WorkshopPLUS - SQL Server: AlwaysOn Availability Groups and Failover Cluster Instances - Setup and Configuration

WorkshopPLUS

Duration: 3 Day   [Remote / Onsite]
Difficulty Level: 300 - Advanced

Description

Learn how to set up and configure a High Availability (HA) and Disaster Recovery (DR) solution using Availability Groups and Failover Cluster Instances. You will employ all the necessary technical and architecture details to implement SQL Server AlwaysOn Availability Groups (AG) and Failover Cluster Instances (FCI).

Objectives

- Compare and understand HA and DR concepts
- Review Windows failover cluster and AlwaysOn design architecture.
- Deploy AGs to provide High Availably (HA) and Disaster Recovery (DR).
- Maximize hardware use by offloading read-only workloads to the secondary replicas

Outcomes

- Build the knowledge of how to plan and implement Windows Server Failover Cluster, AlwaysOn FCIs, and AGs.
- Gain the practical experience and confidence required to manage SQL Server AlwaysOn HA and DR solutions.

Methodology

Learn by example

Participate in group discussions and learn from presentations and demonstrations.

Requirements

Participants

Participation of key roles is necessary for the overall success and delivery of this engagement.

- Database Administrators
- SQL Server Architects

Skill Requirements

- Strong SQL administration and basic high availability and disaster recovery knowledge

Delivery Requirements

- Computer with Windows 10 or later, audio equipment, internet access. Modern browser and at least 1-Mbps bandwidth per student
- Microsoft/Windows Live ID to connect to the virtual environment
- Microsoft Teams for remote deliveries

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Delivery Outline

The scope of this engagement will be agreed based on your specific needs. Final agenda will be determined in the scoping call.

Delivery Details

Understand High Availability and Disaster Recovery

- Overview of High Availability and Disaster Recovery
- Introduction to AlwaysOn

Implement Windows Server Failover Cluster

- Create Windows Failover Cluster
- Configure Cluster Quorum

Deploy Availability Groups

- Availability Groups Concept and Topology
- Create Availability Groups using Wizards, Domain Independent and Distributed Availability Groups
- Understand Data Synchronization Internals

Post Installation Tasks

- Connect to an Availability Group
- Configure Flexible Failover Policy
- Replicate Logins and Jobs

Secondary Replicas

- Readable Secondary Considerations
- Route a Read-Only Workload
- Add Azure Secondary Replicas to an on-premises Availability Group

Failover Cluster Instances

- Create Failover Cluster instances
- Post installation tasks
- Configure Flexible Failover policy

Multi-Subnet Environments

- Considerations for Multi-subnet environments

For more information: Contact your Microsoft Representative for more details.

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