

# **ONTAP SMB Administration (CIFSAD)**

**Modality: Virtual Classroom**

**Duration: 1 Day**

**NATU: 12 Units**

## **About this course:**

The ONTAP SMB Administration course provides in-depth knowledge and understanding of the Common Internet File System (CIFS). You will study Server Message Block (SMB) while exploring in more detailed Server Message Block (SMB) 3.x. The lab sessions are based on ONTAP 9.

The NetApp System Administrator can make an approx. salary of \$102,764 per year.

## **Course Objectives:**

- Configuration of Server Message Block (SMB) features by utilizing ONTAP 9 software
- Securing Server Message Block (SMB) sessions
- Define the SMB and CIFS protocol
- Configuration of ONTAP for multi-protocol data access
- Show the Windows PowerShell-CLI
- Develop and handle SMB shares and sessions
- Explain Server Message Block advanced topics, like BranchCache, group policy, symbolic links (symlinks), opportunistic locks (oplocks), widelinks, auditing, and automatic home shares.

## **Targeted Audience:**

- NetApp Customers
- Channel Partners
- Engineers

## **Prerequisites:**

- ONTAP-9 Administration

## **Course Outline:**

### **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

## **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
- 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