



Solution Brief

NetApp HCI for Private Cloud with Red Hat

Key Benefits

Simplify: Provide a frictionless, cloudlike consumption experience

- Enable on-demand provisioning for virtualized and bare-metal resources.
- Provide a self-service environment.

Automate: Eliminate constraints and command performance

- Configures and installs services in an automated and highly available deployment.
- Preview deployments before they go live, and anticipate potential deployment or upgrade issues

Deliver: From idea to deployment in record time

- Support multitenancy with the precise capacity and performance needed
- Dynamically scale resources to meet business demands

The benefits that an on-premises private cloud can bring to an enterprise—automation, simplicity, agility—are becoming well known. However, end users want the speed, flexibility, and access to the on-demand self-service of public cloud. And it's a challenge to match this responsiveness using internal resources that were not designed to deliver those types of on-demand services.

Many enterprises once thought that public cloud was the solution to these challenges. But IT teams quickly learned that despite agility and easy consumption, public cloud is not the answer for every workload. Enterprise IT teams today are striking a smarter balance between on-premises workloads—running on a private cloud—and workloads in the public cloud. The success of this hybrid cloud approach requires a private cloud that can deliver agility, self-service, and full control over performance and availability costing less than public cloud.

Build an Open, Private Cloud with NetApp HCI and Red Hat

NetApp® is introducing a solution for rapidly and reliably deploying a private cloud, using open-source technologies from Red Hat® and an enterprise-scale hybrid cloud infrastructure from NetApp. The solution provides a unified private cloud foundation for containers and virtual machines that enables you to reduce infrastructure complexity, deliver resources on demand, and enable cloud-native application development on premises

NetApp® HCI's delivers the best foundation for a private cloud by providing multitenancy at extreme scale, guaranteed performance for every application, and dynamic scaling to satisfy business demands. When combined with technologies from Red Hat, such as Red Hat® OpenShift Container Platform, Red Hat® OpenStack® Platform and Red Hat® Ansible®, the complete scope of a private cloud is enabled, including development and deployment of applications through virtual traditional or cloud-native methods, single point of management, orchestration, and monitoring.

Simplify and automate: provide a frictionless, cloudlike consumption experience by eliminating constraints and commanding performance

To deliver on the self-service needs of cloud users, common provisioning and management tasks need to be automated so they can be performed without your IT team having to get involved. Automating tasks and allowing users to initiate them directly is essential for delivering a public-cloud experience from your private cloud.

With the NetApp HCI and Red Hat solution you can:

- Enable on-demand provisioning for virtualized and bare-metal resources
- Provide a self-service environment for provisioning, building, and deploying container applications and their components through the Red Hat OpenShift Container Platform
- Support thousands of applications, clients, and tenants with the precise capacity and performance that each one requires

- Dynamically scale or repurpose performance and capacity resources to meet business demands
- Use Red Hat Ansible integration to preview deployments before they go live, and anticipate potential deployment or upgrade issues
- Configures and installs and NetApp HCI, OpenStack and OpenShift services in an automated and a highly available deployment
- Easily replicate and protect all your data from NetApp HCI to multiclouds, such as AWS, Microsoft, and Google

Deliver: use trusted NetApp and Red Hat technologies

NetApp has collaborated and innovated with Red Hat for more than 15 years. Through a long relationship, NetApp and Red Hat have developed a strong technical and go-to-market alliance focused on providing innovative solutions that help our joint customers modernize, transform their IT infrastructure, and grow their business.

The NetApp Verified Architecture is built on proven NetApp and Red Hat technologies:

- [NetApp HCI](#) lets enterprise clouds deliver infrastructure and platform services with simplicity, dynamic scale, and operational efficiency economics equivalent to public clouds.
- [Red Hat OpenStack Platform](#) is a cloud computing platform that virtualizes resources from industry-standard hardware, organizes those resources into clouds, and manages them so users can access what they need—when they need it.
- [Trident](#) is a NetApp open-source project that enables micro-services and containerized applications to use enterprise-class storage services (such as QoS, storage efficiencies, and cloning) to meet their persistent storage demands.

- [Red Hat OpenShift Container Platform](#) (optional) unites developers and IT operations on a single platform to build, deploy, and manage applications consistently across on-premises and hybrid cloud infrastructures.
- [Red Hat Ansible](#) is an open-source tool for IT configuration management, deployment, and orchestration. Ansible performs automation and orchestration of IT environments through Playbooks—prescriptive, yet responsive descriptions of how to perform an operation.

For More Information

Visit our [solutions page on NetApp.com](#).

Download the [NetApp Verified Architecture](#).

Talk to your NetApp account manager.

About Red Hat

Red Hat is the world's leading provider of open source, enterprise IT solutions. Through a predictable, affordable subscription model, Red Hat customers get reliable, high-performance cloud, Linux, management, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. For more information, visit www.redhat.com.

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