

Automating ONTAP REST APIs with Python

Delivery: Instructor-led training (ILT)

Duration: 2 days

Course Description

Discover how to automate administration of a NetApp® ONTAP® based storage system by using modern ONTAP REST APIs and Python. Explore how to use the Python client library (PCL) in your Python program to automate storage administration tasks. Also, learn how to configure your system for SMB, NFS, Simple Storage Service (S3), and SAN protocols by writing Python programs.

Role

Sales, customer success manager, solutions engineer (SE), architect, support engineer, implementation engineer, and professional services

Prerequisites

- Python programming experience (required)
- *ONTAP Cluster Administration*

Objectives

This course focuses on enabling you to do the following:

- Analyze ONTAP REST APIs and Python frameworks
- Illustrate how to use PCL calls from within your Python program to automate storage administration tasks
- Configure SMB, NFS, S3, and SAN protocols programmatically by using Python programs
- Identify the performance metrics of an ONTAP based system

Course Content

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

Module 1: ONTAP REST API	<ul style="list-style-type: none">• What is REST API?• ONTAP REST API documentation	No exercises in this module
Module 2: REST API use cases: Python programs	<ul style="list-style-type: none">• Aggregate, SVM, and volume• Volume management• Snapshot copy	Writing a Python program to create storage resources
Module 3: SMB configuration	SMB Configuration via Python	Writing a Python program to configure SMB
Module 4: NFS configuration	NFS Configuration via Python	Writing a Python program to configure NFS
Module 5: S3 configuration	S3 Configuration via Python	Provisioning and configuring S3 storage
Module 6: SAN configuration	<ul style="list-style-type: none">• SAN REST API documentation• iSCSI configuration• FCP and NVME-oF configuration	Writing a Python program to configure SAN
Module 7: Performance monitoring	<ul style="list-style-type: none">• ONTAP performance• Performance metrics• Collecting ONTAP performance metrics• BlueXP and ONTAP System Manager	Writing a Python program to monitor performance

**Module 8:
Appendix: Basic
Python programming**

- Data structures
- Control flow
- Installing Python on your Linux system

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