

*fast lane*

vmware®  
PARTNER

AUTHORIZED  
TRAINING CENTER



***VMware 2010***



vmware®  
PARTNER

AUTHORIZED  
TRAINING CENTER

# ***VMware Training***

- VMware vSphere 4: What's New (VIWN)***
- VMware vSphere 4: Install, Configure, Manage (VICM)***
- VMware vSphere 4: Troubleshooting (VSTS)***
- VMware vSphere 4: Fast Track (VVFT)***
- VMware vSphere: Design Workshop (VDW)***
- VMware Capacity Planner (VCAP)***
- VMware View™: Install, Configure, Manage (VIEW)***
- VMware View: Design (VVD)***
- VMware vSphere: Manage Availability (VMA)***
- VMware Site Recovery Manager (VSRM)***
- VMware vSphere: Manage Scalability (VMS)***
- VMware vSphere: Manage for Performance (VMP)***

# VMware vSphere 4: What's New (VIWN)

## VIWN / 2 Days / Online Training USD\$ 995

### Who should attend

System architects, system administrators, IT managers, and individuals responsible for implementing and managing VMware Infrastructure architectures. This hands-on training course explores new features in future versions of VMware® vCenter Server and ESX™/ESXi, as well as how to upgrade. **Certifications**

This course is part of the following Certifications:

- \* VMware Certified Professional (VCP)

### Prerequisites

Recommended Completion of VMware Infrastructure 3: Install and Configure, or equivalent experience with VMware ESX and vCenter Server.

### Course Objectives

At the end of the course, you should possess knowledge and skills for the following:

- \* Upgrading VMware deployments
- \* Deploying distributed virtual switches to simplify datacenter-wide network management
- \* Using VMDirectPath to assign a PCI adapter directly to a virtual machine
- \* Migrating virtual machines' storage while they are live with Storage vMotion
- \* Growing virtual disks and VMFS volumes while they are live
- \* Employing VMware's new Pluggable Storage Architecture
- \* Ensuring application availability with VMware Fault Tolerance
- \* Manage more than one vCenter Server from the same client
- \* Use the new host profiles feature to keep hosts uniformly configured
- \* Save energy with VMware Distributed Power Management
- \* Save disk space with thin provisioning
- \* Administer virtual appliances consisting of more than one virtual machine

### Course Content

#### Module 1: Introducing the Next Generation of VI

Highlights Next Generation enhancements by component and reviews upgrade tools and strategies.

#### Module 2: Infrastructure Administration

Presents new features that support better infrastructure monitoring and reduce the time it takes to provision ESX/ESXi hosts and virtual machines.

#### Module 3: Networking

Discusses networking enhancements that simplify configuration, extend support, and improve performance.

#### Module 4: Storage

Introduces new storage features that reduce storage costs, streamline management, and optimize performance.

#### Module 5: Resource Management

Reviews vMotion™ compatibility enhancements, new VMware Distributed Resource Scheduler monitoring and management tools, and extended VMware DPM support.

#### Module 6: Business Continuity

Presents VMware High Availability enhancements and introduces VMware Fault Tolerance and vStorage APIs for data recovery

ONLINE TRAINING

# VMware vSphere 4: Install, Configure, Manage (VICM)

VICM / 4 Days/ USD\$1 995 / Online Training USD\$ 1,595

## Who should attend

System administrators, systems engineers, and operators responsible for ESXi, ESX, and/or vCenter Server.

## Certifications

This course is part of the following Certifications:

- \* VMware Certified Professional (VCP)

## Prerequisites

System administration experience on Microsoft Windows or Linux operating systems.

## Course Objectives

This hands-on training course explores installation, configuration, and management of VMware® vSphere, which consists of VMware ESXi/ESX™, and VMware vCenter Server. Upon completion of this course, you can take the examination to become a VMware Certified Professional. The course is based on ESXi 4.0, ESX 4.0, and vCenter Server 4.0.

## Course Content

- \* Introduction to VMware Virtualization
- \* Configuring ESXi/ESX
- \* Installing and Using VMware vCenter Server
- \* Networking
- \* Storage
- \* Virtual Machines
- \* Access Control
- \* Resource Monitoring
- \* Scalability
- \* High Availability and Data
- \* Protection
- \* Configuration Management
- \* Installing ESX

# VMware vSphere 4: Troubleshooting (VSTS)

VSTS / 4 Days/ USD\$2 995

## Who should attend

System administrators, systems engineers, and help desk personnel who need the knowledge, skills, and abilities to perform advanced troubleshooting of their vSphere deployments.

## Prerequisites

This is an advanced course. Required prerequisites include the completion of one of the following:

- \* Completion of the following three courses: VMware vSphere 4: Install, Configure, Manage (VICM), VMware vSphere: Manage Availability (VMA), VMware vSphere: Manage Scalability (VMS)
- \* Completion of VMware vSphere: Fast Track.
- \* Equivalent knowledge and administration experience with ESX/ESXi and vCenter Server

## Course Objectives

This lab-intensive course focuses on providing system administrators with the advanced knowledge, skills, and abilities to achieve competence in troubleshooting the VMware vSphere™ virtual infrastructure. In this course, you will spend most of the time diagnosing and rectifying configuration problems created on VMware® ESX™/ESXi hosts and VMware vCenter™ Server systems. Upon completion of this course, you can take the examination to become a VMware Certified Professional.

## Objectives:

- \* Use the VMware vSphere Client and service console commands to configure or diagnose and rectify problems on ESX
- \* Use the vSphere Client and the VMware vSphere Management Assistant (vMA) appliance to configure or diagnose and rectify problems on ESX and ESXi hosts
- \* Use ESXi technical support mode to diagnose and rectify problems on ESXi
- \* Create and use a network sniffer to capture and display virtual switch network traffic
- \* Use the vSphere Client and command-line tools to troubleshoot VMware VMotion™, VMware Storage VMotion, VMware High Availability, VMware Distributed Resource Scheduler, and virtual machine power-on problems

## Course Content

### Module 1: Course Introduction

### Module 2: ESXi Command-Line Troubleshooting Methods

- \* Install and use the vMA
- \* Learn common vSphere Command-Line Interface commands and syntax
- \* Configure ESXi technical support mode and SSH access

### Module 3: ESX, ESXi, and vCenter Server Log Files

- \* View ESX, ESXi, and vCenter Server log files
- \* Configure a centralized ESX/ESXi log host

### Module 4: Network Troubleshooting

- \* Identify and configure vNetwork components
- \* Configure and use a network traffic sniffer

### Module 5: Management Troubleshooting

- \* Troubleshoot vSphere management components

### Module 6: Storage Troubleshooting

- \* View, configure, and diagnose storage access problems
- \* Configure iSCSI authentication and digests

### Module 7: vMotion Troubleshooting

- \* Troubleshoot VMotion and Storage VMotion errors

### Module 8: VMware Infrastructure Troubleshooting

- \* Troubleshoot DRS Cluster errors with shares, pools, and limits
- \* Troubleshoot HA Cluster errors with slot calculations, admission control, and host monitoring
- \* Review virtual machine power on requirements
- \* Troubleshoot virtual machine power on failures

### Module 9: vSphere 4 DRS Cluster Troubleshooting

- \* Complete a final multihour, multiproblem troubleshooting exercise

# VMware vSphere 4: Fast Track (VVFT)

## VVFT / 5 Days / USD\$ 2, 195

### Who should attend

Experienced system administrators and system integrators who want to achieve superior vSphere skills with minimal time away from the office

### Certifications

This course is part of the following Certifications:

- \* VMware Certified Professional (VCP)

### Prerequisites

Comfort with system administration using command-line interfaces

### Course Objectives

At the end of the course, you should be able to:

- \* Install and configure VMware ESX™/ESXi, vCenter™ Server, vCenter Converter, vCenter Server Heartbeat, Data Recovery, and vCenter Update Manager
- \* Configure and manage vSphere networking and storage from both graphical and command-line interfaces
- \* Create, configure, migrate, convert, monitor, patch, and back up virtual machines and virtual appliances
- \* Use VMware Distributed Resource Scheduler (DRS) to automate resource management
- \* Implement high availability and fault-tolerance solutions

### Course Content

- \* **Module 1: Course Introduction**
- \* **Module 2: Introduction to VMware Virtualization**
- \* **Module 3: Configuring VMware ESX/ESXi**
- \* **Module 4: Installing and Using VMware vCenter Server**
- \* **Module 5: Networking**
- \* **Module 6: Storage**
- \* **Module 7: Virtual Machines**
- \* **Module 8: Access Control**
- \* **Module 9: Resource Monitoring**
- \* **Module 10: Scalability**
- \* **Module 11: High Availability and Data Protection**
- \* **Module 12: Configuration Management**
- \* **Module 13: Installing ESX**

# VMware vSphere: Design Workshop (VDW)

## VDW / 3 Days / USD\$ 1,680

### Who should attend

The course is designed for VMware pre- and post sales technical professionals responsible for designing vSphere architectures.

### Prerequisites

Knowledge of vSphere 4 installation, upgrade, configuration, and administration

### Course Objectives

At the end of this course, you will have applied the design methodology, criteria, and approach to create a vSphere design based on one or more case studies. Also, you should be able to:

- \* Identify design goals, requirements, and constraints
- \* Identify useful information for making design decisions
- \* Recognize and analyze best-practice recommendations
- \* Analyze alternative design choices
- \* Identify risks
- \* Work in a design team on a design project

### Course Content

#### Module 1: Course Introduction

- Provide a general overview of the course

#### Module 2: Design Process Overview

- Discuss the design methodology, criteria, and approach
- Introduce an example five-step design process

#### Module 3: ESX/ESXi Host Design

- Identify useful information for making host design decisions
- Analyze best practices and host design alternatives

#### Module 4: vSphere Virtual Datacenter Design

- Identify useful information for making vCenter Server, database, cluster, and resource pool design decisions
- Analyze best practices and vCenter Server, database, cluster, and resource pool design alternatives

#### Module 5: vSphere Network Design

- Identify useful information for making network design decisions
- Analyze best practices and network design alternatives

#### Module 6: vSphere Storage Design

- Identify useful information for making storage design decisions
- Analyze best practices and storage design alternatives

#### Module 7: Virtual Machine Design

- Identify useful information for making virtual machine design decisions
- Analyze best practices and virtual machine design alternatives

#### Module 8: Management and Monitoring Design

- Identify useful information for making management and monitoring design decisions
- Analyze best practices and management and monitoring design alternatives

#### Design Workshop

- Small group case study workshop to practice using the methodology, criteria, and approach required to design a vSphere virtual datacenter

# VMware Capacity Planner (VCAP)

VCAP / 2 Días / Online Training: USD\$ 795

## Who should attend

IT consultants or systems engineers offering server consolidation services to their clients using VMware products. This course is restricted to VMware employees and authorized VMware Partners.

## Prerequisites

Windows and/or Unix/Linux system administration experience, including network-interface configuration, file permissions and familiarity with performance-tuning basics on x86-architecture.

## Course Objectives

VMware Capacity Planner is a consolidation assessment and decision support tool used by organizations to build the best possible infrastructure virtualization plan to contain server sprawl and reduce power and cooling costs. VMware Capacity Planner automates the data collection and analysis of server resources and their performance and utilization profiles, so that you can justify your virtualization projects and drive your business. This course trains consultants and systems engineers to use VMware proprietary tools to collect and view system, inventory, and performance data for use in consolidation, capacity planning, and performance tuning projects.

## Course Content

### Introducing VMware Capacity Planner

- \* Introduction to the course
- \* Introduction to the tool

### Before the Engagement

- \* Ensuring success through logistical planning
- \* Scoping out the engagement

### During the On-site

- \* Installing and configuring Capacity Planner Data Manager
- \* Configuring notifications
- \* Conducting customer interviews

### During the Data Collection Period

- \* Monitoring data collection levels
- \* Creating server groups
- \* Defining hardware templates
- \* Creating consolidation scenarios

### Troubleshooting Capacity Planner

- \* Troubleshooting logistical issues
- \* Troubleshooting Capacity Planner Data Manager
- \* Troubleshooting Capacity Planner Dashboard

### Creating Customer Deliverables

- \* Classifying servers
- \* Calculating TCO/ROI
- \* Available report formats

## After the Engagement

- \* **Virtualization opportunities**
- \* **Other opportunities**



# VMware View™: Install, Configure, Manage (VIEW)

VIEW / 3 Days/ USD\$1 595 / Online Training USD\$ 1,295

## Who should attend

System administrators and system integrators experienced with VMware Infrastructure 3 who are responsible for their organization's deployment of VMware technology for virtual desktop infrastructure.

## Prerequisites

### Required

- \* Experience in Microsoft Windows Active Directory (AD) administration
- \* Experience with VMware Infrastructure 3

### Recommended

- \* Completion of VMware Infrastructure 3: Install and Configure V3.5 (VIIC)
- Basic Skills Self-Assessment

You must already have these skills:

- \* Create a template in VMware vCenter Server and deploy a virtual machine from it.
- \* Modify a template customization file.
- \* Open a virtual machine console on vCenter Server and access the guest operating system.
  - \* Modify a virtual machine's hardware (add disk, add NIC).
  - \* Configure Windows AD roaming profiles.

## Course Objectives

This hands-on training course builds your skills in the VMware View suite of products: VMware View Manager, VMware View Composer, and VMware ThinApp™.

At the end of the course, you should understand the features and operation of VMware View and be able to:

- \* Install and configure the VMware View components
- \* Create persistent and nonpersistent desktop pools
- \* Configure virtual desktops for printing, USB redirection, and multimedia redirection
- \* Configure authentication using devices such as smart cards or cryptographic authentication fobs
- \* Use VMware View Composer to deploy and manage linked clone virtual desktops
- \* Package applications using VMware ThinApp for a VMware virtual desktop infrastructure

## Course Content

### Module 1: Course Introduction Module 2: Introduction to VMware View

- \* VMware View features and components

### Module 3: VMware View Connection Server

- \* Installation and configuration
- \* View Administrator

### Module 4: VMware View Virtual Desktops

- \* VMware View Agent
- \* USB redirection and multimedia redirection

### Module 5: VMware View Client Options

- \* VMware View Client
- \* VMware View Portal
- \* Thin clients and Offline Desktop

### Module 6: View Administrator

- \* Configuring automated desktop pools
- \* Persistent and nonpersistent pools

### Module 7: Configuring and Managing Linked Clones

- \* VMware View Composer configuration
- \* Deploying and modifying linked clone desktops

### Module 8: Unified Access

- \* Accessing physical systems, blade PCs, Terminal Services

### Module 9: Virtual Printing

- \* Seamless printing from desktop to client printers

### Module 10: Managing View Security

- \* Network configuration and authentication options

### Module 11: View Manager Performance and Scalability

- \* Performance enhancements and load balancing

### Module 12: VMware ThinApp

- \* Deploying applications using VMware ThinApp

# VMware View: Design (VVD)

## VVD / 1 Day / USD\$ 745

### **Who should attend**

System architects, system administrators, IT managers, and individuals responsible for designing VMware View architectures

### **Prerequisites**

Completion of VMware View: Install, Configure, Manage or equivalent experience with VMware View

### **Course Objectives**

At the end of the course, you should understand the principles involved in designing a View architecture:

- \* The recommended design process
- \* The layered architecture design model and the reference framework for a View design
- \* Design considerations to meet business needs
- \* VMware's best practices for a View deployment

### **Course Content**

#### **Module 1: Course Introduction**

#### **Module 2: Design Methodology**

- \* Design process
- \* Elements of a View deployment design
- \* Multilayered reference architecture

#### **Module 3: Design Considerations**

- \* Designing for client access devices
- \* Designing the access infrastructure
- \* Designing the virtual infrastructure
- \* Designing virtual desktops
- \* End-user session management

# VMware vSphere: Manage Availability (VMA)

## VMA / 1 Day / USD\$ 745

### Who should attend

System administrators, systems engineers, and solutions architects who need the knowledge, skills, and abilities to ensure the availability of their existing vSphere deployments

### Prerequisites

Completion of the VMware vSphere 4: Install, Configure, Manage course or the VMware vSphere 4: What's New course, or have prior experience using VMware ESX™/ESXi and vCenter products

### Course Objectives

At the end of the course, you should be able to understand the functionality in vSphere and be able to:

- \* List the components of business continuity
- \* Describe Microsoft Windows 2003 and 2008 cluster configurations
  - \* Configure a VMware High Availability (HA) cluster using nondefault options
  - \* Deploy fault-tolerant virtual machines using VMware Fault Tolerance (FT)
  - \* Deploy VMware vCenter™ Server Heartbeat

### Course Content

#### Module 1: Course Introduction

#### Module 2: Business Continuity

- \* Overview of vSphere features for high availability, fault tolerance, data protection, and disaster recovery

#### Module 3: Virtual Machine Clustering

- \* vSphere general requirements for Microsoft failover clusters
- \* Overview of the supported Microsoft failover cluster configurations

#### Module 4: VMware High Availability Clusters

- \* VMware HA advanced parameters affecting slot size
- \* Deploying different admission control policies
- \* Configuring redundant heartbeat networks and isolation test addresses

#### Module 5: VMware Fault Tolerance

- \* Overview of FT prerequisites and FT operation
- \* FT best practices
- \* Configuring, monitoring, and testing a fault-tolerant virtual machine

#### Module 6: VMware vCenter Server Heartbeat

- \* Overview of vCenter Server Heartbeat operation
- \* Installing and configuring vCenter Server Heartbeat
- \* Failover and switchover with vCenter Server Heartbeat
- \* Monitoring vCenter Server Heartbeat

# VMware Site Recovery Manager (VSRM)

## VSRM / 2 Days / USD\$ 1,695

### **Who should attend**

System administrators and systems integrators experienced with VMware Infrastructure 3 who are responsible for their organization's deployment of SRM

### **Prerequisites**

- \* Completion of VMware Infrastructure 3: Install and Configure or equivalent experience with VMware Infrastructure 3
- \* Basic knowledge of disaster recovery concepts
- \* Basic knowledge of storage array technology

### **Course Objectives**

At the end of the course, you should be able to do the following:

- \* Create a disaster recovery workflow for your virtual machines using SRM
- \* Install SRM components
- \* Configure SRM storage replication adapters
- \* Configure SRM protected and recovery sites
- \* Configure SRM array managers
- \* Define SRM inventory mappings
- \* Create SRM recovery plans
- \* Test SRM recovery plans
- \* Execute SRM recovery plans (failover)

### **Course Content**

- Module 1: SRM Overview**
- Module 2: Introduction to Disaster Recovery**
- Module 3: SRM Planning**
- Module 4: SRM Installation**
- Module 5: Array Managers**
- Module 6: Inventory Mappings**
- Module 7: Protection Groups**
- Module 8: Recovery Plans**
- Module 9: SRM Alarms and Site Status**
- Module 10: Troubleshooting**
- Module 11: Failover Testing and Failover**
- Module 12: Failback**

# VMware vSphere: Manage Scalability (VMS)

## VMS / 1 Day / USD\$ 745

### Who should attend

System administrators, systems engineers, and solutions architects who need the knowledge, skills, and abilities to build scalability into their existing VMware vSphere deployments.

### Prerequisites

Completion of the VMware vSphere 4: Install, Configure, Manage course, or have equivalent experience using VMware ESX™/ESXi and vCenter products.

### Course Objectives

At the end of the course, you should understand the functionality in vSphere and be able to scale your vSphere implementation by:

- \* Saving disk space by thin-provisioning virtual machines
- \* Using Host Profiles to keep ESX/ESXi hosts uniformly configured and manage configuration compliance
- \* Configuring VMware DRS clusters with non-default options
- \* Configuring VMware Distributed Power Management
- \* Managing more than one vCenter Server from the same vSphere Client with VMware vCenter Linked Mode

### Course Content

#### Module 1: Course Introduction

#### Module 2: Thin Provisioning

- \* Overview of vSphere features for adding ability to scale VMFS storage by more efficiently allocating space to virtual disk files
- \* Monitor and manage thin-provisioned VMFS datastores and virtual disk storage allocation and usage

#### Module 3: Host Profiles

- \* Create, manage and apply vSphere Host Profiles to ESX/ESXi hosts
- \* Use Host Profiles to maintain ESX/ESXi host compliance

#### Module 4: VMware Distributed Resource Scheduler Clusters

- \* Use VMware DRS and VMware Distributed Power Management (DPM) non-default configuration options
- \* Configure DRS affinity and anti-affinity rules for cluster scalability
- \* Configure VMware DPM to provide efficient power management for DRS-enabled clusters

#### Module 5: VMware vCenter Linked Mode

- \* Use VMware vCenter Linked Mode to manage multiple vCenter Server inventories
- \* VMware vCenter Linked Mode architecture and requirements
- \* Configure vCenter Linked Mode groups

#### Module 6: VMware ESX Scripted Installation

- \* Use ESX scripted installation to automate deployment of ESX/ESXi hosts
- \* Create and manage ESX installation scripts
- \* ESX/ESXi host script commands

# VMware vSphere: Manage for Performance (VMP)

VMP / 3 Days / USD\$ 2,475

## Who should attend

System administrators, systems engineers, and consultants responsible for managing the performance of a vSphere installation

## Prerequisites

This is an advanced course. Required prerequisites include the completion of one of the following:

- \* VMware vSphere 4: Install, Configure, Manage
- \* VMware vSphere: Fast Track
- \* VMware vSphere 4: What's New
- \* Equivalent knowledge and administration experience with ESX/ESXi and vCenter Server

Experience with working at the command prompt is highly recommended.

## Course Objectives

Explain the performance impact of using different monitor modes

- \* Use vSphere tools to monitor the performance of ESX/ESXi hosts
- \* Diagnose performance problems relating to CPU, memory, network, and storage on an ESX/ESXi host
- \* Discuss how to achieve an optimal virtual machine configuration
- \* Discuss guidelines for monitoring application performance

## Course Content

### Module 1: Course Introduction

### Module 2: Performance in a Virtualized Environment

- \* Discuss the vSphere performance troubleshooting methodology
- \* Discuss software and hardware virtualization techniques and their impact on performance
- \* Monitor performance using vCenter Server performance charts and the ESX/ESXi `resxtp` command

### Module 3: CPU Performance

- \* Discuss the CPU scheduler and other features that have an impact on CPU performance
- \* Monitor key CPU performance metrics
- \* Troubleshoot common CPU performance problems

### Module 4: Memory Performance

- \* Discuss memory reclamation techniques and memory overcommitment
- \* Monitor key memory performance metrics
- \* Troubleshoot common memory performance problems

### Module 5: Guidelines for DRS and Resource Controls

- \* Discuss performance guidelines for DRS clusters, resource pools, and resource allocation settings

### Module 6: Network Performance

- \* Discuss the performance features of modern network adapters
- \* Monitor key network performance metrics
- \* Troubleshoot common network performance problems

### Module 7: Storage Performance

- \* Discuss how storage protocols, VMware vStorage VMFS configuration, load balancing, and queuing affect performance
- \* Monitor key storage performance metrics
- \* Troubleshoot common storage performance problems

### Module 8: Virtual Machine Performance

- \* Discuss guidelines for configuring a virtual machine for optimal performance

### Module 9: Application Performance

- \* Discuss tools and guidelines for application performance



## Fast Lane Consulting and Services

### **Costa Rica**

Centro Corporativo Plaza Roble,  
Edificio Las Terrazas, Piso 1  
Escazú, San José  
Tel.: (506) 2201-9700  
info@flane.co.cr

### **México**

Av. San Lorenzo 1009, Piso 4.  
Col. Del Valle  
C.P. 03100  
Tel.: (52) 55 5601-7343  
info@flane.com.mx

### **Brasil**

Rua Manuel Guedes, 504  
Itaim Bibi - São Paulo-SP  
CEP 04536 / 070 São Paulo  
Brasil  
Tel: (55) 11 3071 1285  
info@flane.com.br

### **Perú**

Real Seis San Isidro  
Av. Víctor A. Belaúnde 147  
Edificio Real Seis piso 7 Lima 27  
Tel: (511) 712-4332.  
info@flane.co.cr

### **Panamá**

Area Bancaria, Calle Maria Ycaza  
Edificio De Lesseps, Piso 3  
Tel: (507)263-3729.  
info@flane.co.cr

### **El Salvador**

Edificio World Trade Center  
Segundo Nivel, Local 201  
Tel: (503)2509-0805.  
info@flane.com.sv

[www.flane.co.cr](http://www.flane.co.cr)