex) spending to operational expenditures (opex) spending; or simply a top-down mandate to move everything to the cloud.

When speed is critical, only a streamlined migration approach is feasible because re-platforming and refactoring applications to adapt to the cloud's particular IaaS platform is slow and expensive, often taking months. By combining NetApp Cloud Volumes with the bandwidth-efficient SnapMirror replication for guest-connected storage (including RDMs in conjunction with application-consistent Snapshot copies and HCX, cloud specific migration (e.g. Azure Migrate), or third-party products for replicating VMs), this transition is even easier than relying on time-consuming I/O filters mechanisms.

Use case #3: Data center expansion

When a data center reaches capacity limits due to seasonal demand spikes or just steady organic growth, moving to the cloud-hosted VMware along with NetApp Cloud Volumes is an easy solution. Leveraging NetApp Cloud Volumes allows storage creation, replication, and expansion very easily by providing high availability across availability zones and dynamic scaling capabilities. Leveraging NetApp Cloud Volumes helps in minimizing host cluster capacity by overcoming the need for stretch clusters.

Use case #4: Disaster recovery to the cloud

In a traditional approach, if a disaster occurs, the VMs replicated to the cloud would require conversion to the cloud's own hypervisor platform before they could be restored – not a task to be handled during a crisis.

By using NetApp Cloud Volumes for guest-connected storage using SnapCenter and SnapMirror replication

from on-premises along with public cloud virtualization solutions, a better approach for disaster recovery can be devised allowing VM replicas to be recovered on fully consistent VMware SDDC infrastructure along with cloud specific recovery tools (e.g. Azure Site Recovery) or equivalent third-party tools such as Veeam. This approach also enables you to perform disaster recovery drills and recovery from ransomware quickly. This also enables you to scale to full production for testing or during a disaster by adding hosts on-demand.

Use case #5: Application modernization

After applications are in the public cloud, organizations will want to take advantage of the hundreds of powerful cloud services to modernize and extend them. With the use of NetApp Cloud Volumes, modernization is an easy process because the application data is not locked into vSAN and allows data mobility for a wide range of use cases, including Kubernetes.

Conclusion

Whether you are targeting an all-cloud or hybrid cloud, NetApp Cloud Volumes provides excellent options to deploy and manage the application workloads along with file services and block protocols while reducing the TCO by making the data requirements seamless to the application layer.

Whatever the use case, choose your favorite cloud/hyperscaler together with NetApp Cloud Volumes for rapid realization of cloud benefits, consistent infrastructure, and operations across on-premises and multiple clouds, bidirectional portability of workloads, and enterprise-grade capacity and performance.

It is the same familiar process and procedures that are used to connect the storage. Remember, it is just the position of the data that changed with new names; the tools and processes all remain the same and NetApp Cloud Volumes helps in optimizing the overall deployment.

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