NWA046: VMware vSphere: Install, Configure, Manage [V7.0]

Overview:
This 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:
- Describe the software-defined data center
- Deploy an ESXi host and create virtual machines
- Describe vCenter Server architecture
- Deploy a vCenter Server instance or VMware vCenter Server™ Appliance™
- Use vCenter Server to manage an ESXi host
- Configure and manage vSphere infrastructure with VMware vSphere® Client™ and VMware vSphere® Web Client
- Configure virtual networks with vSphere standard switches
- Use vCenter Server to manage various types of host storage: VMware vSphere® VMFS, NFS, virtual SAN, and Virtual Volumes
- Manage virtual machines, templates, clones, and snapshots
- Create a vApp
- Describe and use the content library
- Migrate virtual machines with VMware vSphere® vMotion®
- Use VMware vSphere® Storage vMotion® to migrate virtual machine storage
- Monitor resource usage and manage resource pools
- Use VMware vRealize™ Operations Manager™ to identify and solve issues through analytics and alerts
- Manage VMware vSphere® High Availability and VMware vSphere® Fault Tolerance
- Use VMware vSphere® Replication™ and VMware vSphere® Data Protection™ to replicate virtual machines and perform data recovery
- Use vSphere distributed switches to improve network scalability
- Use VMware vSphere® Update Manager™ to apply patches and perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server operations
- Use VMware vSphere® High Availability and VMware vSphere® Fault Tolerance
- Use VMware vSphere® Distributed Resource Scheduler™ clusters to improve host scalability
- Use VMware vSphere® Update Manager™ to apply patches and perform basic troubleshooting of ESXi hosts, virtual machines, and vCenter Server operations

Intended Audience:
- System administrators
- Systems engineers

Prerequisites
System administration experience on Microsoft Windows or Linux operating systems

Outline:
1) Course Introduction
   o Introductions and course logistics
   o Course Objectives

2) Introduction to vSphere and the Software-Defined Data Center
   o Explain basic virtualization concepts
   o Describe how vSphere fits into the software-defined data center and the cloud infrastructure
   o Explain how vSphere interacts with CPUs, memory, networks, and storage
   o Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts
   o 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 over commitment 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 Cluster
   - 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
    - Describe how VMware vSphere Lifecycle Manager™ works
    - Use vSphere Lifecycle Manager to update ESXi hosts in a cluster
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- MASTER OF BUSINESS ADMINISTRATION (EXECUTIVE) DEGREE
  SASIN GRADUATE INSTITUTE OF BUSINESS ADMINISTRATION OF
  CHULALONGKORN UNIVERSITY
- MASTER OF SCIENCE, MAJOR IN INFORMATION
  Technology Faculty of Information Technology
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- Microsoft Certified professional (MCP)
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- Certified Hacking Forensic Investigator
- Certified Wireless Network Administrator
- Certified Wireless Security Professional

จำนวนชั่วโมงในการฝึกอบรม: 5 วัน (30 ชั่วโมง)

กำหนดการอบรม: ตามตารางปฏิทินอบรมประจําปี https://www.career4future.com/trainingprogram

ช่วงเวลาฝึกอบรม: 9.00 - 16.00 น.

ค่าลงทะเบียนอบรม: ท่านละ 23,500 บาท (ราคารวมภาษีมูลค่าเพิ่มแล้ว)

** สถาบันฯ เป็นหน่วยงานราชการ จึงไม่เคยถูกหักภาษี ณ ที่จ่าย

สถานที่ฝึกอบรม:
สถาบันพัฒนาบุคลากรแห่งอนาคต
เลขที่ 73/1 อาคารสำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ (สวทช.) ชั้น 6 ถนนพระรามที่ 6 แขวงทุ่งพญาไท เขตราชเทวี กรุงเทพฯ 10400

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