

Study Plan

Origin Kubernetes Distribution Engineer (OK-ENG)



About This Course

This course provides knowledge on how to configure, troubleshoot, and manage the OKD Platform. This hands-on, lab-based course shows participants how to review the installation of a cluster, configure it, and manage it on a day-to-day basis and troubleshoot the deployment of containerized applications. You will design an OKD High Availability Cluster, then build and test it. You will use this cluster to examine more advanced topics in the administration and operation of a robust OKD cluster in the remainder of the course.



Summary



Training Duration: 32 Hours (4 Days)

Course Main Subjects

- Learn OKD cluster features, architecture, and sizing.
- Investigate OKD cluster installation methods.
- Configure storage providers and storage classes.
- OKD GitOps & CI/CD
- Scale OKD clusters.
- Manage OKD resources.



Target Audience

System Administrators, Cloud Administrators, Developers, Site Reliability Engineer.

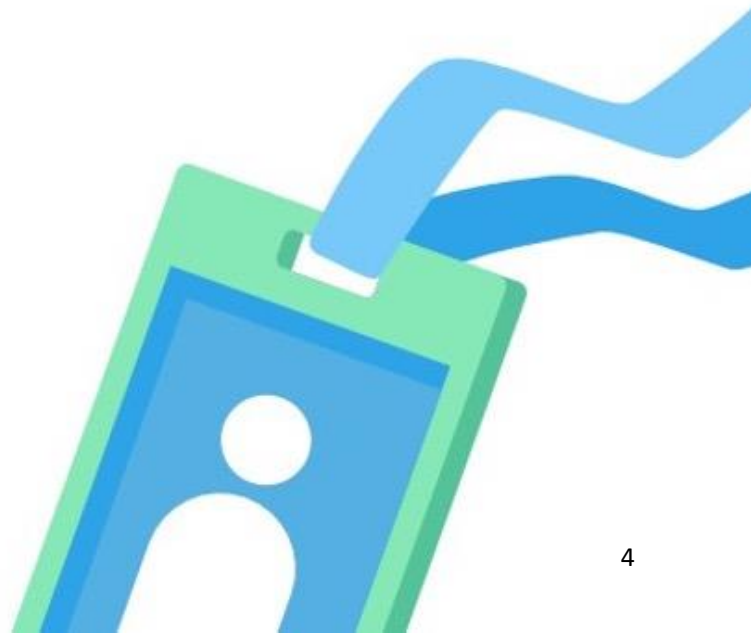
Prerequisites

- OKD Administration (OK-ADM)

Learning Output

The learning topics will assist participants in :

- Cluster Management: Participants will learn to provision, secure, and manage an OKD cluster efficiently.
- Scalability and Application Management: Participants will gain skills in scaling the cluster and managing applications, including pod scheduling and image registry management.



Requirements

Have a laptop/computer with min. specifications and installed tools:

Operating System	Windows, Linux, or MacOs
Processor	Intel Core i3
Memory	4 GB RAM
SSH Client	Termius / Putty / MobaXTerm
Text Editor	Sublime Text / VSCode
Browser	Chrome and Firefox

Facilities

- Virtual machine (available until H+5 post training)
- Class materials (Access 1 Years)
- Certificate
- Recording (VITL)

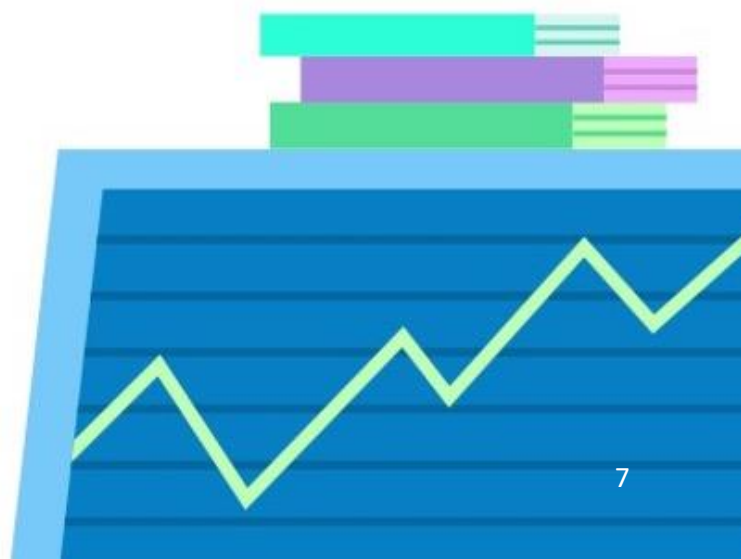
Certification

- Certificate of Course Completion
- Btech Internal Exam (optional)

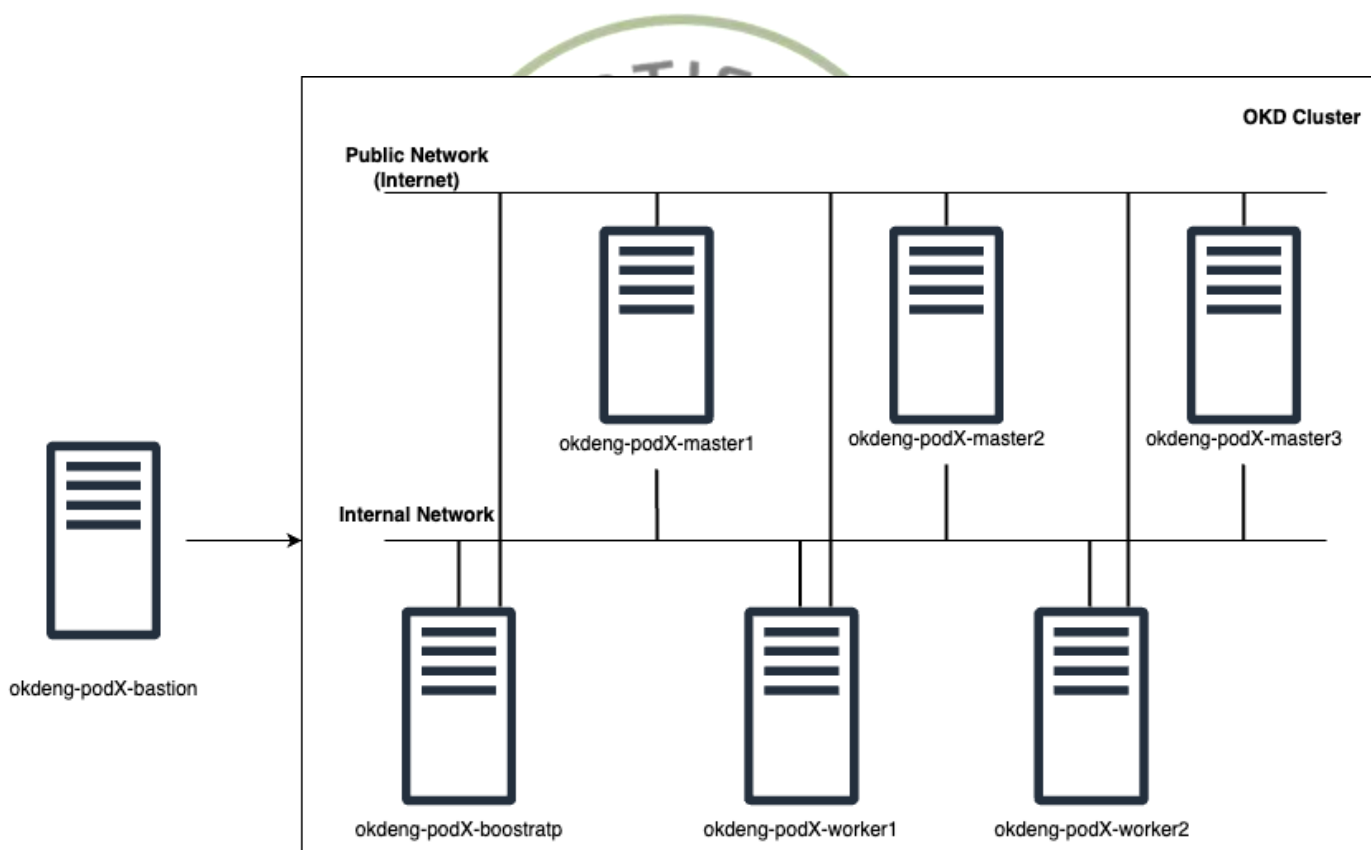


Learning Strategies

- Theory
- Study Case
- Pre-Test & Post-Test
- Quiz / Internal Exam
- Hands-on Lab



Training Topology



Learning Modules

Training Plan	
Topic	Outcome
Introduction	<ul style="list-style-type: none"> Gain a comprehensive understanding of OKD and its key features. Familiarize yourself with the concepts and principles of containerization and Kubernetes.
Provisioning OKD Cluster	<ul style="list-style-type: none"> Learn how to set up and configure an OKD cluster from scratch. Gain hands-on experience in deploying and managing OKD nodes and infrastructure.
Allocate Persistent Storage	<ul style="list-style-type: none"> Understand the importance of persistent storage in OKD environments. Learn how to allocate and manage persistent storage resources for applications running on the OKD cluster.
Securing Access to OKD Resources	<ul style="list-style-type: none"> Learn best practices for securing access to OKD resources, including user authentication and authorization. Implement access controls to ensure only authorized users can interact with the OKD cluster.
Explore OKD Networking Concepts	<ul style="list-style-type: none"> Gain a solid understanding of networking concepts and components within an OKD cluster. Learn how to configure networking for intercommunication between applications and services.

Topic	Outcome
Scaling Cluster and Applications	<ul style="list-style-type: none"> Learn techniques for scaling the OKD cluster to accommodate growing workloads. Understand how to scale individual applications within the cluster for optimal performance.
Pod Scheduling	<ul style="list-style-type: none"> Explore pod scheduling strategies and learn how to schedule pods effectively in an OKD cluster. Gain insights into resource allocation and workload balancing for efficient pod scheduling.
Managing Images and Registry	<ul style="list-style-type: none"> Learn how to manage container images and utilize container registries within the OKD cluster. Gain knowledge of image management best practices and the use of registries for application deployment.
Managing a Cluster with the Web Console	<ul style="list-style-type: none"> Gain proficiency in using the OKD web console for cluster management and administration. Learn how to perform various administrative tasks, monitor cluster health, and troubleshoot issues using the web console.
Build Applications	<ul style="list-style-type: none"> Acquire skills to build and deploy applications in OKD using containerization techniques. Gain insights into application packaging, deployment strategies, and continuous integration and delivery (CI/CD) workflows.

Topic	Outcome
Manage and Monitor OKD Resources	<ul style="list-style-type: none"> • Gain knowledge of monitoring and managing resources in an OKD cluster. • Learn to utilize monitoring tools and techniques to optimize cluster performance and ensure reliability.
GitOps	<ul style="list-style-type: none"> • Understand concept of GitOps • Can implementation GitOps to production
Continuous Integration and Deployment (CI/CD)	<ul style="list-style-type: none"> • Understand concept of CI/CD • Can management CI/CD Tools
Maintain an OKD Cluster	<ul style="list-style-type: none"> • Learn to utilize performance OKD Cluster
HA Simulation	<ul style="list-style-type: none"> • Gain knowledge of concept High Availability • Can management High Availability level cluster

Thank You

Another Course :

<https://adinusa.id/pro-training>