

# VMware Infrastructure: Design

## Overview

This hands-on training course explores how to design VMware Infrastructure architectures with a focus on manageability, availability, and scalability.

## Course Objectives

At the end of the course, you should understand the principles involved in designing VMware Infrastructure architectures:

- Implementing best practices and evaluating design considerations to meet business needs
- Distributing resources across ESX clusters automatically and ensuring high availability
- Architecting remote and branch offices
- Designing to support Microsoft Active Directory, SQL Server, and Exchange Server

## Target Audience

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

## Prerequisites

### *Required*

Achievement of a passing score on a short, online pretest

### *Recommended*

Completion of **VMware Infrastructure 3: Install and Configure**, or equivalent experience with VMware ESX and VirtualCenter; and administration experience with Microsoft Active Directory, Microsoft SQL Server, and Microsoft Exchange Server.

## Pricing and Scope

- Four (4) days of instructor-led, classroom training
- Classroom training consists of 50% lecture and 50% design exercises.
- Individual enrollment available at convenient locations worldwide at <http://www.vmware.com/education>
- Contact your VMware representative for pricing information.

- Onsite training is available for companies that prefer the benefits of instructor-led classes without travel.
- Contact VMware Education to discuss facility requirements onsite training at [education@vmware.com](mailto:education@vmware.com)

## Course Outline

### **Module 1: Introduction**

- **Principles of designing VMware Infrastructure architectures**

### **Module 2: Designing for Manageability**

- **Designing for lower cost of administration**

### **Module 3: Designing for Availability**

- **Fault-tolerant, resilient, and highly available architectures**

### **Module 4: Designing for Scalability**

- **Design considerations for scalability**
- **Trade-offs between scaling up versus scaling out resources**

### **Module 5: Designing Based on Analytical Tools**

- **Available analytical tools**
- **Designing templates based on inventory analysis**
- **Sizing a virtual infrastructure based on capacity analysis**

### **Module 6: Designing for Remote and Branch Offices**

- **Centralized and distributed remote office architectures**
- **Making remote office information more available**

### **Module 7: Designing for Microsoft SQL Server**

- **Designing an architecture to support SQL Server**
- **Design considerations for online transaction processing (OLTP) versus decision support systems (DSS)**
- **Deciding between VMFS, RDM, and a hybrid combination**

### **Module 8: Designing for Microsoft Active Directory**

- **Designing virtual domain controllers to minimize management while maximizing performance**

### **Module 9: Designing for Microsoft Exchange Server**

- **Designing an architecture to support Exchange Server, including Exchange 2003 and Exchange 2007 server roles**

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