ACCELERATE CONTAINER APPLICATION DELIVERY WITH RED HAT AND HPE

DATASHEET

INTRODUCTION

In today's digital world, organizations are under increasing pressure to deliver applications faster while reducing costs. As these applications grow more complex, stress increases on infrastructure and IT teams. To remain competitive, organizations must adapt quickly and give developers the tools to be more effective and agile. As the demand for greater speed and efficiency grows, many enterprises find containers compelling, but worry that they will be too costly and complex to deploy and manage.

Container application platforms combine agile development methods, cloud technologies, and coordinated processes to help organizations become more responsive across multiple IT environments. They provide prebuilt and packaged developer tools, runtimes, and automation for faster feedback and implementation cycles. Developers can focus on rapid, high-quality development, using familiar tools, while production teams can concentrate on quickly delivering new services and products to market.

Red Hat® OpenShift Container Platform on Hewlett Packard Enterprise (HPE) Synergy Composable Infrastructure offers a fully integrated container solution that is ideal for enterprise deployments. With a validated deployment architecture, this solution helps IT rapidly deploy, provision, and operate container applications at scale. In a dense landscape of deployment possibilities, Red Hat OpenShift Container Platform on HPE Synergy Composable Infrastructure architecture provides an optimized end-to-end solution to accelerate container application delivery.

RED HAT AND HEWLETT PACKARD ENTERPRISE

Red Hat and Hewlett Packard Enterprise (HPE) work together to provide market-leading, industry-standard alternatives to proprietary operating environments. Red Hat and HPE jointly engineered solutions are uniquely open source and modular and deliver cost-efficiency and flexibility.

Building on a Red Hat and HPE open platform drives massive cost savings and promotes application development and deployment agility without compromising security, performance, or scalability.

Together, Red Hat and HPE deliver:

- A container application platform and container infrastructure that can be tailored instantly, on-demand to meet business needs.

- A comprehensive stack of physical and virtual application development and deployment infrastructure.

- A unique blend of open technology, price and performance efficiency, and enterprise credibility.

- An ongoing manageable and predictable software cost model.

SOLUTION ARCHITECTURE

Built on bare-metal HPE Synergy Composable Infrastructure, this jointly engineered container solution extends continuous delivery and deployment to on-premise infrastructure. With Red Hat OpenShift and HPE Synergy, you can compose and reconfigure your container environment. The solution is optimized for continuous integration and continuous delivery (CI/CD) by Red Hat OpenShift Container Platform, and for running cloud-native microservices applications alongside existing traditional and stateful applications.
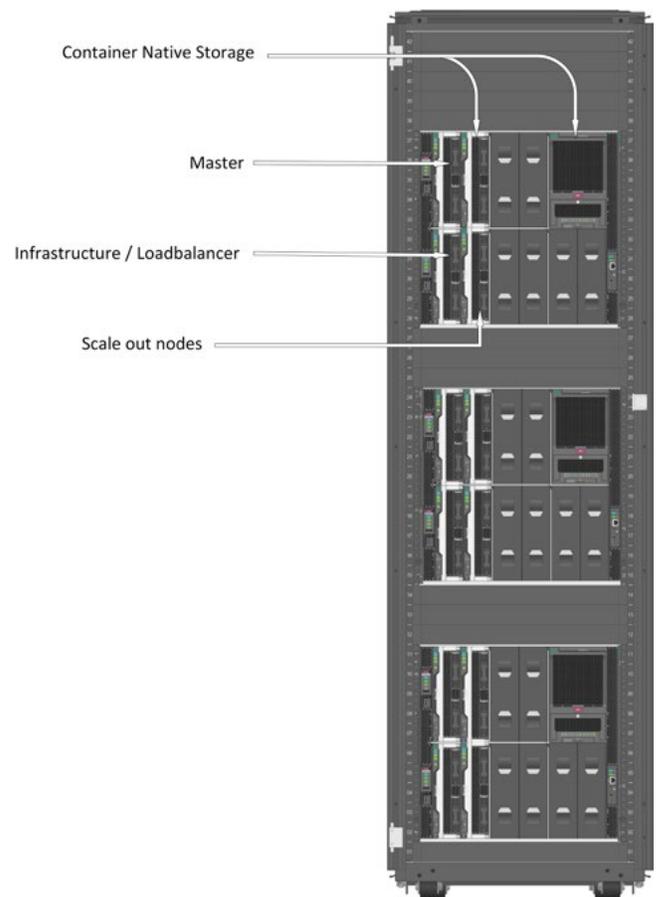
Red Hat Ansible® Tower and HPE Synergy Composer with built in OneView automate the solution deployment in a highly available environment, so organizations can take advantage of container benefits sooner and with less risk. Validated, integrated components, combined with expert services and support, help you build an agile, scalable, enterprise-grade OpenShift platform that can be easily tailored to your business needs. HPE and Red Hat verify this solution to be stable, reliable, secure, and interoperable, so that enterprises can deploy with confidence and flexibility. Through documented designs, deployment guidelines, automation scripts, and purpose-engineered configurations, this solution incorporates these elements into a unified architecture framework.

RED HAT OPENSHIFT CONTAINER PLATFORM

Red Hat OpenShift Container Platform offers a fully integrated container application platform that lets organizations develop, deploy, and manage existing and container-based applications seamlessly across physical, virtual, and public cloud infrastructures. Built on proven open source technologies, OpenShift Container Platform helps application development and IT operations teams modernize applications, deliver new services, and accelerate development processes.

RED HAT ANSIBLE TOWER

Red Hat Ansible Tower provides a centralized application programming interface (API) for Ansible automation that offers users a visual dashboard, role-based access control, job

Container Native Storage

Master

Infrastructure / Loadbalancer

Scale out nodes

scheduling, graphical inventory management, and real-time job status updates. Ansible Tower builds on the underlying Ansible automation engine by adding control, access, security, auditing, and delegation capabilities required in the enterprise.

RED HAT CLOUDFORMS

Red Hat CloudForms delivers the insight, control, and automation that enterprises need to address the challenges of managing virtual and containerized environments. This technology enables enterprises to build and operate new environments and improve visibility and control of existing environments.

RED HAT GLUSTER STORAGE

Red Hat Gluster Storage offers an open, software-defined, scale-out storage platform to easily manage unstructured data for physical, virtual, cloud, and container-based environments. This solution combines both file and object storage with a scale-out architecture designed to cost-effectively store and manage petabyte-scale data growth.

RED HAT SATELLITE

Red Hat Satellite is a system management tool that allows users to provision, configure, and update systems to keep them running efficiently, securely, and in compliance with various standards. By automating most system maintenance tasks, Red Hat Satellite helps organizations increase efficiency, reduce operational costs, and better respond to strategic business needs.

HPE SYNERGY

HPE Synergy, the first platform built from the ground up for Composable Infrastructure, empowers IT to create and deliver new value instantly and continuously. This single infrastructure reduces operational complexity for traditional workloads and increases operational velocity for the new breed of applications and services. Through a single interface, HPE Synergy composes compute, storage, and fabric pools into any configuration for any application.

HPE SYNERGY COMPOSER

HPE Synergy Frames contain a management appliance called the HPE Synergy Composer. The unique design of HPE Synergy Frames physically embeds HPE Synergy Composer, powered by HPE OneView, to compose compute, storage, and fabric resources in any configuration. HPE Synergy Composer provides the enterprise-level management to compose and deploy system resources to your application needs. This management appliance uses software-defined intelligence to aggregate compute, storage, and fabric resources in a manner that scales to your application needs, instead of being restricted to the fixed ratios of traditional resource offerings. The deployment of Red Hat OpenShift Container Platform is greatly simplified through the use of Red Hat Ansible Tower and HPE Ansible Modules for HPE OneView.

HPE SYNERGY IMAGE STREAMER

HPE Synergy Image Streamer provides a rapid new approach to deployment and updates for composable infrastructure. This management appliance works with HPE Synergy Composer for fast, software-defined control over physical compute modules with operating system and application provisioning. HPE Synergy Image Streamer enables stateless computing combined with the capability for image life-cycle management. This management appliance rapidly deploys and updates infrastructure. Through the use of golden images and automation, many manual repetitive preparation and configuration tasks are eliminated resulting in a single click deployment that reduces the end-to-end deployment time to hours instead of days.
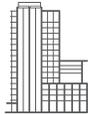
ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to provide reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.

NORTH AMERICA
1 888 REDHAT1

EUROPE, MIDDLE EAST,
AND AFRICA
00800 7334 2835
europe@redhat.com

ASIA PACIFIC
+65 6490 4200
apac@redhat.com

LATIN AMERICA
+54 11 4329 7300
info-latam@redhat.com

facebook.com/redhatinc
@redhatnews
linkedin.com/company/red-hat

redhat.com
#f11007_0318

SOLUTION BENEFITS

By deploying OpenShift Container Platform on HPE Synergy Composable Infrastructure, organizations benefit from the performance, scalability, and reliability of a proven, enterprise-ready container architecture. Founded on industry-leading products and award-winning services,[1] Red Hat and HPE container offerings incorporate principal open source technologies and industry best practices. Deploying OpenShift Container Platform on HPE Synergy Composable Infrastructure delivers a range of advantages to the enterprise, including:

Accelerated deployment. Allows rapid Red Hat OpenShift deployment with Red Hat Ansible Tower and HPE image streamer. Automation provided by Red Hat Ansible Tower and Ansible Modules for OneView significantly reduces the deployment time. HPE Image Streamer provides consistent deployments and reduces the possibility of manually induced errors by utilizing automation and golden images.

Cost-effectiveness. Running container applications on bare metal reduces costs associated with licensing, deploying, and maintaining similar applications on a virtualized environment. This solution provides a composable infrastructure that enables enterprises to avoid costs associated with over-provisioning resources.

Rapid application delivery. Accelerates application delivery with agile and DevOps methodologies. The solution supports end-to-end DevOps processes by providing a single, consolidated environment.

Transformed IT provisioning. Improves resource utilization with automated capabilities that let organizations to do more with less.

Improved scalability. Scales out as required to meet elastic demand. This solution provides Red Hat Ansible Automation workflows that use Ansible Modules for OneView to automate the expansion and contraction of the Red Hat OpenShift Container Platform cluster as needed by changing business requirements.

Enterprise reliability. Offers enterprise-grade bare metal performance for stateful containers and provides high availability with redundant HPE Composer and HPE Image Streamer modules and critical OpenShift role distribution across each HPE Synergy Frame.

Faster time to value. Allows organizations to rapidly realize the benefits of containers with automated deployments that let organizations place systems in production faster than manual deployments.

ABOUT HEWLETT PACKARD ENTERPRISE

Hewlett Packard Enterprise is an industry-leading technology company that enables customers to go further, faster. With the industry's most comprehensive portfolio—spanning the cloud to the datacenter to workplace applications—our technology and services help customers around the world make IT more efficient, more productive, and more secure.

---

1   redhat.com/en/services/support