

Red Hat OpenStack Services on OpenShift

Product overview

Beginning with version 18.0, Red Hat® OpenStack® Platform becomes Red Hat OpenStack Services on OpenShift®. Red Hat OpenStack Services on OpenShift brings massive scale to Infrastructure-as-a-Service (IaaS), allowing virtualized and cloud-native workloads to coexist. Featuring a modernized, containerized control plane running on OpenShift, Red Hat OpenStack Services on OpenShift can provide a private cloud capable of running your existing workloads and orchestration solutions built around OpenStack application programming interfaces (APIs).

With Red Hat OpenStack Services on OpenShift, organizations can speed up the development of and simplify the deployment of both virtualized and containerized applications, providing the platform for massively scalable infrastructure across a hybrid cloud environment. This IaaS solution allows users to scale, upgrade, and add resources to their cloud computing environment. Managed and deployed through a new Red Hat OpenShift control plane, Red Hat OpenStack Services on OpenShift will let organizations manage current workloads alongside new, cloud-native applications and benefit from both IaaS-simplified infrastructure and Platform-as-a-Service (PaaS)-accelerated applications.

Table 1. Features and benefits

Feature	Benefit
Faster deployments	New integration with Ansible® means that parallelized processes are multiple times faster, speeding time to market and reducing risk.
Elastic capacity and scalability	Containerized control plane allows for flexibility and scale, many times larger than the previous virtualized control plane.
Accelerated development	Integration with Red Hat OpenShift speeds up applications development from end to end.
Unified observability	A container based telemetry operator helps collect metrics and logs, and visualizes both natively within the OpenShift console.
Unified management	Management for OpenStack and OpenShift workloads is now centralized, allowing for the management of a mixed workload environment.
Improved security and compliance	Compliance scanning of the control plane and role-based access control (RBAC) encrypts communications and memory cache for a higher default security model.

Feature	Benefit
Simplified Day 2 operations	A new architecture that uses OpenShift bare metal as the hosting infrastructure for the control plane and lifecycle tools.
Greater cost management	Centralize operations with the freedom to choose third party plug-ins and virtualize resources; defining your service catalog and maximizing usage.

The minimum [hardware requirements](#) for the Red Hat OpenShift Container Platform cluster that hosts your Red Hat OpenStack Services on OpenShift control plane are as follows:

- ▶ An operational, preprovisioned 3-node OpenShift Container Platform compact cluster, version 4.16 or later
- ▶ Each node in the compact cluster must have the following resources:
 - ▶ 64 GB RAM
 - ▶ 16 CPU cores
 - ▶ 120GB NVMe or SSD for the root disk plus 250 GB storage (NVMe or SSD is strongly recommended)
- ▶ 2 physical network interface cards (NICs)
- ▶ Persistent Volume Claim (PVC) storage on the cluster:
 - ▶ 150 GB persistent volume (PV) pool for service logs, databases, file import conversion, and metadata
 - ▶ 5 GB of the available PVs must be backed by local SSDs for control plane services such as the Galera, OVN, and RabbitMQ databases



About Red Hat

Red Hat is the world’s leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. [A trusted adviser to the Fortune 500](#), Red Hat provides [award-winning](#) support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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