Accelerate Private Cloud Deployments with NetApp HCI

Key Benefits

- Deliver a cloudlike experience for users with an on-premises platform
- Scale to the needs of diverse and growing pools of users and applications
- Deliver predictable performance to each application and protect them from interfering with each other

Building a private cloud requires a new approach to infrastructure

As organizations tackle the challenges and embrace the opportunity of digital transformation, many are realizing that they can't deliver the responsiveness that their end users want. IT teams are being asked to match the agility of the public cloud with internal resources that were not designed to deliver that type of service. A recent survey of 650 IT decision makers across the globe found that increasing IT operational efficiency was the number one goal of digital transformation, followed closely by improving the customer experience.

To meet the needs of digital transformation and the responsiveness to changing customer requirements, many IT professionals are considering the value of introducing a new platform to their ecosystem. They are considering platforms that can scale with ease, deliver predictable performance to each workload, and take advantage of advanced automation to eliminate manual tasks. By introducing a platform that is designed to help drive the digital workflows of today, IT leaders are looking to help accelerate the business results that executive teams expect from their organization.

Many enterprises initially thought that the public cloud was the solution to these challenges. Although the public cloud delivers the consumption agility that end users request, public cloud is not the best answer for every workload. IT teams today are looking to strike a smarter balance between on-premises workloads that run on a private cloud and workloads that live in the public cloud. The success of this hybrid cloud approach requires a private cloud that delivers the agility and self-service that end users appreciate from the public cloud, while reducing the public cloud cost burden on an organization.

To meet digital transformation needs and the requirements from application teams, many IT teams turn to hyper converged infrastructure (HCI) as a means to modernize their legacy infrastructure and enable the private cloud. To support scalability requirements, provide predictable application performance, and simplify automation and cloud connectivity, NetApp® HCI was designed to power your private cloud at scale, meeting your needs today and in the future.

Scale While Providing Predictable Performance for All Applications

Because of the unpredictable nature of growth, the private cloud must be built on a platform that can scale nondisruptively and without requiring deep technical knowledge. Each application has diverse compute and storage resource requirements. Therefore, to align your costs to your business requirements, to the ability to grow and to shrink your private cloud platform for compute and storage requirements independently is critical. But the ability to scale the platform is only the first stage to consider. As more workloads are consolidated on the private cloud, you must also confirm the performance of each independent application.

NetApp HCI is optimal for private cloud environments. You can allocate capacity and performance independently for every application and easily adjust the allocations as workloads shift or as your needs evolve. If an application needs more performance,
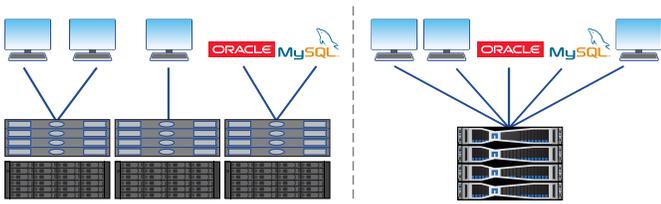
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Figure 1) Moving from dedicated hardware silos to a single, consolidated platform.

Figure 2) The NetApp Data Fabric with NetApp HCI.

the initial configuration can become a bottleneck. NetApp HCI, however, eliminates the penalty for underestimating requirements. You simply modify quality-of-service policies to change the settings for minimum, maximum, and burst, and the new settings take effect immediately.

With the scale and predictable performance of NetApp HCI, the foundation for building the private cloud is set. To improve the user experience and to deliver self-service consumption that matches user expectations of the public cloud, automation becomes the key to bringing the private cloud to life.

Delivering Operational Simplicity

To deliver the self-service needs of private cloud users, common provisioning and management tasks must be automated so that they can be performed without your IT team having to get involved. To deliver the public cloud experience from your private cloud, you must automate tasks and allow users to initiate them directly.

Because NetApp HCI is simple to provision and to manage, it's easy to automate customized storage provisioning as part of a self-service portal. Users can provision and modify storage to meet their workload needs without having to understand the complexities of LUNs, storage tiers, and so on. If they get the allocation wrong initially, they can modify capacity and performance instantly by simply changing the settings.

You can create a self-service portal by using vRealize Automation for the VMware environment. Or you can build your own interface by using the comprehensive, well-documented APIs for NetApp HCI and deep integration with management and orchestration platforms. To support application teams, you can use the automation tools that they prefer—including tools that you already use in production—and simplify management as your private cloud grows.
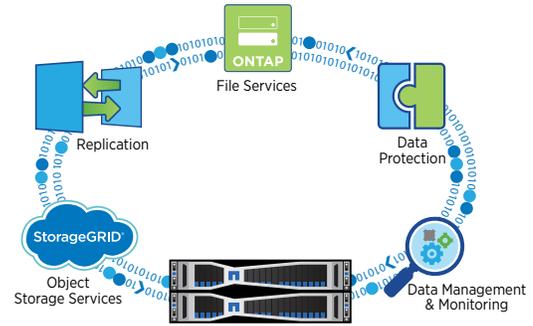
NetApp Data Fabric Integration

Your private cloud environment isn't much use if it doesn't integrate easily with other important elements of your IT environment and the public cloud. You need to be able to manage and protect data, and you must be able to integrate with other important applications and services in your environment.

NetApp HCI features integration with the NetApp Data Fabric, enabling file services, data protection, disaster recovery, and more, as well as close integration with the VMware ecosystem. With Data Fabric integration, your private cloud environment has easy access to advanced data services as you need them.

HCI at Enterprise Scale

NetApp HCI delivers benefits that other HCI solutions simply can't match. With NetApp HCI, you can run all your applications side by side with predictable performance. You can confidently deploy HCI across your entire data center and unleash the true power of your infrastructure by simplifying management and by independently scaling both compute and storage resources. And you can do it all while delivering a cloudlike experience to your customers with a private cloud that they want to use. NetApp HCI allows you to meet rapidly changing IT needs so that you can focus on what matters most: growing your business.

About NetApp

NetApp is the data authority for hybrid cloud. We provide a full range of hybrid cloud data services that simplify management of applications and data across cloud and on-premises environments to accelerate digital transformation. Together with our partners, we empower global organizations to unleash the full potential of their data to expand customer touchpoints, foster greater innovation and optimize their operations. For more information, visit www.netapp.com. #DataDriven