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# VMware vSphere: Operate, Scale and Secure [V8]

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## Zakres tematyczny

### 1 Course Introduction

- Introductions and course logistics
- Course objectives

### 2 Virtual Machine Operations

- Recognize the role of a VMware Tools Repository
- Configure a VMware Tools Repository
- Recognize the backup and restore solution for VMs
- Identify the components in the vSphere Replication architecture
- Deploy and configure vSphere Replication
- Recover replicated VMs

### 3 vSphere Cluster Operations

- Create and manage resource pools in a cluster
- Describe how scalable shares work
- Describe the function of the vCLS
- Recognize operations that might disrupt the healthy functioning of vCLS VMs



#### 4 Network Operations

- Configure and manage vSphere distributed switches
- Describe how VMware vSphere Network I/O Control enhances performance
- Explain distributed switch features such as port mirroring and NetFlow
- Define vSphere Distributed Services Engine
- Describe the use cases and benefits of vSphere Distributed Services Engine

#### 5 Storage Operations

- Discuss vSphere support for NVMe and iSER technologies
- Describe the architecture and requirements of vSAN configuration
- Describe storage policy-based management
- Recognize components in the vSphere Virtual Volumes architecture
- Configure Storage I/O Control

#### 6 vCenter and ESXi Operations

- Create a vCenter backup schedule
- Recognize the importance of vCenter High Availability
- Explain how vCenter High Availability works
- Use host profiles to manage ESXi configuration compliance
- Use the vSphere client to manage vSphere certificates

#### 7 vSphere Monitoring

- Monitor the key factors that can affect a virtual machine's performance
- Describe the factors that influence vCenter performance
- Use vCenter tools to monitor resource use
- Create custom alarms in vCenter

- Describe the benefits and capabilities of VMware Skyline
- Recognize uses for Skyline Advisor Pro

#### 8 vSphere Security and Control Access

- Recognize strategies for securing vSphere components, such as vCenter, ESXi hosts, and virtual machines
- Describe vSphere support for security standards and protocols
- Describe identity federation and recognize its use cases
- Configure identity federation to allow vCenter to use an external identity provider

#### 9 vSphere Trusted Environments and VM Encryption

- Configure ESXi Host Access and Authentication
- Describe virtual machine security features
- Describe the components of a VM encryption architecture
- Create, manage, and migrate encrypted VMs
- List VM encryption events and alarms
- Describe the benefits and use cases of vSphere Trust Authority
- Configure vSphere Trust Authority