



**Enterprise Computing Solutions - Education Services**

## **TRAINING OFFERING**

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**You can reach us at:**

Arrow ECS B.V., Kromme Schaft 5, 3991 AR Houten, The Netherlands

Email: [education.ecs.nl@arrow.com](mailto:education.ecs.nl@arrow.com)

Phone: +31 20 582 6109

| CODE:      | LENGTH:           | PRICE:    |
|------------|-------------------|-----------|
| VMW_VSICM7 | 40 Hours (5 days) | €3,440.00 |

## Description

This five-day course features intensive hands-on training that focuses on installing, configuring, and managing VMware vSphere® 7, which includes VMware ESXi™ 7 and VMware vCenter Server® 7. This course prepares you to administer a vSphere infrastructure for an organization of any size.

This course is the foundation for most of the other VMware technologies in the software-defined data center.

## Objectives

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

- Describe the software-defined data center (SDDC)
- Explain the vSphere components and their function in the infrastructure
- Install and configure VMware ESXi™ hosts
- Deploy and configure VMware vCenter® Server Appliance™
- Use VMware vSphere® Client™ to manage the vCenter Server inventory and the vCenter Server configuration
- Manage, monitor, back up, and protect vCenter Server Appliance
- Create virtual networks with vSphere standard switches
- Describe the storage technologies supported by vSphere
- Configure virtual storage using iSCSI and NFS storage
- Create and manage VMware vSphere® VMFS datastores
- Use the vSphere Client to create virtual machines, templates, clones, and snapshots
- Create a content library and deploy virtual machines from templates in the library
- Manage virtual machine resource use
- Migrate virtual machines with VMware vSphere® vMotion® and VMware vSphere® Storage vMotion®
- Create and manage a vSphere cluster that is enabled with VMware vSphere® High Availability and VMware vSphere® Distributed Resource Scheduler™
- Discuss solutions for managing the vSphere life cycle
- Use VMware vSphere® Update Manager™ to apply patches and perform upgrades to ESXi hosts and virtual machines

## Audience

• System administrators • System engineers

## Prerequisites

This course has the following prerequisites:

- System administration experience on Microsoft Windows or Linux operating systems

## Programme

1 Course Introduction • Introductions and course logistics • Course objectives

2 Introduction to vSphere and the Software-Defined Data Center • Explain basic virtualization concepts

- Describe how vSphere fits into the software-defined data center and the cloud infrastructure
- Explain how vSphere interacts with CPUs, memory, networks, and storage
- Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
- Use VMware Host Client™ to access and manage ESXi host 3 Virtual Machines • Create and remove a virtual machine
- Provision a virtual machine with virtual devices • Identify the files that make up a virtual machine
- Explain the importance of VMware Tools™ 4 vCenter Server • Describe the vCenter Server architecture
- Discuss how ESXi hosts communicate with vCenter Server • Deploy and configure vCenter Server Appliance
- Use the vSphere Client to manage the vCenter Server inventory
- Add data center, organizational objects, and hosts to vCenter Server
- Use roles and permissions to enable users to access objects in the vCenter Server inventory • Back up vCenter Server Appliance
- Monitor vCenter Server tasks, events, and appliance health
- Use vCenter Server High Availability to protect a vCenter Server Appliance 5 Configuring and Managing Virtual Networks
- Create and manage standard switches • Describe the virtual switch connection types
- Configure virtual switch security, traffic-shaping and load-balancing policies

- Compare vSphere distributed switches and standard switches 6 Configuring and Managing Virtual Storage
- Identify storage protocols and storage device types • Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage
- Create and manage VMFS and NFS datastores • Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage
- Deploy virtual machines on a VMware vSAN™ datastore 7 Virtual Machine Management
- Use templates and cloning to deploy new virtual machines • Modify and manage virtual machines
- Create a content library and deploy virtual machines from templates in the library • Dynamically increase the size of a virtual disk
- Use customization specification files to customize a new virtual machine
- Perform vSphere vMotion and vSphere Storage vMotion migrations • Create and manage virtual machine snapshots
- Examine the features and functions of VMware vSphere® Replication™ 8 Resource Management and Monitoring
- Discuss CPU and memory concepts in a virtualized environment • Describe what overcommitment of a resource means
- Describe methods for optimizing CPU and memory usage • Use various tools to monitor resource use
- Create and use alarms to report certain conditions or events 9 vSphere Clusters
- Describe options for making a vSphere environment highly available • Explain the vSphere HA architecture
- Configure and manage a vSphere HA cluster • Examine the features and functions of VMware vSphere® Fault Tolerance
- Configure a vSphere cluster using ESXi Cluster Quickstart • Describe the functions of a vSphere DRS cluster
- Create a vSphere DRS cluster 10 vSphere Lifecycle Management • Describe how VMware vSphere® Lifecycle Manager™ works
- Use vSphere Lifecycle Manager to update ESXi hosts in a cluster

## Session Dates

On request. Please [contact us](#)

## Additional Information

[This training is also available as onsite training. Please contact us to find out more.](#)