vSphere Foundation: Build, Manage and Operate

Category: Infrastructure & IT Operations | **Vendor:** VMware

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

Course Information

Delivery Format: Instructor Led - Online

Course Overview

This five-day course provides you with the knowledge, skills, and abilities to achieve competence in deploying, configuring and managing VMware vSphere Foundation. You will learn about the architecture of vSphere Foundation, compute, storage, networks and licensing.

This course prepares you to administer a vSphere Foundation, which includes VCF Operations 9.0, vCenter 9.0, and ESX 9.0.

About This Course

- Course Introduction
- VMware vSphere Foundation Overview and Architecture
- License Management
- vSphere Foundation Compute
- vSphere Foundation Networking
- vSphere Foundation Storage
- Deploying Virtual Machines
- Virtual Machine Management
- Deploying and Configuring vSphere Clusters
- vSAN Management
- vSphere Kubernetes Service Overview
- VCF Operations Metrics
- vSphere Foundation Deployment
- Managing the vSphere Foundation Lifecycle

Who Should Attend

System Administrators, Solution Engineers, Consultants, Architects, and Support Personnel

Prerequisites & Entry Requirements

General Prerequisites:

This course has the following prerequisites:

- Working experience and knowledge of VMware vSphere, VMware NSX, and vSAN environments

Learning Outcomes

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

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

- Define the key features, use cases and, capabilities of vSphere Foundation.
- Navigating the VCF Operations User Interface.
- Describe the licensing options and manage licenses for vSphere Foundation.
- Describe the installation and configuration of ESX.
- Create virtual networks using vSphere standard switches and distributed switches.
- Create and configure datastores using storage technologies supported by vSphere.
- Use the vSphere Client to create virtual machines, templates, clones, and snapshots.
- Create content libraries for managing templates and deploying virtual machines.
- Manage virtual machine resource allocation.
- Migrate virtual machines with VMware vSphere vMotion and VMware vSphere Storage vMotion.
- Create and configure a vSphere cluster that is enabled with VMware vSphere High Availability and VMware vSphereDistributed Resource Scheduler.
- Analyzing the Placement of VM Objects and Components in the vSAN Cluster.
- Creating Custom Views and Policies in VCF Operations.
- Describe vSphere Kubernetes, vSphere Supervisor Service.
- Deploy and configure vSphere Foundation.
- Deploy additional vSphere Foundation components such as VCF Operations Collector, VCF Operations for Logs, andVCF Operations for Orchestrator.
- Manage the life cycle of VCF Operations and vSphere components.

Detailed Course Outline

Course Introduction

- Introduction and course logistics.
- Course objectives.

VMware vSphere Foundation Overview and Architecture

- Define the vSphere Foundation key features.
- Explain vSphere Foundation use cases.
- Explain the architecture of vSphere Foundation.
- Explore the components of vSphere Foundation.
- Introduction to VCF Operations.
- List the steps to navigate the VCF Operations UI and vSphere UI.

License Management

- Describe the process for managing and assigning licenses.
- Enable VCF Operations integration for vCenter.
- Explain license usage by product.

vSphere Foundation Compute

- Explain basic virtualization concepts.
- Describe how vSphere fits in the software-defined data center.
- Describe vSphere architecture and use cases.
- Recognize the user interfaces for accessing vSphere.
- Install and configure ESXi host.
- Create and organize vCenter inventory objects

vSphere Foundation Networking

- Create and configure standard switch.
- Create and configure distributed switch.
- Differentiate between standard and distributed switches.
- Explain how to set networking policies.

vSphere Foundation Storage

- Recognize vSphere storage technologies.

- Identify the types of vSphere datastores.

- Describe Fibre Channel components and addressing.

- Describe iSCSI components and addressing.

- Configure iSCSI storage on ESXi.

- Create and manage VMFS datastores.

- Configure and manage NFS datastores.

Deploying Virtual Machines

- Create and provision VMs.

- Explain the importance of VMware Tools.

- Manage a virtual machine from the vSphere client.

- Manage virtual machine resources.

- List the steps to deploy virtual machines.

- Clone VMs and create customization specifications for guest operating systems.

- Create local, published, and subscribed content libraries.

Virtual Machine Management

- Migrate VMs using vSphere vMotion and Storage vMotion.

- Perform snapshots operations.

- Specify CPU and memory shares, reservations, and limits.

Deploying and Configuring vSphere Clusters

- Create a vSphere cluster enabled for vSphere DRS and vSphere HA.

- Explain how vSphere DRS determines VM placement on hosts in the cluster.

- Recognize use cases for vSphere DRS settings.

- Describe how vSphere HA responds to various types of failures.

- Identify options for configuring network redundancy in a vSphere HA cluster.

- Recognize vSphere HA design considerations.

- Recognize the use cases for various vSphere HA settings.

- Configure a vSphere HA cluster.

vSAN Management

- Identify the features of vSAN.

- Understand the key differences between vSAN OSA and vSAN ESA.

- Explain the role of the performance leg and the capacity leg in vSAN ESA.

- Examine vSAN ESA Object health states.

- Compare how RAID-0/1/5/6 space consumption.

- Identify vSAN component states.

vSphere Kubernetes Service Overview

- Describe vSphere Supervisor Architecture and use cases.

- Explain vSphere Supervisor Deployment Options.

- Install vSphere Supervisor.

- Explain Supervisor Storage vSphere Zones, Networking, and Storage.

- Configuring and managing a supervisor.

- Configuring vSphere Namespaces for Hosting VKS Clusters.

- Managing vSphere Kubernetes Service Clusters.

VCF Operations Metrics

- Outline the role of metrics in VCF Operations.

- Create and configure views in VCF Operations.

- Create and configure reports in VCF Operations.

- Create and configure dashboards in VCF Operations.

- Configure widget interactions.

- Describe the purpose of using alerts.

- Identify the components of an alert definition.

- Create static symptom definitions.

vSphere Foundation Deployment

- Prepare the infrastructure for VMware vSphere Foundation.
- Identify the information required for the Planning and Preparation Workbook.
- Explain the high-level steps to deploy vSphere Foundation.
- Describe the procedure for downloading the software using online and offline modes.
- Describe the vSphere Foundation workflow using the VCF Installer UI and JSON spec file.
- Deploy and enable VCF Operations collector, VCF Operations for Logs, and VCF Operations Orchestrator
- Deploy vCenter Server Appliance.

Managing the vSphere Foundation Lifecycle

- Describe features of the vCenter Update Planner.
- Run vCenter upgrade prechecks and interoperability reports.
- Recognize features of VMware vSphere Lifecycle Manager
- Validate and update ESXi hosts using vSphere Lifecycle Manager
- Use vSphere Lifecycle Manager to upgrade VMware Tools and VM hardware

Skills You Will Learn:

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Frequently Asked Questions

Q: What delivery options are available for vSphere Foundation: Build, Manage and Operate?

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

Q: How many CPD hours does this course provide?

The 5-day vSphere Foundation: Build, Manage and Operate 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 vSphere Foundation: Build, Manage and Operate 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 vSphere Foundation: Build, Manage and Operate?

Yes, we provide corporate training, dedicated training, and closed classes for vSphere Foundation: Build, Manage and Operate. 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: What related terms do people search for?

Popular related searches include: vSphere Foundation: Build, Manage and Operate, VMware vSphere, VVFBMO

Q: Why choose Nexus Human for vSphere Foundation: Build, Manage and Operate?

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 vSphere Foundation: Build, Manage and Operate 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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