

VMware Tanzu Kubernetes Grid: Install, Configure, Manage

Course Overview

During this three-day course, you focus on installing VMware Tanzu® Kubernetes Grid™ on a VMware vSphere® environment and then provisioning and managing Tanzu Kubernetes Grid clusters. The course covers how to install Tanzu Kubernetes Grid packages for image registry, authentication, logging, ingress, multi-pod network interfaces, service discovery, and monitoring. The concepts learned in this course are transferable for users who must install Tanzu Kubernetes Grid on other supported clouds.

Course Objectives

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

- Describe how Tanzu Kubernetes Grid fits in the VMware Tanzu™ portfolio
- Describe the Tanzu Kubernetes Grid architecture
- Deploy and manage Tanzu Kubernetes Grid management clusters
- Deploy and manage Tanzu Kubernetes Grid workload clusters
- Deploy, configure, and manage Tanzu Kubernetes Grid packages
- Perform basic troubleshooting

Target Audience

Platform operators who are responsible for deploying and managing Tanzu Kubernetes clusters

Prerequisites

- Understanding of Kubernetes and the Kubernetes cluster architecture
- Experience deploying and managing multiple Kubernetes clusters

Course Delivery Options

- Classroom
- Live Online
- [Private Training](#)

Course Modules

1 Course Introduction

- Introductions and course logistics
- Course objectives

2 Introducing VMware Tanzu Kubernetes Grid

- Identify the VMware Tanzu products responsible for Kubernetes life cycle management and describe the main differences between them
- Explain the core concepts of Tanzu Kubernetes Grid, including bootstrap, Tanzu Kubernetes Grid management and workload clusters, and the role of Cluster API
- List the components of a Tanzu Kubernetes Grid instance
- Illustrate how to use the Tanzu CLI
- Identify the requirements for a bootstrap machine
- Define the Carvel Tool set
- Define Cluster API
- Identify the infrastructure providers
- List the Cluster API controllers
- Identify the Cluster API Custom Resource Definitions

3 Management Clusters

- List the requirements for deploying a management cluster
- Differentiate between deploying on vSphere 6.7 Update 3 and vSphere 7
- Describe the components of NSX Advanced Load Balancer
- Explain how Tanzu Kubernetes Grid integrates with NSX Advanced Load Balancer
- Explain how Kubernetes manages authentication
- Define Pinniped
- Define Dex
- Describe the Pinniped authentication workflow
- List the steps to install a Tanzu Kubernetes Grid management cluster
- Summarize the events of a management cluster creation
- Demonstrate how to use commands when working with management clusters

4 Tanzu Kubernetes Clusters

- List the steps to build a custom image
- Describe the available customizations
- Identify the options for deploying Tanzu Kubernetes Grid clusters
- Explain how Tanzu Kubernetes Grid clusters are created
- Discuss which VMs make up a Tanzu Kubernetes Grid cluster
- List the pods that run on a Tanzu Kubernetes cluster
- Describe the Tanzu Kubernetes Grid core add-ons that are installed on a cluster

5 Configuring and Managing Tanzu Kubernetes Grid Instances

- Define the Tanzu Kubernetes Grid packages
- Describe the Harbor Image Registry
- Define Fluent Bit
- Identify the logs that Fluent Bit collects
- Explain basic Fluent Bit configuration
- Describe the Contour ingress controller
- Demonstrate how to install Contour on a Tanzu Kubernetes Grid cluster
- Demonstrate how to install Service Discovery with ExternalDNS.
- Define Multus CNI
- Define Prometheus
- Define Grafana

6 Troubleshooting

- Discuss the various Tanzu Kubernetes Grid logs
- Identify the location of Tanzu Kubernetes Grid logs
- Explain the purpose of crash diagnostics
- Demonstrate how to use SSH to connect to a Tanzu Kubernetes Grid VM
- Describe the steps for troubleshooting a failed cluster deployment

Contact

If you have questions or need help registering for this course, click [here](#).



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