

# VM-VS-FT (VMWARE VSPHERE: FAST TRACK) 5.5

## Objetivo

This intensive, extended-hours and hands-on lab training course focuses on installing, configuring, managing and mastering VMware vSphere® 5.5, including VMware ESXi™ 5.5 and VMware vCenter™ 5.5. This course combines the content of our best-selling VMware vSphere: Install, Configure, Manage course with advanced scalability and performance monitoring tasks and skills needed for configuring highly available and scalable vSphere environments. Students will gain practical experience with these concepts through the completion of hands-on labs. Completion of this course satisfies the prerequisite for taking the VMware® Certified Professional 5 - Data Center Virtualization (VCP5- DCV) exam. By the end of the course, you should be able to meet the following objectives:

- Deploy, configure and manage a virtual infrastructure environment ESXi and vCenter
- Configure and manage standard and advanced ESXi networking and storage architectures
- Create, configure, migrate, manage, and monitor virtual machines and virtual appliances
- Manage role-based access to the VMware® virtual infrastructure
- Use vCenter Server to monitor resource usage of an environment and plan scalability of the environment
- Implement VMware vSphere® High Availability and VMware vSphere® Fault Tolerance for virtual machine protection
- Use host profiles to manage ESXi configuration compliance and large scale deployment
- Use vSphere distributed switches to scale networking
- Use policy-driven storage and VMware vSphere® Storage DRS™ to scale storage
- Use VMware vSphere® Update Manager™ to apply ESXi patches
- Use VMware vSphere® Management Assistant to manage and monitor a vSphere environment
- Deploy ESXi, vCenter Server, and VMware® vCenter Server™ Appliance™
- Use VMware vSphere® ESXi™ Image Builder CLI to create an ESXi image and use that image with VMware vSphere® Auto Deploy™ to provision ESXi hosts

## Público Alvo

This course is designed for new and experienced system administrators, systems engineers and system integrators willing to work hard to achieve superior vSphere skills with minimal time away from the office

## Pré-Requisitos

- System administration experience on Microsoft Windows or Linux operating systems
- Understanding of concepts presented in the VMware Data Center Virtualization Fundamentals course or VCA-DCV certification

## Carga Horária

40 horas (5 dias).

## Conteúdo Programático

- 1 Course Introduction
  - Introductions and course logistics
  - Course objectives

## 2 Software-Defined Data Center

- Introduce virtualization and vSphere components
- Explain the concepts of server, network, and storage virtualization
- Describe where vSphere fits into the cloud architecture
- Install and use vSphere user interfaces
- Describe the ESXi architecture and configure various ESXi settings

## 3 Creating Virtual Machines

- Introduce virtual machines, virtual machine hardware, and virtual machine files
- Deploy a single virtual machine

## 4 VMware vCenter Server

- Introduce vCenter Server architecture
- Introduce vCenter Server Appliance
- Install and configure vCenter Server Appliance
- Using the VMware vSphere® Web Client
- Configuring VMware® vCenter™ Single Sign-On™
- Manage vCenter Server inventory objects and licenses

## 5 Configuring and Managing Virtual Networks

- Describe, create, and manage a standard switch
- Describe and modify standard switch properties
- Describe the NIC teaming of a standard switch port group

## 6 Configuring and Managing Virtual Storage

- Introduce storage protocols and device names
- Configure ESXi with iSCSI, NFS, and Fibre Channel storage
- Create and manage VMware vSphere® VMFS datastores
- Introduce VMware® Virtual SAN™ datastores

## 7 Virtual Machine Management

- Use templates and cloning to deploy virtual machines
- Modify and manage virtual machines
- Create and manage virtual machine snapshots
- Perform VMware vSphere® vMotion® and VMware vSphere® Storage vMotion® migrations
- Create a VMware vSphere® vApp™

## 8 Access and Authentication Control

- Control user access through roles and permissions
- Discuss ESXi host access and authentication
- Integrate ESXi with Active Directory

## 9 Resource Management and Monitoring

- Introduce virtual CPU and memory concepts
- Describe methods for optimizing CPU and memory usage

- Configure and manage resource pools
- Use vCenter Server performance graphs and alarms to monitor resource usage

## 10 High Availability and Fault Tolerance

- Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster
- Set vSphere HA advanced parameters
- Enable vSphere FT on a virtual machine
- Describe VMware vSphere® Replication

## 11 Network Scalability

- Create, configure, and manage vSphere distributed switches, network connections, and port groups
- Discuss distributed switch features, such as private VLANs, discovery protocols, VMware vSphere® Network I/O Control, NetFlow, and port mirroring

## 12 Host Scalability

- Use host profiles to manage ESXi configuration compliance
- Configure and manage a VMware vSphere® Distributed Resource Scheduler™ cluster
- Configure Enhanced vMotion Compatibility
- Use vSphere HA and vSphere DRS together

## 13 Storage Scalability

- Describe VMware vSphere® Storage APIs - Array Integration and Storage Awareness
- Explain policy-driven storage
- Add a storage policy to a virtual machine storage profile
- Introduce VMware vSphere® Storage I/O Control
- Create a datastore cluster
- Configure Storage DRS

## 14 Patch Management

- Use vSphere Update Manager to manage ESXi patching
- Install vSphere Update Manager and the vSphere Update Manager plug-in
- Create patch baselines
- Scan and remediate hosts

## 15 VMware Management Resources

- Describe vSphere Management Assistant
- Configure vSphere Management Assistant
- Discuss the VMware vSphere® Command-Line Interface command set
- Perform command-line operations for host management, network management, storage management, and performance monitoring

## 16 Installing VMware Components

- Describe vCenter Linked Mode to manage multiple vCenter Server inventories

- Introduce ESXi installation
- Describe boot-from-SAN requirements
- Describe vCenter Server hardware, software, and database requirements
- Install vCenter Server (Windows-based)

#### 17 Host and Management Scalability

- Configure and manage VMware vSphere® Distributed Power Management™
- Use VMware vSphere® PowerCLI™
- Use vSphere ESXi Image Builder CLI to create an ESXi installation image
- Use vSphere Auto Deploy to deploy a stateless ESXi host