

KOENIG SOLUTIONS • COURSE OUTLINE

Mastering Hyper-V and SCVMM

7 Days

56 HOURS

22

MODULES

55

TOPICS

LEARNING OBJECTIVES

- Plan a virtualization infrastructure and assess candidates
- Configure Hyper-V hosts, virtual networks and virtual hard disks
- Create and manage virtual machines, snapshots and import/export
- Implement Live Migration, Storage Migration and Network Virtualization
- Optimise Hyper-V performance through memory, processor and NUMA settings
- Configure failover clustering, cluster sets and stretched clusters
- Implement Hyper-V Replica and Azure Site Recovery for disaster recovery
- Manage SCVMM fabric, private clouds, services and VMware migration

22 Modules, 55 Topics

DAY 01 Introduction & Hyper-V Fundamentals

8 hours

01

2 hours

Planning for Virtualization

TOPICS

Overview of Microsoft Virtualization · Assessing virtualization candidates · Planning for a virtualization infrastructure

02

3 hours

Implementing Server Virtualization with Hyper-V

TOPICS

Installing and configuring Hyper-V · Managing virtual machine storage · Managing virtual networks

03

3 hours

Creating and Configuring Virtual Hard Disks & Virtual Machines

TOPICS

Virtual Hard Disk (VHD/VHDX) types · Creating and configuring virtual machines · Virtual machine snapshots and import/export

DAY 02 Advanced Hyper-V Features

8 hours

04

3 hours

Configuring Hyper-V Networking

TOPICS

Advanced features of virtual network adapters · Hyper-V Network Virtualization · Hyper-V Extensible Switch

05

3 hours

Hyper-V Migration

TOPICS

- Overview of Live Migration and Storage Migration
- Live Migration security considerations
- Live Migration using SMB

06**2 hours**

Hyper-V Host and VM Management

TOPICS

Hyper-V host management best practices · VM configuration versions · Windows Admin Center for Hyper-V management

DAY 03

Hyper-V Performance & High Availability

8 hours

07**3 hours**

Hyper-V Performance Optimization

TOPICS

Memory management in Hyper-V · Virtual machine processor configurations · NUMA (Non-Uniform Memory Access)

08**3 hours**

Hyper-V Advanced Features

TOPICS

Discrete Device Assignment (DDA) support · Virtual Persistent Memory (vPMEM) · Enhanced Session Mode

09**2 hours**

Hyper-V Failover & Clustering

TOPICS

- Failover Clustering in Hyper-V
- Live Migration between Windows Server 2019 & 2022

DAY 04

Hyper-V High Availability & Disaster Recovery

8 hours

10**3 hours**

Hyper-V Cluster Advanced Features

TOPICS

Cross-domain cluster migrations · Azure-aware clusters · Stretched clusters

11**2 hours**

Cluster Set Theory & Implementation

TOPICS

- Understanding cluster sets
- Planning and configuring clustered environments

12**3 hours**

Hyper-V Backup & Disaster Recovery

TOPICS

- Implementing Hyper-V Replica
- Configuring Azure Site Recovery
- Protecting virtualization infrastructure with Data Protection Manager

DAY 05

Introduction to SCVMM

8 hours

13**3 hours**

Installing and Configuring SCVMM

TOPICS

- Overview of System Center Virtual Machine Manager
- Installing and configuring SCVMM
- SCVMM console and role-based access

14**3 hours**

Managing Storage Fabric and Updates

TOPICS

Storage classifications and management · Integrating storage with SCVMM

15**2 hours**

Configuring SCVMM Library and Templates

TOPICS

Managing VM templates · Configuring and using SCVMM library objects

DAY 06

SCVMM Networking & Cloud Management

8 hours

16**3 hours**

Managing SCVMM Networking Fabric

TOPICS

Logical networks, IP pools, and VM networks · Network isolation and SCVMM integration

17**3 hours**

VM Deployment and Management in SCVMM

TOPICS

Creating and deploying VMs · Managing VM workloads in SCVMM

18**2 hours**

Managing Private Clouds in SCVMM

TOPICS

Configuring and managing private clouds · Cloud quotas and delegated administration

DAY 07

SCVMM Advanced Management & Migration

8 hours

19**2 hours**

Managing Services in SCVMM

TOPICS

Deploying and managing service templates · Automated deployment with SCVMM

20**2 hours**

Monitoring Virtualization with SCOM

TOPICS

- Integrating SCVMM with System Center Operations Manager
- Performance monitoring and alerting

21**2 hours**

VMware to Hyper-V Migration

TOPICS

- Planning and executing VMware-to-Hyper-V migration
- Best practices for workload conversion

22**2 hours**

Patching and Maintenance in SCVMM

TOPICS

SCVMM patching strategies · Windows Admin Center integration

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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✉ info@koenig-solutions.com