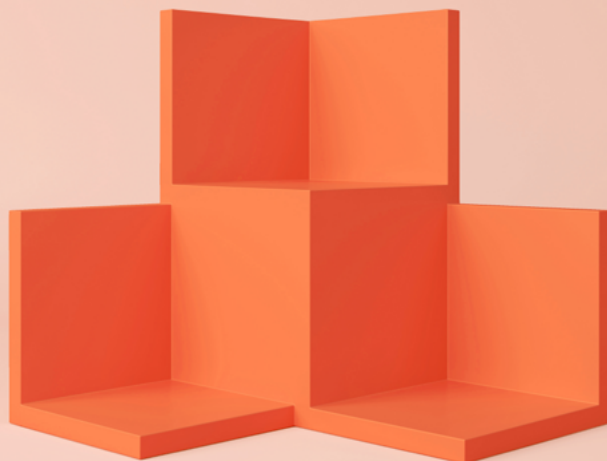# NetApp and Red Hat Hybrid Cloud Solutions: Agility, flexibility, portability

■ NetApp

The benefits that on-premises infrastructure can bring to an enterprise—automation, simplicity, agility—are 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 and agility 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 and work seamlessly across the entire infrastructure..

Build a Hybrid Cloud with NetApp and Red Hat
NetApp's hybrid cloud solutions can rapidly and reliably deploy, using open-source technologies from Red Hat®. The solution provides a unified on-premises 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® solutions deliver the best foundation for a hybrid cloud infrastructure 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® Automation Platform, the complete scope of a hybrd cloud is enabled, including development and deployment of applications through virtual, traditional or cloud-native methods, with a 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

Key benefits

Simplify: Provide a frictionless, hybrid cloud 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.

IT team having to get involved. Automating tasks and allowing users to initiate them directly is essential for delivering a unifed hybrid cloud experience.

With the NetApp 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 NetApp, OpenStack and OpenShift services in an automated and a highly available deployment.
- Easily replicate and protect all your data from NetApp to multiclouds, such as AWS, Microsoft Azure, Google and IBM Cloud.

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 Hybrid Cloud solutions let enterprise clouds deliver infrastructure and platform services with simplicity, dynamic scale, and operational efficiency economics equivalent to public clouds.

- 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.

- 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 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.

- Red Hat Ansible Automation Platform 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. Talk to your NetApp account manager.

About RedHat

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

In a world full of generalists, NetApp is a specialist. We're focused on one thing, helping your business get the most out of your data. NetApp brings the enterprise-grade data services you rely on into the cloud, and the simple flexibility of cloud into the data center. Our industry-leading solutions work across diverse customer environments and the world's biggest public clouds.

As a cloud-led, data-centric software company, only NetApp can help build your unique data fabric, simplify and connect your cloud, and securely deliver the right data, services and applications to the right people—anytime, anywhere. www.netapp.com

∏ NetApp