COURSE OUTLINE

MS-AZ1010: DEPLOY AND MANAGE AZURE ARC-ENABLED SERVERS

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
1 Day	Intermediate	Azure	Instructor-led	NA

INTRODUCTION

In this learning path, you're introduced to Azure Arc-enabled servers. You'll cover Arc-enabled server deployment, updates to Arc-enabled servers using Azure Update Manager and configuring Microsoft Defender for Cloud for Azure Arc-enabled servers.

AUDIENCE PROFILE

This course is designed for is designed for IT professionals who have experience with both cloud and on-premises management platforms. Here are the key audience characteristics:

- Experience with Azure.
- Familiarity with creating resources using the Azure portal.
- Experience managing virtual machines (VMs) and databases as if they are running in Azure.
- Cloud and On-Premises Management.
- Knowledge of managing hybrid and multi-cloud environments.
- Experience with automating tasks using PowerShell and the Azure CLI.
- Security and Governance.
- Understanding of security concepts such as identities, permissions, and encryption.

PREREQUISITES

Before attending this course, delegates must have:

- Experience using the Azure portal to create resources.
- Basic knowledge of security concepts like identities, permissions, and encryption.
- Basic knowledge of networking concepts like virtual networks, subnetting, and hybrid scenarios.
- Basic knowledge of Azure Policy and Azure Arc concepts.

COURSE OBJECTIVES

After completing this course, delegates will be able to:

- Describe the characteristics of Azure Arc-enabled servers and the Connected Machine agent.
- Describe the capabilities, benefits, and use cases of Azure Arc-enabled servers for security, monitoring, and governance.

COURSE CONTENT

Module 1: Introduction to Azure Arc-enabled servers

This module introduces you to Azure Arc-enabled servers and describes its characteristics, capabilities, and use cases.

Lessons

- Introduction
- What are the characteristics of Azure Arc-enabled servers?
- What are the core management and governance capabilities of Azure Arc-enabled
- servers?
- What are the security and monitoring capabilities of Azure Arc-enabled servers?
- Summary

By the end of this module, you'll be able to:

- What are the characteristics of Azure Arc-enabled servers?
- What are the core capabilities of Azure Arc-enabled servers?
- How can you simplify management and maintenance of Azure Arc-enabled servers?

Module 2: Plan and deploy Azure Arc-enabled servers at scale

Azure Arc promises to bridge the gap between on-premises and cloud environments. Azure Arc-enabled servers extend the consistent security, observability, and governance of the Azure platform to non-Azure machines.

In this module, you'll learn about planning and securely deploying Azure Arc-enabled servers at scale.

Lessons

- Introduction
- What is Azure Arc-enabled servers and its capabilities?
- Test Azure Arc-enabled servers capabilities using Azure VMs
- Planning considerations for a secure configuration
- Explore different methods to onboard servers at scale to Azure Arc
- Best practices for Azure Arc-enabled servers management and services in Azure
- Knowledge check

- Summary

By the end of this module, you'll be able to:

- Understand Azure Arc's built-in and supplemental security functions.
- Evaluate different deployment and testing channels for Azure Arc-enabled servers.
- Apply best practices for Azure Arc-enabled servers' architecture and management.

Module 3: Govern your hybrid and multi-cloud machines through Azure Arc-enabled servers

Azure Arc promises to bridge the gap between on-premises and cloud environments. Azure Arc extends the consistent security, observability, and governance of the Azure platform to non-Azure machines. In this module, you learn about governance of Azure Arc-enabled servers.

Lessons

- Introduction
- Govern Azure Arc-enabled servers with Azure Policy Guest Configuration
- Assign Azure Policies to govern Azure Arc-enabled servers
- Azure Automanage best practices for Azure Arc-enabled servers
- Modernize deployment, response, and orchestration of Azure Arc-enabled servers with Azure Automation
- Knowledge check
- Summary

By the end of this module, you'll be able to:

- Understand the usage of Azure Policy and Guest Configuration with Azure Arc-enabled servers
- Evaluate different Azure Automation offerings across inventory management, change tracking, and update management
- Understand the onboarding process for and benefits of using Azure Automanage with Azure Arc-enabled servers

Module 4: Configure updates of Azure Arc-enabled servers by using Azure Update Manager

Update Manager is a unified service that helps manage and govern updates for all your machines. It allows you to monitor Windows and Linux update compliance across Azure and on-premises from a single dashboard.

Lessons

- Introduction
- Azure Update Manager
- Azure Update Manager key features
- How to manage updates for Azure Arc-enabled servers
- Create a maintenance configuration schedule
- Associate a virtual machine with a schedule
- Knowledge check
- Summary

By the end of this module, you'll be able to:

- Explain Azure Update Manager key features.
- Understand how to manage updates for Azure Arc-enabled servers.
- Create a maintenance configuration schedule.
- Associate a VM with a schedule.

Module 5: Configure Microsoft Defender for Cloud for Azure Arc-enabled servers

By the end of this module, you'll understand how Microsoft Defender for Cloud for Azure Arc-enabled servers can help you protect your cloud-based applications from various cyber threats.

Lessons

- Introduction
- What is Microsoft Defender for Cloud?
- Secure cloud applications
- Protect cloud workloads
- Connect your non-Azure machines to Microsoft Defender for Cloud
- Connect on-premises machines by using Azure Arc
- Connect on-premises machines by using the Azure portal
- Onboard a Windows server
- Onboard a Linux server
- Verify that your machines are connected
- Knowledge check
- Summary

By the end of this module, you'll be able to:

- Explain Microsoft Defender for Cloud.
- Secure cloud applications with Defender for Cloud.
- Protect cloud workloads with Defender for Cloud.
- Connect your non-Azure machines to Microsoft Defender for Cloud.
- Connect on-premises machines by using Azure Arc.
- Connect on-premises machines by using the Azure portal.
- Onboard a Windows server.
- Onboard a Linux server.

Module 6: Manage Azure Arc-enabled servers by using scripting

This module covers the topic of enabling Azure Arc for Windows or Linux machines in your environment. Enabling Arc-enabled servers is done either manually or by using an automated method with a provided template script.

Lessons

- Introduction
- Connect hybrid machines to Azure using a deployment script
- Connect hybrid machines to Azure by using PowerShell
- Connect machines at scale by running PowerShell scripts with Configuration Manager
- Knowledge check
- Summary

By the end of this module, you'll be able to:

- Connect hybrid machines to Azure using a deployment script
- Connect hybrid machines to Azure by using PowerShell
- Connect machines at scale by running PowerShell scripts with Configuration Manager

Module 7: Guided exercise - Manage on-premises Windows servers by using Azure Arc

In this guided exercise, you practice onboarding, securing, monitoring, and updating on-premises Windows servers by using Azure Arc. The guided exercise combines both learning and hands-on practice.

Lessons

- Introduction
- Exercise 1 - Onboard Windows servers to Azure Arc
- Exercise 2 - Manage Azure Arc-enabled Windows servers by using Azure Policy
- Exercise 3 - Enhance security of Azure Arc-enabled Windows servers by using Microsoft Defender for Cloud
- Exercise 4 - Monitor Azure Arc-enabled Windows servers by using Azure Monitor
- Exercise 5 - Manage updates of Azure Arc-enabled Windows servers by using Azure Update Manager
- Exercise 6 - Configure on-premises Windows servers by using Azure virtual machine

- extensions and CLI
- Knowledge check
- Summary

By the end of this module, you'll be able to:

- Onboarding Windows servers to Azure Arc
- Managing Azure Arc-enabled Windows servers by using Azure Policy
- Enhancing security of Azure Arc-enabled Windows servers by using Microsoft Defender for Cloud
- Monitoring Azure Arc-enabled Windows servers by using Azure Monitor
- Managing updates of Azure Arc-enabled Windows servers by using Azure Update Manager
- Configuring on-premises Windows servers by using Azure VM extensions and CLI

ASSOCIATED CERTIFICATIONS & EXAM

There is no Associated Certification & Exam for this course, however, there is an assessment to achieve your Applied Skills credential. (Link)