

Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229)

Category: Software Development & Programming | **Vendor:** Red Hat

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ★ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Related Exam: CS229

Course Overview

Deploying Production AWS ROSA Clusters: Creation, Configuration, and Application Integration (CS229) teaches how to configure ROSA clusters as part of pre-existing AWS environments and how to integrate ROSA with AWS services commonly used by IT operations teams, such as Amazon CloudWatch. This course also teaches how to integrate applications deployed on ROSA with AWS services in a way that cluster administrators and platform engineers retain control of credentials and roles required by applications to access AWS services instead of exposing those credentials to application developers.

About This Course

Deploying Production AWS ROSA Clusters: Creation, Configuration, and Application Integration (CS229) teaches how to configure ROSA clusters as part of pre-existing AWS environments and how to integrate ROSA with AWS services commonly used by IT operations teams, such as Amazon CloudWatch. This course also teaches how to integrate applications deployed on ROSA with AWS services in a way that cluster administrators and platform engineers retain control of credentials and roles required by applications to access AWS services instead of exposing those credentials to application developers.

Who Should Attend

- ROSA Administrators, Platform Engineers, Cloud Administrators, System Administrators and other infrastructure-related IT roles who are responsible for providing and supporting infrastructure for applications deployed on AWS
- Enterprise Architects, Site Reliability Engineers, DevOps Engineers, and other application-related IT roles who are responsible for designing infrastructure for applications deployed on AWS

Prerequisites & Entry Requirements

General Prerequisites:

- DO120 - Introduction to Red Hat OpenShift on AWS (ROSA) or equivalent experience: “I know how to create and access a public ROSA cluster.”
- AWS administration at the level of either [AWS Certified SysOps Administrator - Associate](#) or [AWS Certified Solutions Architect - Associate](#), or equivalent experience: “I know how to manage AWS infrastructure services”
- It is recommended that learners also enroll in the [Red Hat Certified OpenShift Administration certification courses](#) in addition to taking CS220 and CS221

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Create ROSA STS PrivateLink clusters
Connect PrivateLink ROSA clusters to existing VPCs and enable administrators and developers to access those clusters
Configure dedicated machine pools and node/pod autoscaling
Configure node, cluster, and audit log forwarding to Amazon CloudWatch
Configure authentication and group sync with Amazon Cognito
Integrate with external container registries such as ECR and Quay.io to deploy applications from private image repositories
Configure storage classes to enable application access to different EBS volume types
Configure storage classes and security contexts to enable application access to shared EFS storage volumes
Configure pod identity using STS/IRSA to enable application access to AWS services such as database (Aurora), integration (SQS), and object storage (S3)
Provision AWS services for applications using the AWS Controllers for Kubernetes (ACK)
Federate and query application metrics (application workload monitoring) with Amazon Managed Prometheus Service
Aggregate and query structured application logs with Amazon CloudWatch
Configure custom domains and TLS certificates for secure public access to applications

Detailed Course Outline

1 - PrivateLink Red Hat OpenShift on AWS (ROSA) Clusters

- Create a PrivateLink ROSA cluster with STS and enable developers or administrators to access the API and router endpoints of the cluster.

2 - Node and Pod Autoscaling

- Configure a ROSA cluster and a workload to dynamically scale the number of cluster nodes and application pods according to load.

3 - Integrate ROSA Clusters with Amazon Web Services

- Configure ROSA clusters to forward logs to Amazon CloudWatch for long-term storage, aggregation, and analysis, and to authenticate OpenShift users by using Amazon Cognito.

4 - Deploy Applications From External Registries

- Deploy applications on Red Hat OpenShift Service on AWS (ROSA) from private container image repositories in external centralized container image registries.

5 - Provide Amazon Storage Volumes for Applications

- Configure Amazon Elastic Block Storage (EBS) or Amazon Elastic File System (EFS) volumes that meet the cost, performance, and sharing requirements of their applications.

6 - Configure Application Access to AWS Services

- Configure applications for access to shared AWS services by using Kubernetes service accounts, and provision dedicated AWS services by using Kubernetes custom resources.

7 - OpenShift and AWS Application Observability

- Configure ROSA clusters to forward application logs to Amazon CloudWatch and application metrics to Amazon Managed Service for Prometheus.

8 - Custom Domains for ROSA Applications

- Expose applications to internet users with secure URLs by using human-readable DNS domains.

Frequently Asked Questions

Q: What delivery options are available for Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
 - Traditional Instructor-Led Classroom Training (ILT)
 - On-site delivery at your offices anywhere in United Kingdom
 - Private dedicated courses customized for your team
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Q: Which exam does this course prepare me for?

This course prepares you for the CS229 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 5-day Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229) training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229)?

Yes, we provide corporate training, dedicated training, and closed classes for Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Deploy Production AWS ROSA Clusters: Creation, Config, & App Integration (CS229) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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