VMware Tanzu Kubernetes Grid Integrated Edition: Install, Configure, Manage

Course Description

This four-day, hands-on training course provides you with the knowledge, skills, and tools to install, configure, and manage VMware Tanzu™ Kubernetes Grid™ Integrated Edition (formerly known as VMware Enterprise PKS). In this course, you are introduced to the workflows of Tanzu Kubernetes Grid Integrated Edition to manage Kubernetes clusters using BOSH, and the integration of Tanzu Kubernetes Grid Integrated Edition with other VMware products.

In addition, you are presented with various types of technical problems, which you will identify, analyze, and solve through a systematic process.

Course Duration:

4 days

Prerequisites:

Before taking this course, you should have completed the following courses:

- VMware NSX-T Data Center: Install, Configure, Manage [V3.0]
- VMware vSphere: Install, Configure, Manage [V7]

You should also have the following understanding or knowledge:

- Good understanding of Kubernetes foundations and concepts

Objectives:

By the end of the course, you should be able to meet the following objectives:

- Explain how the Tanzu Kubernetes Grid integrated Edition platform enables enterprises to deploy and manage the Kubernetes platform as service on premises
- Describe the Tanzu Kubernetes Grid Integrated Edition platform architecture
- Discuss various topologies of Tanzu Kubernetes Grid Integrated Edition to be deployed to meet prerequisites before installing Tanzu Kubernetes Grid Integrated Edition
- Discuss how BOSH unifies release engineering, deployment, and life cycle management of cloud software in a Tanzu Kubernetes Grid Integrated Edition platform
- Describe how Tanzu Kubernetes Grid Integrated Edition Management Console is used to configure and deploy the Tanzu Kubernetes Grid Integrated Edition platform components
- Explain how VMware NSX-T™ Data Center integrates with Tanzu Kubernetes Grid Integrated Edition to provide networking and security services for Kubernetes clusters
- Install, manage, monitor, and troubleshoot a Tanzu Kubernetes Grid Integrated Edition Kubernetes environment
- Use Day 2 operations to create, view, scale, and delete Kubernetes clusters and upgrade Tanzu Kubernetes Grid Integrated Edition

Course Outline:

1. Course Introduction
   - Introductions and course logistics

- Course objectives

2. Introduction to Tanzu Kubernetes Grid Integrated Edition
   - Discuss Tanzu Kubernetes Grid Integrated Edition and VMware Tanzu products
   - Describe the underlying architecture and components of Tanzu Kubernetes Grid Integrated Edition
   - Explain the key features of Tanzu Kubernetes Grid Integrated Edition
   - Discuss the use case of Tanzu Kubernetes Integrated Edition

3. Tanzu Kubernetes Grid Integrated Edition Architecture
   - Describe the architecture of Tanzu Kubernetes Grid Integrated Edition
   - Describe how BOSH automates release engineering, deployment, and life cycle management of cloud software
   - Explain the role of Tanzu Kubernetes Grid Integrated Edition Management Console and the tasks that can be performed from it
   - Explain how Harbor provides an enterprise-class registry service

4. Tanzu Kubernetes Grid Integrated Edition Integration Networking with NSX-T Data Center
   - Describe how NSX-T Data Center integrates with Tanzu Kubernetes Grid Integrated Edition
   - Describe how the NSX-T Container Plug-in provides integration between NSX-T Data Center and Kubernetes
   - Discuss the supported network topologies of Tanzu Kubernetes Grid Integrated Edition

5. Managing Tanzu Kubernetes Grid Integrated Edition
   - Identify the tools used to manage Tanzu Kubernetes Grid Integrated Edition
   - Manage access to Kubernetes clusters with user management
   - Explain how static and dynamic storage is provisioned

6. Logging and Monitoring
   - Describe how VMware vRealize® Log Insight™ collects logs
   - Describe how VMware vRealize® Operations™ is used to monitor objects
   - Describe the VMware Tanzu™ Observability™ by Wavefront monitoring solution

7. Installing Tanzu Kubernetes Grid Integrated Edition
   - Describe the Tanzu Kubernetes Grid Integrated Edition and VMware vSphere® physical topology options
   - List the prerequisites for installing Tanzu Kubernetes Grid Integrated Edition
   - Discuss the deployment workflow for Tanzu Kubernetes Grid Integrated Edition
   - Deploy Tanzu Kubernetes Grid Integrated Edition Management Console, BOSH, and Harbor

8. Life Cycle Management
   - Discuss how to upgrade the Tanzu Kubernetes Grid Integrated Edition environment
   - Describe backup and restore options of Tanzu Kubernetes Grid Integrated Edition

9. Troubleshooting
   - Describe how to install the BOSH CLI and authenticate to BOSH Director
   - Explain various BOSH commands to retrieve the status of the environment
   - Describe which logs can be retrieved to troubleshoot issues
   - Explain the various nsxcli commands to retrieve the status of Tanzu Kubernetes Grid Integrated Edition

Who Should Attend

- Experienced virtual infrastructure administrators and DevOps professionals
- Developers and operators who manage and deploy applications on Kubernetes clusters