

# WorkshopPLUS - SQL Server: AlwaysOn Availability Groups and Failover Cluster Instances - Monitoring and Troubleshooting

## WorkshopPLUS

**Duration:** 3 Day [Remote / Onsite]

**Difficulty Level:** 300 - Advanced

### Description

Troubleshoot issues and use tools to monitor, examine, and identify the cause of common issues. Use SQL Server AlwaysOn Availability Groups (AG) and Failover Cluster Instances (FCI) across supported versions of SQL Server AlwaysOn AG and FCI.

### Objectives

- Learn common tools to help you monitor and troubleshoot.
- Examine why availability group and cluster group failover, and why failover takes a long time.
- Review availability Group Databases status
- Study how to troubleshoot common issues.

### Outcomes

- Gain a deeper understanding of how to troubleshoot and monitor different scenarios.
- Recognize what to monitor and how to collect and analyze data. Develop an informed hypothesis about the issues.

### Methodology

#### Learn by example

Participate in group discussions and learn by demonstrations and presentations.

### 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 knowledge of high availability and disaster recovery.

#### Delivery Requirements

A dedicated client machine for data collection:

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

## 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

Focus on:

### Common tools to monitor and troubleshoot

- Common tools.

### Failover issues

- Why did my Availability Group failover?
- Why didn't my Availability Group failover?
- Why did my FCI failover?
- Why did my FCI take a long time?
- Why didn't my FCI failover?

### Availability Group Databases Not Accessible

- Availability Group Database in Recovery Pending / Not Synchronizing State.

### Setup and configuration

- Failed to join database...to the Availability Group.
- Cannot create Availability Group Listener.
- Why is Read-Only routing not working?

### Connectivity

- Cannot connect to Availability Group Listener.

### Performance

- Troubleshoot: Availability Group Exceeded Recovery Time Objective (RTO) or Recovery Point Objective (RPO).
- Troubleshoot: Slow Insert Update and Delete in Availability Group database and HADR\_SYNC\_COMMIT Waits.

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