



Automating ONTAP REST APIs with Ansible

Delivery: Instructor-led-training (ILT)

Duration: 2 days

Training Units: 24

Course Description

Learn how to automate administration of NetApp ONTAP based system by using modern REST APIs and Ansible. Learn how to use Ansible framework to automate and deploy storage administration tasks by invoking NetApp ONTAP modules from within Ansible playbooks. Additionally, you learn how to configure your system for SMB, NFS, S3 and SAN protocols.

Role

- Administrator, engineer, architect, operator
- Sales, customer success manager, solutions engineer (SE), architect, support engineer, implementation engineer, professional services

Prerequisites

- *ONTAP Cluster Administration*

Objectives

This course focuses on enabling you to do the following:

- Analyze ONTAP REST APIs and Ansible frameworks.
- Illustrate how to invoke NetApp ONTAP modules from within Ansible playbooks to automate storage administration tasks.
- Configure SMB, NFS, S3, and SAN protocols programmatically by using Ansible playbooks.
- Identify the performance metrics of ONTAP system.

Course Content

This course includes the following modules, lessons, and exercises:

Module	Lessons	Exercises
Module 0: Welcome	<ul style="list-style-type: none"> • Architecture of lab environment 	<ul style="list-style-type: none"> • Connect to ONTAP cluster • Copy source files from Github repository • Build Integrated Development Environment
Module 1: Overview of ONTAP REST API	<ul style="list-style-type: none"> • What is REST API? • ONTAP REST API Documentation 	<ul style="list-style-type: none"> • No exercises in this module

Module	Lessons	Exercises
Module 2: Ansible Basics	<ul style="list-style-type: none"> • Introduction to Ansible • Basics of Ansible • Ansible Playbooks • Ansible Modules • Coding Demonstrations of Playbooks 	<ul style="list-style-type: none"> • Using Ansible • Configure Cluster1
Module 3: SMB Configuration	<ul style="list-style-type: none"> • SMB Configuration via Ansible 	<ul style="list-style-type: none"> • Create Ansible Playbooks to configure SMB
Module 4: NFS Configuration	<ul style="list-style-type: none"> • NFS Configuration via Ansible 	<ul style="list-style-type: none"> • Create Ansible Playbooks to configure NFS
Module 5: S3 Configuration	<ul style="list-style-type: none"> • S3 object storage configuration via Ansible 	<ul style="list-style-type: none"> • Provisioning and Configuring S3 storage
Module 6: SAN Configuration	<ul style="list-style-type: none"> • SAN REST API Documentation • iSCSI Configuration • FCP and NVME-oFConfiguration • Playbooks and Ansible Modules 	<ul style="list-style-type: none"> • Explore and identify the REST API for SAN • Create an Ansible playbook to provision storage for ONTAP
Module 7: Performance Monitoring	<ul style="list-style-type: none"> • ONTAP performance • Performance Metrics • Collecting ONTAP Performance Metrics • ONTAP System Manager 	<ul style="list-style-type: none"> • Exploring Performance Metrics API • Use Performance Metrics to provision Resources

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