Red Hat Software Certification 2024

Red Hat Software Certification Quick Start Guide

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Abstract

A catalog of all the certification resources that provides information about how to certify, deploy and manage your software products on Red Hat Enterprise Linux across on-premise, virtual, public and private cloud environments. Version 9.0 and 8.80 updated May 28, 2024.

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MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code and documentation. We are beginning with these four terms: master, slave, blacklist, and whitelist. Due to the enormity of this endeavor, these changes will be gradually implemented over upcoming releases. For more details on making our language more inclusive, see our CTO Chris Wright's message.

CHAPTER 1. INTRODUCTION TO RED HAT SOFTWARE CERTIFICATION

The Red Hat Software certification program ensures compatibility of your software products on Red Hat platforms. Building and certifying your products on Red Hat platforms ensures that your solutions are consistent, interoperable, and supported.

Red Hat certifications give you confidence on your deployments, and that lets you focus on delivering valuable and transformative technology to your customers.

The key benefits of the Red Hat Software certification program are:

- Build once and deploy across bare-metal, virtualized, and public and private cloud infrastructure.
- Take advantage of Red Hat expertise with emerging technologies, so you can make time for innovation while managing risk.
- Build trust and customer confidence by offering collaborative support with Red Hat and TSANet.
- Generate market awareness and customer demand through placement and promotion on the Red Hat Ecosystem Catalog.

Use the following table to find the required software certifications available on your Red Hat platform:

Table 1.1. Red Hat Software Certification Matrix

Certification Platforms	Application and Workloads	Infrastructure and Automation
Red Hat Enterprise Linux Platform	• Containers • RPMs • Others	Not applicable
Red Hat OpenShift Container Platform	• Operators • Helm Charts • Containers • CNF	• CNI • CSI
Red Hat Ansible Automation Platform	Not applicable	• Ansible Collection Policy • Ansible Collection Workflow

Certification Platforms	Application and Workloads	Infrastructure and Automation
Red Hat OpenStack Platform	• Containers • NFV • VNF	• Cinder • Manila • Neutron

CHAPTER 2. RED HAT OPENSHIFT CERTIFICATION

The Red Hat OpenShift certification program helps partners to verify if their products meet Red Hat standards of interoperability, security and life cycle management when deployed on the Red Hat OpenShift platform.

2.1. RED HAT CONTAINER STORAGE INTERFACE CERTIFICATION

The Container Storage Interface (CSI) certification is a specialization within Red Hat OpenShift certification available to storage products that integrate with OpenShift using a CSI driver.

To explore more about CSI certifications, see:

- Container storage interface (CSI)
- Certification workflow
- Certified cloud-native network functions for OpenShift

Additional resources

- Managing Container Storage interface
- Using Container Storage interface

2.2. RED HAT CONTAINER NETWORK INTERFACE CERTIFICATION

The Container Network Interface (CNI) certification is a specialization within Red Hat OpenShift certification available to networking products that integrate with OpenShift using a CNI plug-in.

To explore more about CNI certifications, see:

- Container Network Interface (CNI)
- Certification workflow
- Certified cloud-native network functions for OpenShift

Additional resources

- Certified OpenShift CNI Plug-ins
- CNI specification

2.3. RED HAT CLOUD-NATIVE NETWORK FUNCTIONS

Cloud-native network functions (CNF) and Virtual network functions (VNF) are network functions designed and implemented to run inside containers. Building on the Red Hat Operator Certification, the CNF certification extends the collaboration between Red Hat and its partners to apply best practices specific to telecommunication deployments.

To explore more about CNF certifications, see:

- CNF and VNF certifications

- Certification workflow
- Certified cloud-native network functions for OpenShift

Additional resources

- About cloud-native network functions
- Building CNF applications with OpenShift Pipelines

2.4. RED HAT OPENSHIFT OPERATOR CERTIFICATION

The Red Hat OpenShift Operator certification program helps partners to certify their Operators for use on Red Hat OpenShift. With Red Hat OpenShift Certified Operators, customers can benefit from validated, well-integrated, mature and supported Operators from Red Hat or partner ISVs in their hybrid cloud environments.

To learn more about Operators, see:

- What are Operators?
- Certified OpenShift operators
- Requirements for container images
- Requirements for operator
- Requirements for Operand

To get started with Red Hat OpenShift Operator certification, see

- Working with Containers
- Working with Operators

2.5. RED HAT OPENSHIFT CERTIFICATION FOR HELM CHARTS

Helm is a Kubernetes-native automation technology and software package manager that simplifies deployment of applications and services. The Red Hat OpenShift certification program for helm charts provides an easy way to automate deployment of applications or infrastructure software in a Kubernetes cluster.

To explore more about Helm charts, see

- What is Helm?
- Application automation with Kubernetes
- Helm Chart certification workflow
- Building a Helm Operator

2.6. RED HAT OPENSHIFT CONTAINER CERTIFICATION

The Red Hat OpenShift container certification program provides a vast ecosystem to help you build and

deploy your containerized software on the cloud. The Universal Base Image (UBI) of Red Hat provides a solid and stable RHEL userspace to streamline efforts as you expand into container development projects.

- For an overview on container certification, see Red Hat Container certification .
- For more information on container image requirements, see Requirements for container images.
- To get started with Container certification, see Working with Containers.

CHAPTER 3. RED HAT OPENSTACK CERTIFICATION

The Red Hat OpenStack Platform (RHOSP) gives you the features and functions to construct a scalable, flexible cloud environment based on proven, integrated technologies from the core to the edge and beyond.

3.1. PREREQUISITES

Before starting the certification, please ensure you have met the prerequisites highlighted in the Red Hat OpenStack Certification - Red Hat Partner Connect General Guide.

3.2. CINDER

The Red Hat Block Storage service (cinder) manages the administration, security, scheduling, and overall management of all volumes.

- To learn more about the cinder test and the subtests, see Cinder test.
- For detailed procedure on how to perform this certification, see certification workflow.
- To know more about the configuration options in the cinder service, see cinder.

3.3. MANILA

The Red Hat OpenStack Shared File Systems service (manila) enables users to provision shared file systems that can be consumed by multiple compute instances.

- To learn more about the manila test and the subtests,see manila test.
- For detailed procedure on how to perform this certification, see certification workflow.
- To know more about the configuration options in the manila service, see manila.

3.4. NEUTRON

The Red Hat OpenStack networking Service (neutron) helps in OpenStack networking-component feature testing, which includes basic and operational functional testing using the Tempest Framework that is integrated in the RHOSP. Neutron includes networking, IP address management (IPAM), and router support to enable routing between internal and external networks.

- To learn more about the neutron test and the subtests, see neutron test.
- For detailed procedure on how to perform this certification, see certification workflow.
- To know more about the configuration options in the neutron service, see neutron.

3.5. RED HAT VIRTUALIZED NETWORK FUNCTION CERTIFICATION

The Red Hat OpenStack Application certification is intended for Partners who want to certify their system using an Openstack application like Virtual Network Function (VNF), Network Functions Virtualization (NFV), Management and Orchestration (MANO) and those applications which run on RHOSP environment.

- To learn about VNF certification tests, see Certification tests.

- For detailed procedure on how to perform this certification, see certification workflow.

3.6. RED HAT NETWORK FUNCTIONS VIRTUALIZATION CERTIFICATION

The Network Functions Virtualization certification provides new testing on Red Hat OpenStack platform to ensure compatibility and supportability, to reduce risks and increase efficiency of the solutions created by a vibrant partner ecosystem.

- To learn about NFV certifications, see What is NFV?
- For detailed information on NFV, see Configuring network functions virtualization .

3.7. RED HAT OPENSTACK PLUG-IN CERTIFICATION

The Red Hat OpenStack platform provides plug-in certification for containers. Certified containers must meet Red Hat standards for packaging, distribution, and maintenance. Containers certified by Red Hat have a high level of trust and supportability from container-capable platforms, including the Red Hat OpenStack Platform.

- To get started with OpenStack plug-in certification, see Creating a new certification or recertification project.
- To know more about the plug-in certification test, see Trusted Container test.
- To know when a customized container image is required, see Red Hat OpenStack Certification - Red Hat Partner Connect General Guide.
- To know about the drivers and plug-ins supported by Red Hat on OpenStack platform, see Component, Plug-In, and Driver Support in Red Hat OpenStack Platform .

CHAPTER 4. RED HAT ENTERPRISE LINUX SOFTWARE CERTIFICATION

Red Hat Enterprise Linux (RHEL) Software certification program provides best of class performance for your applications on a more secure and stable platform, allowing you to identify, analyze and fine tune your workload performance while you are building applications.

The customers can benefit from a trusted application and infrastructure stack, tested and jointly supported by Red Hat and the Partners.

4.1. RED HAT ENTERPRISE LINUX SOFTWARE CERTIFICATION FOR CONTAINERIZED PRODUCTS

The Red Hat Enterprise Linux Software certification program for containerized products helps you to build, certify, and distribute your cloud-native products on Red Hat Enterprise Linux and the scalable container platform of Red Hat OpenShift.

- For an overview about container certification, see Red Hat Container certification .
- For more information about container image requirements, see Requirements for container images.
- To get started with container certification, see Working with Containers.

4.2. RED HAT ENTERPRISE LINUX SOFTWARE CERTIFICATION FOR NON-CONTAINERIZED PRODUCTS

The Red Hat Enterprise Linux Software certification program for traditional, non-containerized software products helps Independent Software Vendors (ISV) to verify the deployment and operation of their application software on systems and server environments running RHEL.

- To know about the certification requirements, see Program Prerequisites.
- To get started with the certification process, see Onboarding certification partners.
- For a detailed procedure about performing the certification process, see Certification workflow.

4.2.1. Red Hat Enterprise Linux Software certification for RPM based products

The Red Hat Enterprise Linux Software certification program for RPM based products helps Independent Software Vendors (ISVs) to build, certify and distribute their application software packaged as RPMs for use on systems and server environments running RHEL. ISVs can use a **yum** repository to distribute their application software packaged as RPMs.

- To get started with RHEL software certification for ISVs, see Onboarding certification partners.
- To know the requirements for running the certification tests, see Testing requirements.
- For a detailed procedure about performing the certification process, see Certification workflow.

4.2.2. Red Hat Enterprise Linux Software certification for other packaging formats

The Red Hat Enterprise Linux Software certification program for other packaging formats helps

Independent Software Vendors (ISV) to verify the deployment and operation of their application software on systems and server environments running RHEL,in a way such that it does not impact their customer's Red Hat support, security and life-cycle management.

This software certification is provided for those ISVs who choose to use a packaging/distribution method for their software product not formally supported by Red Hat.

- To get started with RHEL software certification for ISVs, see Onboarding certification partners.
- To know the requirements for running the certification tests, see Testing requirements.
- For a detailed procedure about performing the certification process, see Certification workflow.

For certain instances, Red Hat requires a packaging or distribution method to obtain Red Hat Software certification.