



RED HAT TRAINING

Multicluster Red Hat OpenShift Platform Course

Master multicluster Red Hat OpenShift. Learn to deploy and manage scalable applications across distributed environments.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

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- Globally Recognized Certification
 - Expert-Led Hands-On Training
 - Flexible Scheduling

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COURSE OVERVIEW

This "Multicluster Red Hat OpenShift Platform Course" is meticulously designed for IT professionals aiming to master the complexities of deploying and managing containerized applications across diverse Red Hat OpenShift clusters. In today's dynamic hybrid and multi-cloud landscapes, the capability to orchestrate workloads seamlessly across various on-premise, public cloud, and edge environments is not just beneficial, but essential. This course provides an in-depth exploration of Red Hat Advanced Cluster Management (ACM) for Kubernetes, equipping you with the expertise to establish a unified control plane, ensure consistent policy enforcement, and streamline application lifecycle management across your entire OpenShift estate. You will gain proficiency in managing configuration drift, implementing centralized observability, and executing robust disaster recovery strategies. Participants will engage in hands-on labs, focusing on practical skills such as cluster provisioning, global application deployment, and comprehensive governance across multiple OpenShift instances.

By completing this program, you will significantly enhance your organization's operational efficiency, fortify application resilience, and accelerate innovation by providing a scalable, consistent platform for development and operations teams. This specialized training empowers you to architect, deploy, and manage highly available, fault-tolerant containerized applications at enterprise scale, positioning you as a crucial asset in any organization leveraging advanced container orchestration. The skills acquired are directly applicable to optimizing resource utilization, ensuring compliance, and providing a cohesive management experience across distributed OpenShift environments.

Duration	2 hours
Level	Intermediate
Vendor	Red Hat

COURSE CURRICULUM

01 Module 1: Introduction to Multicluster OpenShift and ACM

- Challenges of single-cluster vs. multicluster OpenShift environments
- Overview of Red Hat Advanced Cluster Management for Kubernetes (ACM)
- Core components and architecture of ACM (Hub and Managed Clusters)
- Key use cases and benefits of multicluster OpenShift deployments

02 Module 2: Deploying and Managing Managed Clusters with ACM

- Onboarding and attaching existing OpenShift clusters to the ACM Hub
- Provisioning new OpenShift clusters using ACM (Hub-managed cluster creation)
- Cluster lifecycle management tasks: upgrades, scaling, and deletion via ACM
- Organizing and grouping clusters using labels for targeted management and policy application

03 Module 3: Global Application Deployment and Management

- Implementing multicluster application deployment strategies using GitOps (ArgoCD integration)
- Understanding PlacementRules and Subscriptions for distributing applications across clusters
- Managing application updates, rollbacks, and synchronized deployments across multiple clusters
- Introduction to service mesh concepts (e.g., OpenShift Service Mesh) for inter-cluster communication

04 Module 4: Policy Enforcement and Configuration Governance

- Implementing security policies and compliance checks across all managed clusters
- Detecting and remediating configuration drift with ACM policies
- Customizing and extending ACM policies for specific organizational requirements

- Managing Role-Based Access Control (RBAC) in a multicuster context for centralized access governance

05 Module 5: Multicuster Observability, Backup, and Disaster Recovery

- Centralized monitoring and logging with OpenShift Logging and Monitoring across clusters
- Analyzing multicuster metrics and events for performance and health insights
- Implementing Velero for multicuster backup and restore of applications and cluster configurations
- Developing robust disaster recovery strategies for OpenShift applications spanning multiple clusters

06 Module 6: Advanced Multicuster Operations and Automation

- Integrating ACM with external automation tools and CI/CD pipelines
- Troubleshooting common issues encountered in multicuster OpenShift environments
- Best practices for managing large-scale and complex multicuster deployments
- Exploring future trends in multicuster and hybrid cloud orchestration with OpenShift

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **Senior Kubernetes Administrator specializing in distributed systems and hybrid cloud platforms**
- > **Hybrid Cloud Solutions Architect focused on designing and implementing multi-cluster container strategies**
- > **DevOps Engineer responsible for enterprise-scale, highly available OpenShift application deployments**

FREQUENTLY ASKED QUESTIONS

Q: What specific operational challenges will I be able to solve after completing this Multicuster Red Hat OpenShift Platform Course?

Upon completing this course, you will be proficient in tackling critical enterprise operational challenges such as achieving high availability and comprehensive disaster recovery for applications across geographically dispersed OpenShift clusters. You'll master how to enforce consistent security and compliance policies across your entire container fleet and streamline the deployment and management of applications in complex hybrid and multi-cloud environments. Ultimately, you will be able to minimize operational overhead and maximize application uptime through expert centralized management techniques.

Q: What are the recommended prerequisites for successfully engaging with this advanced Multicuster OpenShift course content?

This course assumes a solid foundational understanding of Red Hat OpenShift, including hands-on experience deploying applications, managing projects, and performing basic cluster administration. Familiarity with core Kubernetes concepts, containerization principles, and command-line tools is essential. While not a strict requirement, prior experience with Linux system administration and fundamental networking concepts will be highly beneficial for grasping the intricacies of multicuster networking and security topics covered in the curriculum.

Q: How does this course significantly enhance a DevOps Engineer's ability to manage applications at scale compared to focusing only on single-cluster deployments?

This course fundamentally transforms a DevOps Engineer's capabilities by extending beyond single-cluster deployments

to a holistic multicuster strategy. You'll gain expertise in implementing advanced GitOps workflows to deploy applications consistently and reliably across numerous clusters, effectively manage configuration drift, and ensure application resilience through sophisticated multi-region strategies. This empowers you to architect and automate deployments for true enterprise-grade scale, achieving higher fault tolerance, improved resource utilization, and greater agility across diverse infrastructure landscapes, which is critical for modern, distributed application architectures.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

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Take the next step in your technology career.

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