Accelerate End-User Computing Deployments with NetApp HCI

Key Benefits

Operational Simplicity
Reduce the complexity and painful re-architecture efforts required to address unpredictable desktop and application workloads

Predictable end user experience
Deliver well defined performance on a single platform without having new workloads consume resources and interfere with existing workloads

Multi-platform data mobility
The NetApp Data Fabric enables customers to respond and innovate more quickly because their data is accessible from on-premises to public cloud

End-User Computing (EUC) Requires a New Approach to Infrastructure

Despite the many advantages of EUC solutions—centralized management, increased security, and easy accessibility, to name a few—many organizations have been slow to adopt them. User expectations can be difficult to satisfy, and the complexity and cost of deploying and scaling virtual desktop infrastructure (VDI) and virtualized application solutions often derail projects before they get started.

By untethering the digital workspace and enabling collaboration, end-user computing is an important enabler of digital transformation. Virtual desktop infrastructure (VDI) is only the first step on the path to a complete EUC environment. To make sure of user productivity, you must also accelerate the key applications and databases on which users rely, matching the efficiency of virtual desktops. However, this more comprehensive approach to EUC computing creates some significant business and technical challenges.

Addressing unpredictable user workloads in a complicated EUC environment can require painful re-architecting. Introducing new workloads might rob resources from existing workloads, leaving users unhappy. A better approach to infrastructure for EUC is needed.

NetApp HCI and End-User Computing

NetApp has the answer. NetApp® HCI is an enterprise-scale, hyper converged infrastructure (HCI) that simplifies and accelerates EUC deployments by delivering predictable performance and simplified operations on a highly flexible and efficient cloud architecture that makes sure that all virtual desktops and applications run flawlessly.

Unlike other HCI solutions, NetApp HCI allows multiple mission-critical workloads to share the same infrastructure as the virtual desktop without affecting the end-user experience. The user experience is protected with predictable performance, avoiding the painful slowdowns that are common with conventional infrastructure.

A common goal of IT organizations is to automate all routine tasks, eliminating the risk of user errors associated with manual operations. NetApp HCI streamlines installation from hours to minutes, while simple centralized management through VMware gives you control of managing NetApp HCI through tools you already use, allowing valuable resources to be focused on higher priorities that drive business growth. NetApp HCI also integrates into the Data Fabric to deliver a complete hybrid cloud data services solution.

Predictable Performance for End User Environments

A variety of things can affect the performance of end-user computing. Boot storms, login storms, concurrent use patterns, I/O storms, and poorly timed virus scans can all bring conventional systems to their knees, causing delays that affect virtual desktop users. Noisy neighbors—highly active virtual desktops or virtual machines (VMs) sharing the same storage—have a similar effect. The conventional solution is to dedicate infrastructure exclusively for virtual desktops and often to overprovision that infrastructure in hopes that negative effects can be minimized.
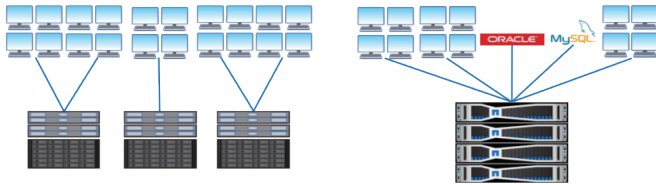
■ NetApp®

Figure 1) Moving from dedicate hardware silos to a single, consolidated platform.

NetApp HCI is ideal for EUC environments because you can allocate capacity and performance independently for every virtual desktop and every application and easily adjust the allocations as workloads shift or your needs evolve without complexity. If an application needs more performance, the initial configuration can become a bottleneck. NetApp HCI 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 NetApp HCI's predictable performance, you no longer need to dedicate costly infrastructure silos for end-user computing (EUC). Desktop VMs can run on the same NetApp HCI system as other data center workloads, eliminating silos and allowing you to use resources more efficiently. You can create a true multitenant storage solution that can host not only virtual desktops but also your application data, files, databases, CRM, messaging tools, and more, delivering predictable performance across the entire user environment.

Delivering Operational Simplicity

NetApp HCI simplifies your EUC environment with an agile, scale-out architecture that future-proofs your investments. Start small and grow as needed without disruption to your users by adding compute and storage independently. If compute is the limiting factor, just add more compute nodes. If you need more storage capacity, simply add storage nodes. New nodes integrate seamlessly, so there's never any need to rip and replace the infrastructure that's already in place to scale your environment.

NetApp HCI is built using market-leading VMware vSphere to provide the virtualization tier. In combination with VMware Horizon, the leading platform for virtual desktops and applications, NetApp HCI allows IT to simplify and automate the management of thousands of desktops. Demonstrated compatibility with VMware Horizon, App Vols, SRM, and vRealize Orchestrator makes sure that that NetApp HCI operates as a full partner in VMware environments.

NetApp Data Fabric Integration

An EUC environment isn't much use if it doesn't integrate easily with other important elements of your IT environment. You need to be able to manage and protect data and integrate with other important applications and services in your environment.
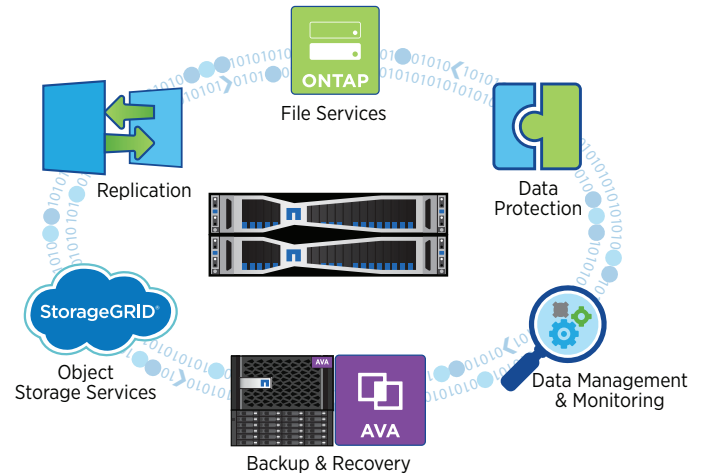

Figure 2) The NetApp Data Fabric with NetApp HCI.

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 EUC environment has easy access to advanced data services as needed.

HCI at Enterprise Scale

NetApp HCI delivers benefits other HCI solutions simply can't match. Now you can run virtual desktops and other user applications side by side with guaranteed performance. Confidently deploy HCI across your entire data center and unleash the true power of your infrastructure by simplifying management and independently scaling both compute and storage resources.

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