



Software tools

ONTAP automation

NetApp
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Software tools

Python client library

Learn about the ONTAP Python client library

The NetApp ONTAP Python client library is a package you can install and use to quickly write scripts that access the ONTAP REST API. You'll need to prepare the local runtime environment before using it. You can use the *pip* utility to install the package from the Python Package Index (PyPI) site.

Related information

- [Learn more about the ONTAP REST API.](#)

Features and benefits

You can use the Python client library to quickly develop robust code to automate the administration of your ONTAP deployments. It provides several underlying services, including:

- Connection management
- Asynchronous processing
- Exception handling
- Uniform error messages

Packages and documentation

The name of the Python client library package is *netapp-ontap*. The version associated with the package is a combination of the ONTAP major and minor version numbers the library was generated from, along with a minor version for the client library within the ONTAP release. For example, valid version numbers include 9.6.1, 9.6.2, and 9.7.1.

Each ONTAP release beginning with 9.6 has a PyPI package with associated documentation. Installation requirements are included with each package and specify versions of the supporting libraries such as *python*, *requests*, *requests-toolbelt*, and *marshmallow*.

List of packages and documentation

ONTAP 9.18.1

- [PyPI: NetApp ONTAP 9.18.1](#)
- [NetApp PCL documentation for 9.18.1](#)

ONTAP 9.17.1

- [PyPI: NetApp ONTAP 9.17.1](#)
- [NetApp PCL documentation for 9.17.1](#)

ONTAP 9.16.1

- [PyPI: NetApp ONTAP 9.16.1](#)
- [NetApp PCL documentation for 9.16.1](#)

ONTAP 9.15.1

- [PyPI: NetApp ONTAP 9.15.1](#)
- [NetApp PCL documentation for 9.15.1](#)

ONTAP 9.14.1

- [PyPI: NetApp ONTAP 9.14.1](#)
- [NetApp PCL documentation for 9.14.1](#)

ONTAP 9.13.1

- [PyPI: NetApp ONTAP 9.13.1](#)
- [NetApp PCL documentation for 9.13.1](#)

ONTAP 9.12.1

- [PyPI: NetApp ONTAP 9.12.1](#)
- [NetApp PCL documentation for 9.12.1](#)

ONTAP 9.11.1

- [PyPI: NetApp ONTAP 9.11.1](#)
- [NetApp PCL documentation for 9.11.1](#)

ONTAP 9.10.1

- [PyPI: NetApp ONTAP 9.10.1](#)
- [NetApp PCL documentation for 9.10.1](#)

ONTAP 9.9.1

- [PyPI: NetApp ONTAP 9.9.1](#)
- [NetApp PCL documentation for 9.9.1](#)

ONTAP 9.8

- [PyPI: NetApp ONTAP 9.8](#)
- [NetApp PCL documentation for 9.8](#)

ONTAP 9.7

- [PyPI: NetApp ONTAP 9.7](#)
- [NetApp PCL documentation for 9.7](#)

ONTAP 9.6

- [PyPI: NetApp ONTAP 9.6](#)
- [NetApp PCL documentation for 9.6](#)

Code samples

NetApp maintains a GitHub repository with code samples and other helpful information. You can navigate to the `examples` folder to access samples using the Python client library. Refer to the following locations at GitHub for details:

- [ONTAP REST Python GitHub repository](#)
- [ONTAP REST Python Client Library Examples](#)

Script to retrieve the cluster configuration using the Python client library

The following script provides a simple example of how to use the Python client library. You can run the script using Python 3 at the CLI to retrieve the ONTAP cluster configuration.

```
1 #####-----#
2 #
3 # Description: Python script to retrieve the cluster configuration.
4 #
5 # Usage example:
6 #
7 # python3 get_cluster.py
8 #
9 #
10 # (C) Copyright 2025 NetApp, Inc.
11 #
12 # This sample code is provided AS IS, with no support or warranties of
13 # any kind, including but not limited for warranties of merchantability
14 # or fitness of any kind, expressed or implied. Permission to use,
15 # reproduce, modify and create derivatives of the sample code is
# granted
16 # solely for the purpose of researching, designing, developing and
17 # testing a software application product for use with NetApp products,
18 # provided that the above copyright notice appears in all copies and
19 # that the software application product is distributed pursuant to
# terms
20 # no less restrictive than those set forth herein.
21 #
22 #####-----#
```

```

23 # For reading the password from the commandline
24 from getpass import getpass
25 # Global configuration for the library
26 from netapp_ontap import config
27 # Support for the connection to ONTAP
28 from netapp_ontap import HostConnection
29 # Specific API needed for this script
30 from netapp_ontap.resources import Cluster
31 # Create connection to the ONTAP management LIF
32 # (add verify=False if the certificate your cluster is serving is not
33 # trusted)
33 conn = HostConnection(
34     "<mgmt_ip>", username="admin", password=getpass("ONTAP admin
35     password: "),
35 )
36 # Set connection as the default for all API calls
37 config.CONNECTION = conn
38 # Create new cluster object
39 clus = Clusterget()
42 # Display the cluster configuration
43 print(clus)

```

Learn about the NetApp PowerShell Toolkit

NetApp provides a toolkit for PowerShell applications that you can use to administer your ONTAP storage systems. The toolkit was created by NetApp developers and is supported by the customer community.

Overview

PowerShell is another option for automating the administration of your ONTAP clusters.

PowerShell

PowerShell is a programming language from Microsoft that you can use for task automation and configuration management. It includes a command line shell environment as well as a scripting language.

NetApp ONTAP PowerShell Toolkit

The NetApp.ONTAP PowerShell toolkit includes the PowerShell module for NetApp ONTAP. The toolkit supports ONTAP running in a variety of environments, including NetApp AFF and FAS systems, commodity hardware, and the cloud. The module includes over 2,400 cmdlets which collectively support storage administration on Windows hosts.

Download and install

There are two options available to download and install the NetApp ONTAP PowerShell toolkit.

NetApp support

You can download the PowerShell toolkit from the NetApp support site:

[NetApp.ONTAP PowerShell Toolkit](#)

PowerShell Gallery

You can download the PowerShell toolkit from PowerShell Gallery:

[NetApp.ONTAP PowerShell Toolkit](#)

Learn about the NetApp Manageability SDK

The NetApp Manageability SDK provides a set of ONTAPI API calls for developing applications to monitor and manage your ONTAP storage. Together with the OnCommand Workflow Automation package, the SDK supports your efforts to automate the manage of your ONTAP systems.

 While the NetApp Manageability SDK and OnCommand Workflow Automation continued to be supported, the ONTAP REST API is the preferred and strategic technology to use when automating your ONTAP systems. See [Migrate from ONTAPI to the REST API](#) for more information.

Download the SDK

You can download the NetApp Manageability SDK from the NetApp Support Site. The SDK supports several languages on the client side, including: Python, PowerShell, C, C++, Java, C#, VB.Net, and Ruby. Make sure to review the Interoperability Matrix Tool for information about the NetApp Manageability SDK and how it is supported with your version of ONTAP.

Use OnCommand Workflow Automation

You can also use the API provided with the SDK to automate management tasks without writing any scripts. OnCommand Workflow Automation (OnCommand WFA) provides several prepackaged workflows to deploy and run the management tasks.

Related information

- [NetApp Support Site](#)
- [NetApp Interoperability Matrix Tool](#)
- [NetApp Manageability SDK documentation](#)
- [OnCommand Workflow Automation documentation](#)

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