

Episode Title: Troubleshoot Active Directory replication

Objectives:

At the end of this episode, I will be able to:

1. Troubleshoot AD replication using CLI tools
2. Explain AD replication topology concepts
3. Explain AD domain controller concepts

Key Points:

Key Point 1

The repadmin and dcdiag CLI tools can be helpful in troubleshooting Active Directory. These tools show the current replication status of the domain controllers in the environment.

Key Point 2

The replication topology defines how domain controllers communicate and exchange data to maintain consistency and fault tolerance. Ensure the the AD Sites, site links, and bridgehead servers are configured appropriately for the environment.

Key Point 3

As part of replication, DCs modify the Update Sequence Numbers (USN) to track the updates across DCs. Global catalogs also play a critical role in providing authentication to the objects in the directory.

- If additional resources are used during the episode, they can be obtained using the download link on the overview episode (e.g. diagrams, no powerpoints)

External Resources:

If external resources were used during this episode, you can reference the following external resources for supplementary tools and information, if none were used, then this section will be blank:

- Troubleshooting Active Directory Replication Problems
: <https://learn.microsoft.com/en-us/windows-server/identity/ad-ds/manage/troubleshoot/troubleshooting-active-directory-replication-problems>