# Red Hat Certified Specialist in MultiCluster Management exam

### Course code: EX480

The Red Hat Certified Specialist in MultiCluster Management exam (EX480) tests the knowledge, skills, and ability to plan, deploy and manage Red Hat Advanced Cluster Management for Kubernetes and Red Hat Advance Cluster Security for Kubernetes in a multi cluster environment. By passing this exam, you become a Red Hat Certified Specialist in MultiCluster Management that also counts towards earning a Red Hat Certified Architect (RHCA®). Objectives listed for this exam are based on the most recent Red Hat product version available.

### Who is the exam for

- Site reliability engineers (SREs), cluster engineers, systems administrators, cloud administrators, or cloud engineers focused on planning, designing, and implementing production-grade OpenShift clusters in a multi-cluster environment and at the same time ensuring these clusters remain in compliance with corporate standards.
- Site reliability engineers (SREs), cluster engineers, systems administrators, cloud administrators, or cloud engineers working in a multi cluster environment who need to ensure that clusters are secure.

### **Required skills**

- Red Hat OpenShift Administration II: Operating a Production Kubernetes Cluster (D0280) or equivalent experience
- Red Hat OpenShift Administration III: Scaling Kubernetes Deployments in the Enterprise (D0380) or equivalent experience
- Multicluster Management with Red Hat OpenShift Platform Plus (D0480) or equivalent experience

### Study points for the exam

Manage and deploy Red Hat Advanced Cluster Management (RHACM) for Kubernetes

- Understand how RHACM components work
- Deploy RHACM using Red Hat OpenShift Container Platform Operator Lifecycle Management
- Install RHACM agents in a managed cluster
- Use RHACM from the web terminal or the command line interface

Work with multiple OpenShift Container Platform clusters

- Import a cluster
- Remove an existing cluster

Configure access control for multi cluster management

- Be able to configure objects related to access control in a fleet cluster such as roles, cluster sets, cluster selectors and placement rules
- Understand how to use the multi cluster management dashboard search engine
- Create and manage role based access controls (RBAC)
- Manipulate policies for group and users
- Manipulate cluster sets

Deploy and manage policies for multiple clusters

- Understand governance architecture and related components
- Manipulate RHACM policies and related components
- Configure and use the Compliance Operator for multiple clusters
- Understand how Compliance Operator policy cluster resource definitions works and be able to manipulate them

Manage the RHACM observability service

- Understand the RHACM observability architecture
- Enable the observability service
- Manage the observability service
- Customize the observability service

Manage multi cluster application resources

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- Be able to work with Git from the CLI
- Organize Git repositories to support GitOps
- Manipulate applications using Git repositories
- Use the application console to manage manipulate applications

Use Kustomize to manage resources

- Understand how to manage templates
- Manage apps using Kustomize
- Deploy and Configure Red Hat Quay
- Understand the Red Hat Quay architecture and components
- Configure the Quay Operator and related objects
- Understand the Red Hat Quay tenancy model
- Use Podman and Skopeo to manipulate images in repositories

Integrate RHACM with OpenShift pipelines and GitOps

- Understand RHACM application policies
- Understand pipeline operators
- Deploy OpenShift GitOps in a hub cluster
- Integrate CI/CD pipeline with RHACM

Install and Configure Red Hat Advanced Cluster Security (RHCAS)

- Understand the security considerations in Kubernetes multi cluster environments
- Understand the RHACS architecture
- Manage advanced cluster security
- Customize advanced cluster security settings

Import managed clusters into RHACS

- Import a secured clusters to RHACS
- Explore the RHACS by web console or cli
- Use Helm to deploy applications
- Understand how to manipulate images with podman
- Know how to configure external registry
- Perform multi cluster vulnerability management with RHACS
  - Scan and detect vulnerabilities using RHACS web console
  - Create RHACS policy to prevent deployment of vulnerable images

Manage multi cluster configuration with RHACS

- Identify configuration management issues affecting a deployment
- Verify that configurations issue are resolved

As with all Red Hat performance-based exams, configurations must persist after reboot without intervention.

### What you need to know

### Preparation

Red Hat encourages you to consider taking Multicluster Management with Red Hat OpenShift Platform Plus (DO480) to

help prepare for this exam. Attendance in these classes is not required; students can choose to take just the exam. While attending Red Hat classes can be an important part of your preparation, attending class does not guarantee

success on the exam. Previous experience, practice, and native aptitude are also important determinants of success. Many books and other resources on system administration for Red Hat products are available. Red Hat does not

endorse any of these materials as preparation guides for exams. Nevertheless, you may find additional reading helpful

to deepen your understanding.

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### Exam format

This exam consists of a single section lasting three hours. The exam is a performance based evaluation of candidates' abilities to implement RHACM and RHACS in a multi cluster environment. Candidates perform a number of routine tasks similar to those they would be expected to perform in a large-scale, multi cluster OpenShift Container Platform environment and are evaluated on whether those tasks meet specific objective criteria.

### Scores and reporting

Official scores for exams come exclusively from Red Hat Certification Central. Red Hat does not authorize examiners or training partners to report results to candidates directly. Scores on the exam are usually reported within 3 U.S. business days.

Exam results are reported as section scores. Red Hat does not report performance on individual items, nor will it provide additional information upon request.

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