Microsoft Azure Administrator: Implement Backup and Recovery

WORKING WITH AZURE BACKUP SERVICES

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Course Coverage of Certification Objectives

Implement Backup and Recovery

- Create a Recovery Services Vault
- Create and configure backup policy
- Perform backup and restore operations by using Azure Backup Service
- Use soft delete to recover Azure VMs
- Configure and review backup reports
- Perform site-to-site recovery by using Azure Site Recovery

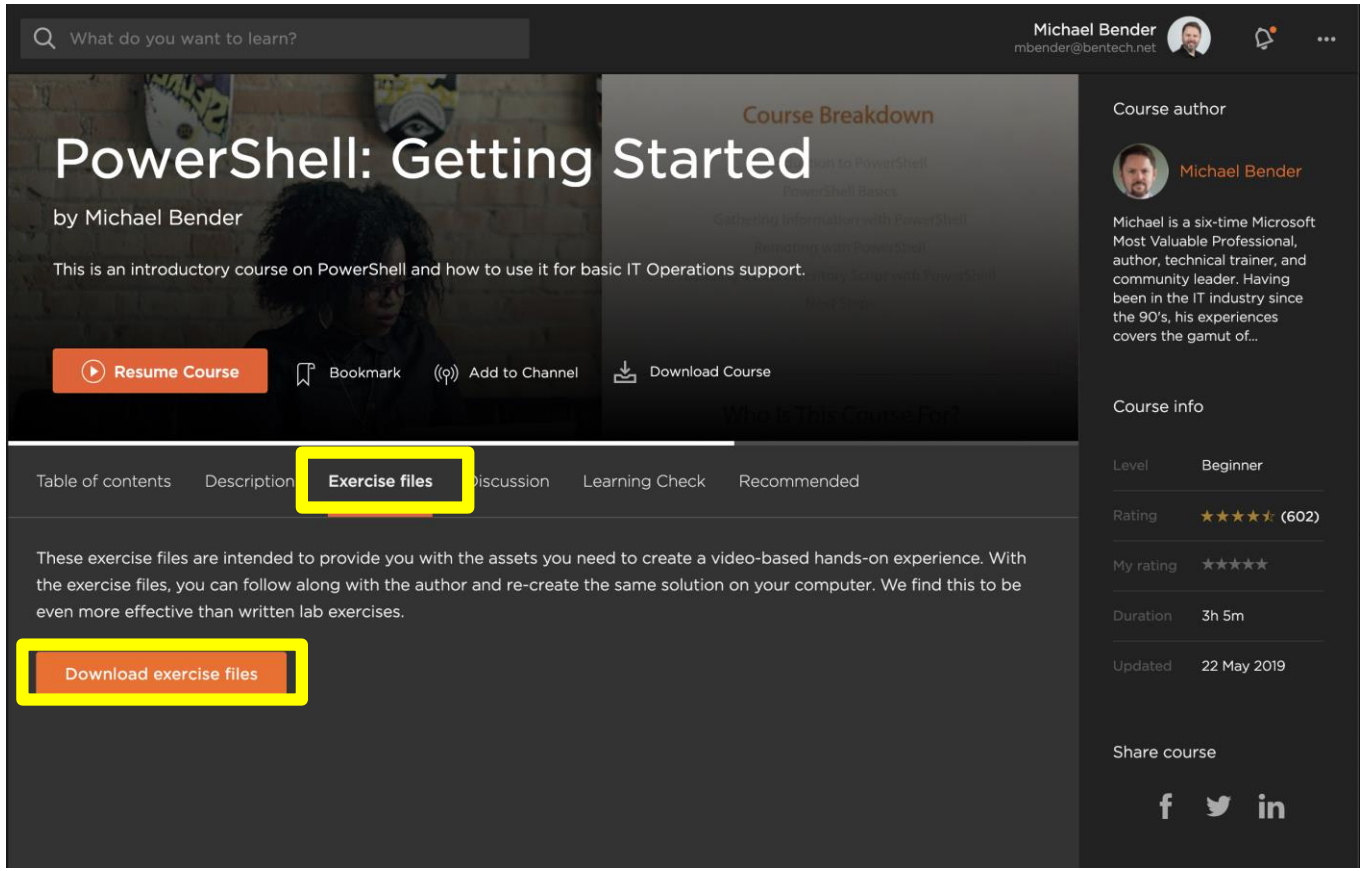
Full certification exam skills outline available at http://bit.ly/az104ms

Exercise Files

Slides

Code

Links to Resources



Business Continuity and Disaster Recovery

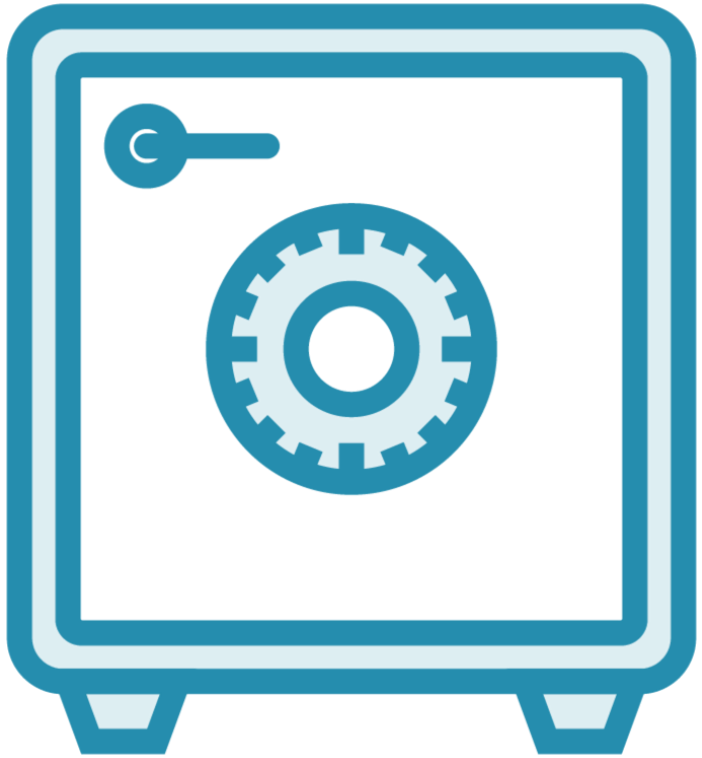
- File and folder recovery
- Virtual machine recovery
- Site-wide recovery
- Recovery point objective (RPO)
- Recovery time objective (RTO)

Backup and Disaster Recovery Options in Azure

Azure Backup

Azure Site Recovery

Recovery Service Vault



- Storage Entity for backup and recovery resources
- Centralized management
- Work with on-premises and cloud-based workloads.
- Backup resources in same region
- Site recovery resources in different region

Demo

Creating a Recovery Services Vault

Azure Backup

- Supports on-premises and Azure workloads
- Scales with your organization
- Centralized monitoring and management
- App-consistent backups
- Encrypted-at-rest by default
- Require resources and vault in same region

Backup Policy

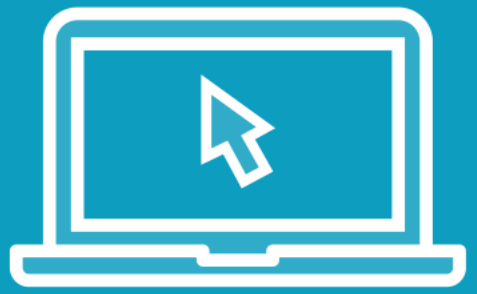
Stored in Recovery Services Vault

Defines how a backup plan is implemented

Implements RPO and RTO

Policy for each resource type

Demo



Create and Configure Backup Policy

Backup Agents

Manage recovery services between source and Recovery Services Vault

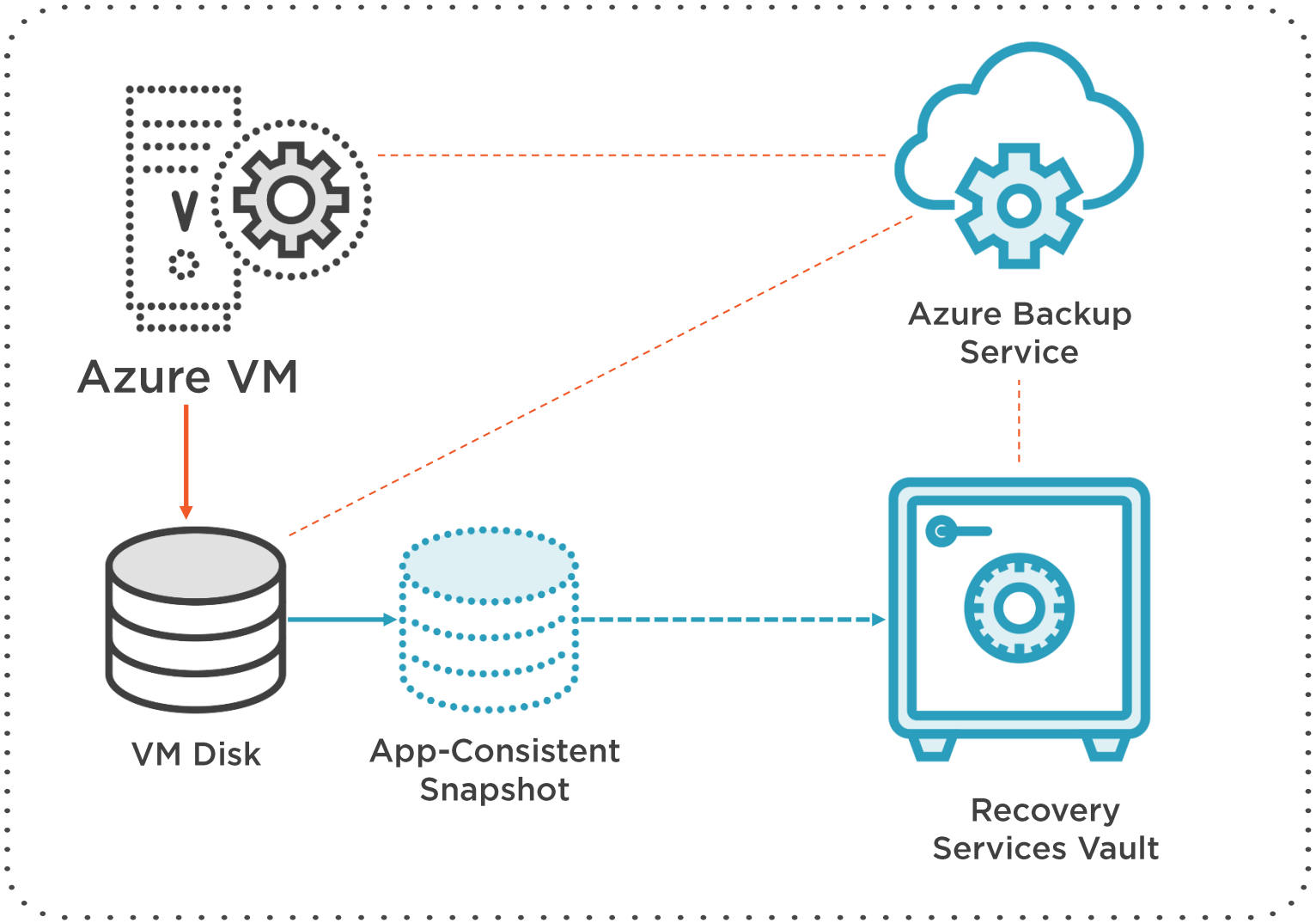
Azure Backup Extension

- All Azure VMs
- Installed on first backup

Microsoft Azure Recovery Services agent (Mars)

- On-Premises and AWS Windows VMs
- Supports various scenarios
- Download from Recovery Services Vault

Azure VM Backup Architecture



Demo

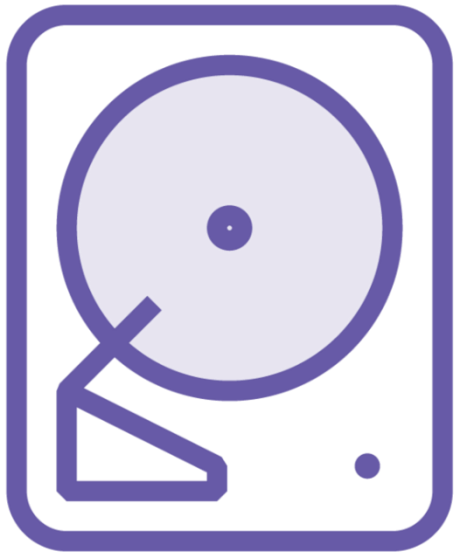
Backup an Azure VM

- Create a Backup
- Run Backup Manually

Azure VM Restore Options

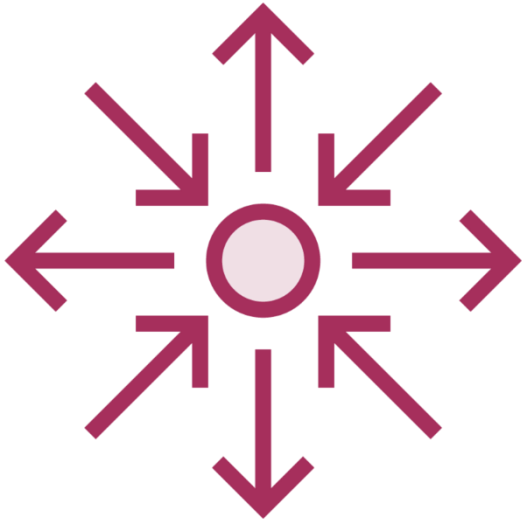
VM

Create new or replace



Disk

Files



Cross-Region Restore

Virtual Machine Soft Delete

- Protects against unintended VM deletions
- Stored for up to 14 days
- Requires a backup to have been completed
- Multiple tools for completing
- Disabling not recommended

Demo

Performing restores with Azure Backup

- Restore a full VM
- Restore files
- Recover with soft delete

Azure Files Backup

- Cloud-based backup for Azure Files
- Integrates with Azure File Sync
- Customized Retention
- Instant Restore
- Protection against accidently deletion with soft Delete
- Snapshot-based

Demo

Azure File Share Backup and Restore

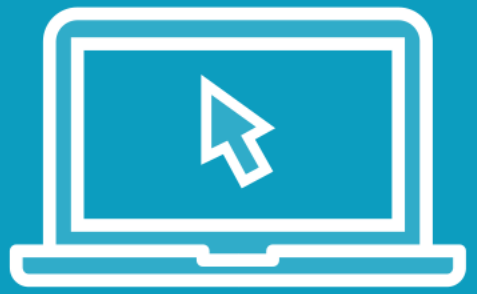
Configure Azure Backup Reports

Supports multiple source options

Requires a Log Analytics workspace

Configure through diagnostic settings

Demo



Configuring Azure Backup Reports

Implementing Azure Site Recovery

Implementing Azure Site Recovery

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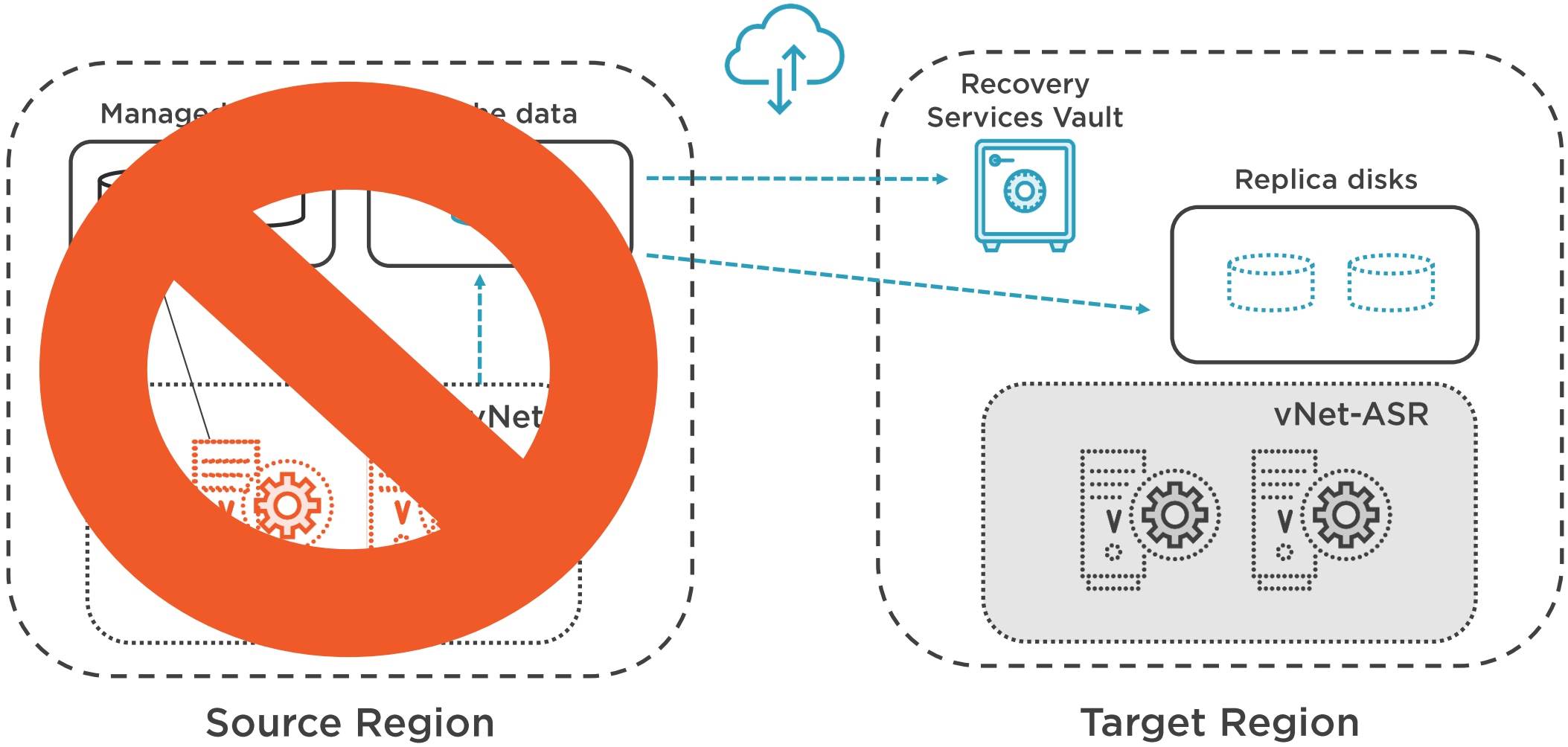
Azure Site Recovery

Designed for primary site outage

Replicates workloads

- On-Premises servers and virtualization hosts
- Azure Workloads
- AWS Windows VMs

Azure Site Recovery Topology



Demo

Setup up Azure Site Recovery for Azure VMs

Demo

Initiate Azure Site Recovery failover

Summary

- Recovery storage vaults only backup VMs in the same region
- Place Recovery Storage Vaults in a different region for ASR
- Use a different policy for each type of backup
- Use the MARS agent for On-Prem and AWS VM backups
- Review the CLI options
- Get some hands-on experience

For Further Learning

Azure Storage Accounts documentation at **docs.microsoft.com**
https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview

Creating and Configuring Microsoft Azure Storage Accounts by Neil Morrissey
https://www.pluralsight.com/courses/microsoft-azure-creating-configuring-storage-accounts

Remember the module exercise files

Questions? Join on the conversation at pluralsight.com or **@Michaelbender** on Twitter