AZ-801: Configure Windows Server Hybrid Advanced Services

Microsoft - Azure Apps & Infrastructure

- **Nível:** Intermédio
- **Duração:** 28h

Sobre o curso

This course teaches IT Professionals to configure advanced Windows Server services using on-premises, hybrid, and cloud technologies.

The course teaches IT Professionals how to leverage the hybrid capabilities of Azure, how to migrate virtual and physical server workloads to Azure IaaS, and how to secure Azure VMs running Windows Server. The course also teaches IT Professionals how to perform tasks related to high availability, troubleshooting, and disaster recovery. The course highlights administrative tools and technologies including Windows Admin Center, PowerShell, Azure Arc, Azure Automation Update Management, Microsoft Defender for Identity, Azure Security Center, Azure Migrate, and Azure Monitor

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Destinatários

This four-day course is intended for Windows Server Hybrid Administrators who have experience working with Windows Server and want to extend the capabilities of their on-premises environments by combining on-premises and hybrid technologies. Windows Server Hybrid Administrators who already implement and manage on-premises core technologies want to secure and protect their environments, migrate virtual and physical workloads to Azure Iaas, enable a highly available, fully redundant environment, and perform monitoring and troubleshooting.

Objetivos

Students will learn to,

- Secure Windows Server user accounts
- Hardening Windows Server
- Windows Server update management
- Secure Windows Server DNS
- Implement Windows Server IaaS VM network security

- Audit the security of Windows Server IaaS Virtual Machines
- Manage Azure updates
- Create and implement application allowlists with adaptive application control
- Configure BitLocker disk encryption for Windows IaaS Virtual Machines
- Implement change tracking and file integrity monitoring for Windows IaaS VMs
- Introduction to Cluster Shared Volumes
- Implement Windows Server failover clustering
- Implement high availability of Windows Server VMs
- Implement Windows Server File Server high availability
- Implement scale and high availability with Windows Server VM
- Implement Hyper-V Replica
- Protect your on-premises infrastructure from disasters with Azure Site Recovery
- Implement hybrid backup and recovery with Windows Server IaaS
- Protect your Azure infrastructure with Azure Site Recovery
- Protect your virtual machines by using Azure Backup
- Active Directory Domain Services migration
- Migrate file server workloads using Storage Migration Service
- Migrate Windows Server roles
- Migrate on-premises Windows Server instances to Azure IaaS virtual machines
- Upgrade and migrate Windows Server IaaS virtual machines
- Containerize and migrate ASP.NET applications to Azure App Service
- Monitor Windows Server performance
- Manage and monitor Windows Server event logs
- Implement Windows Server auditing and diagnostics
- Troubleshoot Active Directory
- Monitor Windows Server IaaS Virtual Machines and hybrid instances
- Monitor your Azure virtual machines with Azure Monitor
- Troubleshoot on-premises and hybrid networking
- Troubleshoot Windows Server Virtual Machines in Azure

Pré-requisitos

Before attending this course, students must have:

- Experience with managing Windows Server operating system and Windows Server workloads in on-premises scenarios, including AD DS, DNS, DFS, Hyper-V, and File and Storage Services
- Experience with common Windows Server management tools (implied in the first prerequisite).
- Basic knowledge of core Microsoft compute, storage, networking, and virtualization technologies (implied in the first prerequisite).
- Experience and an understanding of core networking technologies such as IP addressing, name resolution, and Dynamic Host Configuration Protocol (DHCP)
- Experience working with and an understanding of Microsoft Hyper-V and basic server virtualization concepts
- An awareness of basic security best practices

- Basic understanding of security-related technologies (firewalls, encryption, multi-factor authentication, SIEM/SOAR).
- Basic knowledge of on-premises resiliency Windows Server-based compute and storage technologies (Failover Clustering, Storage Spaces).
- Basic experience with implementing and managing IaaS services in Microsoft Azure
- Basic knowledge of Azure Active Directory
- Experience working hands-on with Windows client operating systems such as Windows 10 or Windows 11
- Basic experience with Windows PowerShell

An understanding of the following concepts as related to Windows Server technologies:

- High availability and disaster recovery
- Automation
- Monitoring
- Troubleshooting

Programa

- Secure Windows Server on-premises and hybrid infrastructures
- Implement Windows Server high availability
- Implement disaster recovery in Windows Server on-premises and hybrid environments
- Migrate servers and workloads in on-premises and hybrid environments
- Monitor and troubleshoot Windows Server environments

Secure Windows Server on-premises and hybrid infrastructures

Learn to secure your on-premises Windows Server resources and your Azure IaaS workloads. Determine if those resources have any security vulnerabilities, and remediate those potential security vulnerabilities.

- Implement Windows Server IaaS VM network security
- Audit the security of Windows Server IaaS Virtual Machines
- Manage Azure updates
- Create and implement application allowlists with adaptive application control
- Configure BitLocker disk encryption for Windows IaaS Virtual Machines
- Implement change tracking and file integrity monitoring for Windows IaaS VMs
- Secure Windows Server DNS
- Secure Windows Server user accounts
- Hardening Windows Server
- Windows Server update management

Implement Windows Server high availability

Learn to implement high availability Windows Server virtual machine (VM) workloads with Hyper-V Replica, Windows Server Failover Clustering, and Windows Server File Server high availability.

- Introduction to Cluster Shared Volumes

- Implement Windows Server failover clustering
- Implement high availability of Windows Server VMs
- Implement Windows Server File Server high availability
- Implement scale and high availability with Windows Server VM

Implement disaster recovery in Windows Server on-premises and hybrid environments

Learn how to use Hyper-V Replica to provide an affordable BCDR solution for a virtual environment. Learn also how to implement Azure Site Recovery for in on-premises scenarios and to protect your Azure infrastructure.

- Implement Hyper-V Replica
- Implement hybrid backup and recovery with Windows Server IaaS
- Protect your on-premises infrastructure from disasters with Azure Site Recovery
- Protect your Azure infrastructure with Azure Site Recovery
- Protect your virtual machines by using Azure Backup

Migrate servers and workloads in on-premises and hybrid environments

Learn to migrate a workload running in Windows Server to an infrastructure as a service (IaaS) virtual machine (VM) and to Windows Server by using Windows Server migration tools or the Storage Migration Service.

- Migrate on-premises Windows Server instances to Azure IaaS virtual machines
- Upgrade and migrate Windows Server IaaS virtual machines
- Active Directory Domain Services migration
- Migrate file server workloads using Storage Migration Service
- Migrate Windows Server roles
- Containerize and migrate ASP.NET applications to Azure App Service

Monitor and troubleshoot Windows Server environments

Learn to use monitoring and troubleshooting tools, processes, and best practices to streamline app performance and availability of your Windows Server environment and your Windows Server IaaS VMs and hybrid instances.

- Monitor Windows Server IaaS Virtual Machines and hybrid instances
- Monitor your Azure virtual machines with Azure Monitor
- Monitor Windows Server performance
- Manage and monitor Windows Server event logs
- Implement Windows Server auditing and diagnostics
- Troubleshoot on-premises and hybrid networking
- Troubleshoot Windows Server Virtual Machines in Azure
- Troubleshoot Active Directory