Azure Backup and Disaster Recovery Specialist - Cloud Backup Administrator

Duration: 6 days – 48 hrs

Note: Best view of the document in Web Layout mode.

Understanding Azure Subscription and Entra ID

Azure Architecture (Logical and Physical – Key Benefits) and Design Principles
Azure WAF (Well Architected Framework) and CAF (Cloud Adoption Framework)
Understanding Storage Architecture in Azure (in context to backup)
About Virtual Networks
Vnet Networking, Network Connectivity types (Vnet Peering, S2S VPN, P2S VPN, Express Route)
Basics of Service Endpoint, Private Endpoint, Private Link (reference diagrams)
Detailed Understanding for Entra ID (Editions, Features, Managing Identities, Authentication, Authorization, Zero Trust, Security, Governance and Compliance)
Explore identity in Microsoft Entra ID
Implement an identity management solution
Implement an Authentication and Access Management solution
Plan and implement an identity governance strategy
B2B and B2C Identities

Labs:

Microsoft Identity and Access Administrator

Manage user roles
Configure external collaboration settings
Add guest users to the directory
Enable multi-factor authentication
Configure and deploy self-service password reset
Implement and test a conditional access policy
Manage the lifecycle of external users in Microsoft Entra Identity Governance settings

Assign Azure resource roles in Privileged Identity Management
Using Azure Key Vault for Managed Identities

Backup and disaster recovery for your data and applications in Azure

What is a disaster?
Not about avoiding failures, but responding to failures
What is resiliency?
Not about avoiding failures, but responding to failures
Types of failures you need resilience from
Why do you need a BCDR strategy?
What is the difference between Disaster recovery & backup?

Disaster Recovery concepts
The Business Value of Azure Site Recovery and Azure Backup

Overview of Azure Backup and Disaster Recovery

What is Azure Business Continuity Center (ABC Center) – (Azure Business Continuity Center is now Resiliency)?
Why should I use Azure Business Continuity Center?
What can I manage with ABC center?
Support matrix for Azure Business Continuity Center
- Supported solutions and data sources
- Supported scenarios
- Unsupported scenarios
- About Security levels

About Azure Backup

Reliability in Azure Backup
What does Azure Backup do?
How does Azure Backup work?
Where is data backed up?
Backup agents
Backup types
Backup features
Backup policy essentials
What can I back up?
Azure Backup architecture and components
- Architecture: Built-in Azure VM Backup
- Architecture: Direct backup of on-premises Windows Server machines or Azure VM files or folders
- Architecture: Back up to DPM/MABS
- Architecture: Azure VM storage
- Backup and restore Azure VMs with premium storage
- Backup and restore managed disks

Data isolation with Azure Backup (Vaulted Backup)
Pre-requisites for Azure Backup Service
Demo:
- **Getting familiar with the Azure backup service - walkthrough**

Types of Vault (Backup Vault and Recovery Service Vault)

Backup vaults overview
- Key features
- Storage settings in the Backup vault
- Encryption settings in the Backup vault
- Role-Based Access Control (RBAC) in Backup vault
- Cross Region Restore support for PostgreSQL using Azure Backup

Recovery Services vaults overview
- Key features
- Storage settings in the Recovery Services vault

Encryption settings in the Recovery Services vault
Azure Advisor

Demo:

Getting familiar with Azure Backup and Recovery Service Vault - walkthrough

Setting up and Managing Backup using Azure Backup Vault

Backup vault
Understanding various ways of creating Backup Vault
Understanding Managed Identities in context to Backup workloads
Role-Based Access Control (RBAC) in Backup vault
Create a Backup vault using Azure Business Continuity Center (now Resiliency)
Backup Workloads supported

Azure Blob backup
About Azure Blob backup
How the Azure Blobs backup works?
Choose the Backup Tier -Operational and Vaulted
Support matrix for Azure Blobs backup

Azure Disk Backup
About Azure Disk Backup
Key benefits of Disk Backup
How the backup and restore process works
How does the disk backup scheduling and retention period work?
Azure Disk Backup support matrix

Monitor and manage the Backup vault
Understanding Restoration procedures
Manage vault lifecycle used for Azure Backup (View vaults using Azure Business Continuity Center (now Resiliency)
Delete a Backup vault (Proper way to delete Backup Vault)

Demo:

Understanding components of Backup Vault (walkthrough with setup wizard)
Create backup protection policies for your resources
Backup and Restore Azure workloads (VM disks, Azure Blob Storage) using Backup Vault

Lab:

Backup and Restore Azure workloads (VM disks, Azure Blob Storage) using Backup Vault

Setting up and Managing Backup using Azure Recovery Service Vault

Recovery Service Vault
Understanding various ways of creating Recovery Service Vault
Understanding MARS Agent and its usage
Role-Based Access Control (RBAC) in Backup vault
Create a Recovery Service Vault using Azure Business Continuity Center (now Resiliency)

Backup Workloads supported
on Azure (VM's, File Share, SQL on Azure VM's, etc)
on OnPrem (Servers, Files – Folders, Bare Metal, System State, Exchange, Sharepoint, SQL, etc.)

Azure Files Backup
About Azure Files Backup
Key benefits of Azure Files backup
Architecture for Azure Files backup
Azure Files by using the backup tiers - Snapshot tier and Vault-Standard tier
How the backup process for Azure Files works?
How lease snapshot works?
How Cross Subscription Backup for Azure Files works?
Understanding MABS (Azure Backup Server)
Protection support matrix
Applications Backup
VM Backup
Linux
Unsupported data types
Monitor and manage the Recovery Service Vault
Understanding Restoration procedures
Manage vault lifecycle used for Azure Recovery Service Vault (View vaults using Azure Business Continuity Center (now Resiliency)
Delete a Recovery Service Vault (Proper way to delete Backup Vault)

Demo:

Understanding components of Recovery Service Vault (walkthrough with setup wizard)
Create backup protection policies for your resources
Backup and Restore Azure workloads (VM, File Share) using Recovery Service Vault
Backup and Restore On-Prem workloads using MARS agent (Hyper V VM)

Lab:

Backup and Restore Azure workloads (Azure VM's and Azure File Shares) using Recovery Service Vault
Backup and Restore On Prem Workloads (Files and Folders) using Recovery Service Vault

Disaster Recovery

Disaster Recovery (BC/DR)
About Azure Site Recovery
What does Site Recovery provide?
What can I replicate?
About role-based access control with Site Recovery

DR Architecture with Azure Site Recovery
Azure to Azure DR Architecture
Hyper V to Azure DR Architecture
VMware to Azure Architecture

- About disaster recovery for on-premises apps
  - Why use Site Recovery for application replication?
  - Workload summary (reference architectures)
    - Disaster recovery for Active Directory and DNS
    - Protect a file server by using Azure Site Recovery
    - Disaster recovery for a multi-tier IIS-based web application
- About Recovery Plans
  - What is Recovery Plan
  - Why use a recovery plan?
  - Understand Recovery Plan with a real scenario
- About Networking for DR
  - Azure Traffic Manager with Azure Site Recovery
  - Network Security Groups with Azure Site Recovery
- **Demo:**
  - **Azure to Azure DR Scenario**
  - **Hyper V to Azure Scenario**
- **Lab:**
  - **Azure to Azure DR**
  - **Hyper V to Azure DR**

Plan – Design – Architect – Best Practices

- What is the Azure Well-Architected Framework?
- Microsoft Azure Well-Architected Framework pillars
- Develop a disaster recovery plan for multi-region deployments
- Guidance and Best Practices: Backup cloud and on-premises workloads to cloud

Additional References

- Azure Backup glossary
- Script Samples
- Microsoft Q&A - Azure Backup