

CIFSAD: ONTAP SMB Administration

Course Code: CIFSAD

Duration: 2 days

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

ONTAP SMB Administration is a one day course that extends the CIFS information found in the ONTAP Cluster Administration course. You will review and explore SMB 3.x and the features of ONTAP 9 software that support the SMB protocol. Hands-on labs are completed using ONTAP 9 software.

SKILLS COVERED

- Explain the CIFS and SMB protocol
- Demonstrate the Windows PowerShell CLI
- Configure SMB features using ONTAP 9 software
- Create and manage SMB shares and sessions
- Secure SMB sessions
- Configure ONTAP for multiprotocol data access
- Discuss SMB advanced topics, such as opportunistic locks (oplocks), BranchCache, auditing, group policy, automatic home shares, symbolic links (symlinks), and widelinks

WHO SHOULD ATTEND?

- Engineers
- Channel Partners
- NetApp Customers

PRE-REQUISITES

- ONTAP Cluster Administration (ONTAP 9.6) (ONTAP9ADM)

- Familiarity with Microsoft Windows Server 2012
- Familiarity with Microsoft Active Directory

MODULES

Module 1: SMB Overview

- Data fabric
- Data fabric layers
- CIFS and SMB protocols
- NT LAN manager
- Kerberos authentication
- Active Directory
- Workgroup environments
- NetApp PowerShell toolkit

Module 2: SMB Setup

- SMB implementation
- Licensing CIFS
- SVM for SMB access
- FlexVol volumes
- DNS entries for the SVM
- SMB share access

Module 3: SMB Shares and Sessions

- SMB share
- Creating a share
- Client access
- SMB automatic referrals
- SMB sessions
- Session administration
- SMB encryption
- Offline folders
- Offloaded data transfer

Module 4: Access Control

- Share permission administration
- Access-based enumeration
- Dynamic access control
- File blocking policies

- Local users
- Workgroup authentication
- Multiprotocol access

Module 5: Advanced Topics

- Microsoft opportunistic Lock (oplock) features
- Automatic home share
- Group policy object (GPO)
- Symlinks
- Widelinks

- Create a multiprotocol configuration and enable a root Linux user to be mapped to the Windows domain administrator
- Configure home directories and symbolic links on the SVM

Appendix A: BranchCache

- Versions
- BranchCache environment configurations
- ONTAP 9 BranchCache
- BranchCache installation on Windows Servers
- BranchCache configuration on Windows clients

Appendix B: Auditing

- Auditing concepts
- Terminology
- ONTAP 9 auditing process
- Implement auditing
- Output file format

Labs:

- Install NetApp PowerShell Toolkit and configure for use
- Create a Storage Virtual Machine (SVM) and configure it for SMB access
- Create an SMB share, connect to the share from your Windows client, and manage SMB sessions
- Create a domain user, restrict share-level permissions
- Create a local user group and give share-level permissions