

NETAPP DATAOPS TOOLKIT



Python library for simplified data management.



The challenge

Artificial intelligence (Al) and machine learning (ML) are changing the game by helping organizations around the world to accelerate innovation and gain a competitive advantage. As organizations increase their use of Al and ML, they face challenges in data management, deployment complexity, and data availability. Many frameworks and toolkits attempt to improve data scalability and ease of data deployment, but most fail to address the crucial challenge of data management and availability. Many also feature proprietary data platforms that lack proven, enterprise-class reliability.

The solution

The NetApp® DataOps Toolkit is a Python library that makes it easy for developers, data scientists, and data engineers to perform numerous data management tasks. These tasks include provisioning a new data volume or development workspace, cloning a data volume or development workspace almost instantaneously, and creating a NetApp Snapshot™ copy of a data volume or development workspace for traceability and baselining. SnapLock™ WORM volume support is also available to prevent data deletion and to support compliance requirements.

This Python library can function as either a command-line utility or a library of functions that can be imported into any Python program or Jupyter Notebook.

The DataOps Toolkit supports Linux and macOS hosts. The toolkit must be used in conjunction with a NetApp data storage system or service. It simplifies various data management tasks that are executed by the data storage system or service. To facilitate this simplification, the toolkit communicates with the data storage system or service through an API.

The DataOps Toolkit comes in two versions: one for Kubernetes-based environments, and one for traditional virtualized or bare-metal environments. Both versions are compatible with NetApp AFF A-Series and C-Series all-flash arrays, NetApp FAS arrays, Amazon FSx for NetApp ONTAP, NetApp Cloud Volumes ONTAP® software, and NetApp ONTAP Select software. The Kubernetes version also supports Azure NetApp Files and NetApp EF-Series all-flash arrays.

The DataOps Toolkit enhances MLOps platforms by making it easier to invoke data management tasks. A data scientist working within a Jupyter Notebook can use the DataOps Toolkit to implement a data management task in one simple line of Python code. Likewise, a data engineer can easily invoke a DataOps Toolkit operation as a step within an Apache Airflow or Kubeflow Pipeline automated workflow.

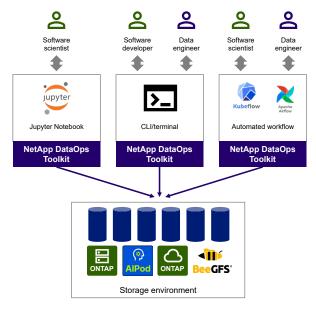


Figure 1: NetApp DataOps Toolkit, simplifying Al data management.

KEY BENEFITS

Simplify data management

- Quickly and easily provision, clone, and create a Snapshot copy or a SnapLock data volume.
- Focus on the science instead of on IT.

Streamline Al workflows

- Simplify Al workloads and data science workspace provisioning.
- Drive your AI and ML projects forward faster.

Get the most out of your data

- Trust that your data is always available whenever and wherever it's needed, no matter where it resides.
- Simplify building your DevOps and MLOps pipelines.



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About NetApp

NetApp is the intelligent data infrastructure company, combining unified data storage, integrated data services, and CloudOps solutions to turn a world of disruption into opportunity for every customer. NetApp creates silo-free infrastructure, harnessing observability and Al to enable the industry's best data management. As the only enterprise-grade storage service natively embedded in the world's biggest clouds, our data storage delivers seamless flexibility. In addition, our data services create a data advantage through superior cyber resilience, governance, and application agility. Our CloudOps solutions provide continuous optimization of performance and efficiency through observability and Al. No matter the data type, workload, or environment, with NetApp you can transform your data infrastructure to realize your business possibilities. www.netapp.com