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## VMware PKS: Install, Configure, Manage Workshop

**Duration: 4 Days**    **Course Code: VMPKSICM**    **Version: 1.2**

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### Overview:

This four-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware® PKS 1.2, a purpose-built container solution to operationalize Kubernetes for multicloud enterprises and service providers. VMware PKS significantly simplifies the deployment and management of Kubernetes clusters with Day 1 and Day 2 operations support. This course prepares you to install and administer a VMware PKS environment for an organization of any size.

**This course focuses on the following products VMware PKS 1.2, VMware vSphere® 6.7 U1, VMware NSX-T Data Center 2.3**

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### Target Audience:

System administrators and engineers who need to install and administer a VMware PKS environment

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### Objectives:

- **After completing this course you should be able to:**
  - Explain how the VMware PKS platform enables enterprises to deploy and manage the Kubernetes platform as a service on premises
  - Describe the VMware PKS platform architecture
  - Describe the preinstallation activities, such as how various topologies of VMware PKS can be deployed and how to meet prerequisites before installing VMware PKS
  - Describe how BOSH unifies release engineering, deployment, and life cycle management of cloud software in a VMware PKS platform
  - Describe how PCF Operations Manager is used to configure and deploy the VMware PKS platform components
  - Describe how VMware NSX-TTM Data Center integrates with VMware PKS to provide networking and security services for all the components in a VMware PKS Kubernetes environment
  - Install, manage, monitor, and troubleshoot a VMware PKS Kubernetes environment
  - Use Day 2 operations to create, view, scale, and delete Kubernetes clusters and upgrade VMware PKS
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### Prerequisites:

**Attendees should meet the following prerequisites:**

- System administration experience with cloud computing concepts
- Completion of VMware vSphere: Install, Configure, Manage **VSICM** or 6-months working experience with the product
- Completion of VMware NSX-T: Install, Configure, Manage **VMNSXICM** or 6-months working experience with the product

### Testing and Certification

**Recommended as preparation for the following exams:**

- There are no exams currently aligned to this course
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## Content:

### Course Introduction

- Introductions and course logistics
- Course objectives
- Describe the content of the course
- Gain a complete picture of the VMware certification system
- Familiarize yourself with the benefits of the VMware Education Learning Zone (VLZ)
- Identify additional resources

### VMware PKS Value Proposition

- Define containers and differentiate between containers and virtual machines
- Explain why the popularity of containers is rising and why Kubernetes is needed to manage them
- Explain how VMware PKS is a comprehensive Kubernetes solution

### VMware PKS Architecture

- Describe how BOSH unifies release engineering, deployment, and life cycle management of cloud software
- Explain Cloud Foundry Container Runtime (CFCR) and the problems that it solves
- Describe processes that run on the VMware PKS Kubernetes master and worker nodes
- Describe the default pods that run on the VMware PKS Kubernetes clusters
- Describe the VMware PKS control plane and the tasks that it can perform
- Describe how the PCF Operations Manager is used to configure and deploy platform components
- Explain how Project Harbor is integrated into VMware PKS to provide enterprise-class registry services

### Networking VMware PKS with NSX-T Data Center

- Describe the benefits of NSX-T Data Center
- Describe how NSX-T Data Center integrates with VMware PKS
- Describe how the NSX-T Container Plug-in provides integration between NSX-T Data Center and Kubernetes
- Describe the NSX node agent
- Describe the NSX kube-proxy
- Explain the logical topology of NSX-T Data Center in a VMware PKS environment

### VMware PKS Installation

- Describe the VMware PKS and vSphere physical topology options
- List the vSphere and networking prerequisites for installing VMware PKS
- Install PCF Operations Manager
- Install BOSH
- Install VMware PKS
- Install Harbor for VMware PKS

### Managing VMware PKS

- List the tools used to manage VMware PKS
- Describe how to create and manage users
- Explain how to create, view, and delete network profiles
- Explain how to create, view, scale, and delete clusters
- Describe how to create and manage persistent volumes.
- Describe how to upgrade VMware PKS
- Describe how to backup and restore VMware PKS

### Monitoring

- Describe how vRealize Log Insight integrates with VMware PKS
- Describe how vRealize Operations is used to monitor objects in VMware PKS
- Describe the Wavefront® by VMware® metrics and monitoring solution
- Describe the VMware PKS Sink Resources feature

### Troubleshooting

- Describe what troubleshooting tasks can be performed using BOSH CLI
- Describe what troubleshooting tasks can be performed using PCF Operations Manager
- Explain how to retrieve log bundles from VMware PKS components

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## Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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