KOENIG
step forward

Microsoft Solutions Partner
Microsoft Cloud Training Services

KOENIG SOLUTIONS · COURSE OUTLINE

Bootcamp: Modern Datacenter Administration

15 Days	25	89
DURATION	MODULES	TOPICS

15 days Regular Track; 8 days Fast Track

LEARNING OBJECTIVES

- Deploy and manage Active Directory Domain Services and GPOs
- Implement hybrid identity and Azure Active Directory domain controllers
- Administer Windows Servers and hybrid workloads using Azure Arc
- Configure and secure Hyper-V and container workloads such as Kubernetes
- Implement on-premises and hybrid networking including DHCP, DNS and IPAM
- Configure storage and file services such as Storage Spaces Direct
- Automate administration using Windows PowerShell scripting and remoting
- Plan and implement Azure Stack HCI storage and networking

COURSE SYLLABUS

25 Modules, 89 Topics

Server

01

Deploy and Manage Identity Infrastructure (Windows Server)

TOPICS

- Introduction to AD DS
- Manage AD DS domain controllers and FSMO roles
- Implement Group Policy Objects
- Manage advanced features of AD DS

02

Deploy and Manage Identity Infrastructure

TOPICS

- Implement hybrid identity with Windows Server
- Deploy and manage Azure IaaS Active Directory domain controllers in Azure

03

Manage Windows Servers and Workloads in a Hybrid Environment

TOPICS

- Perform Windows Server secure administration
- Describe Windows Server administration tools
- Perform post-installation configuration of Windows Server
- Just Enough Administration in Windows Server

04

Manage Windows Servers and Workloads in a Hybrid Environment

TOPICS

- Administer and manage Windows Server IaaS Virtual Machine remotely
- Manage hybrid workloads with Azure Arc

05

Manage Virtualization and Containers in a Hybrid Environment

TOPICS

- Configure and manage Hyper-V
- Configure and manage Hyper-V virtual machines
- Secure Hyper-V workloads
- Run containers on Windows Server
- Orchestrate containers on Windows Server using Kubernete

06

Manage Virtualization and Containers in a Hybrid Environment

TOPICS

- Plan and deploy Windows Server IaaS Virtual Machines
- Customize Windows Server IaaS Virtual Machine images
- Automate the configuration of Windows Server IaaS Virtual Machines

07

Implement and Manage an on-premises and Hybrid Networking Infrastructure

TOPICS

Deploy and manage DHCP · Implement Windows Server DNS · Implement IP Address Management · Implement remote access

08

Implement and Manage an on-premises and Hybrid Networking Infrastructure

TOPICS

- Implement hybrid network infrastructure
- Implement DNS for Windows Server IaaS VMs
- Implement Windows Server IaaS VM IP addressing and routing

09

Configure Storage and File Services

TOPICS

- Manage Windows Server file servers
- Implement Storage Spaces and Storage Spaces Direct
- Implement Windows Server Data Deduplication
- Implement Windows Server iSCSI
- Implement Windows Server Storage Replica

10

Configure Storage and File Services

TOPICS

- Implement a hybrid file server infrastructure (Overview of Azure file services)
- Implement a hybrid file server infrastructure (Implementing Azure File Sync)

PowerShell

11

Getting Started with Windows PowerShell

TOPICS

- Review Windows PowerShell
- Understand the command syntax in Windows PowerShell
- Find commands and Get-Help in Windows PowerShell

12

Maintain System Administration Tasks in Windows PowerShell

TOPICS

- Manage Active Directory Domain Services using PowerShell cmdlets
- Manage network service settings for Windows devices using PowerShell cmdlets
- Manage Windows Server settings using PowerShell cmdlets
- Manage settings for a local Windows machine using PowerShell cmdlets

13

Work with the Windows PowerShell Pipeline

TOPICS

- Understand the Windows PowerShell pipeline
- Select, sort, and measure objects using the pipeline
- Filter objects out of the pipeline
- Enumerate objects in the pipeline
- Send pipeline data as output
- Pass pipeline data

14

Work with PowerShell Providers and PowerShell Drives in Windows PowerShell

TOPICS

- Connect with data stores using PowerShell providers
- Use PowerShell drives in PowerShell

15

Query Management Information by Using Common Information Model and Windows Management Instrumentation

TOPICS

- Review CIM and WMI
- Query configuration information by using CIM and WMI
- Query and manipulate repository objects by using CIM and WMI methods

16

Use Variables, Arrays, and Hash Tables in Windows PowerShell Scripts

TOPICS

- Manage variables in Windows PowerShell scripts
- Work with arrays and hash tables in Window PowerShell scripts

17

Create and Modify Scripts by Using Windows PowerShell

TOPICS

- Create and run scripts by using Windows PowerShell
- Work with scripting constructs in Windows PowerShell
- Import data in different formats for use in scripts by using Windows PowerShell cmdlets
- Use methods to accept user inputs in Windows PowerShell scripts
- Troubleshoot scripts and handle errors in Windows PowerShell
- Use functions and modules in Windows PowerShell scripts

18

Administer Remote Computers by Using Windows PowerShell

TOPICS

- Manage single and multiple computers by using Windows PowerShell remoting
- Use advanced Windows PowerShell remoting techniques
- Manage persistent connections to remote computers by using Windows PowerShell sessions

19

Manage Cloud Resources by Using Windows PowerShell

TOPICS

- Review the Azure PowerShell module
- Review the features and tools for Azure Cloud Shell
- Manage Azure resources with Windows PowerShell

20

Manage Microsoft 365 Services by Using Windows PowerShell

TOPICS

- Manage users, groups, and licenses in Azure AD by using Windows PowerShell
- Manage Exchange Online by using Windows PowerShell
- Manage SharePoint Online by using Windows PowerShell
- Manage Microsoft Teams by using Windows PowerShell

21

Create and Manage Background Jobs and Scheduled Jobs in Windows PowerShell

TOPICS

- Create and manage background jobs using Windows PowerShell
- Create and manage scheduled jobs using Windows PowerShell

HCI

22

Introducing Azure Stack HCI

TOPICS

- Overview of Azure Stack HCI
- Overview of Azure Stack HCI technologies
- Overview of Azure Stack HCI management tools
- Overview of the Azure Stack HCI hybrid capabilities

23

Operating and Maintaining Azure Stack HCI

TOPICS

- Implementing and managing workloads on Azure Stack HCI
- Maintaining Azure Stack HCI

24

Planning for and Implementing Azure Stack HCI Storage

TOPICS

- Overview of Azure Stack HCI Storage core technologies
- Planning for Storage Spaces Direct in Azure Stack HCI
- Implementing a Storage Spaces Direct-based hyper-converged infrastructure
- Managing Storage Spaces Direct in Azure Stack HCI
- Planning for and implementing Storage QoS
- Planning for and implementing Storage Replica

25

Planning for and Implementing Azure Stack HCI Networking

TOPICS

- Overview of Azure Stack HCI core networking technologies
- Overview of network virtualization and Software-Defined Networking
- Planning for and implementing Switch Embedded Teaming
- Planning for and implementing Datacenter Firewall
- Planning for and implementing Software Load Balancing

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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