



NetApp SolidFire Python SDK Release Notes

Version: v1.4

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Introduction

The NetApp SolidFire Python SDK is a collection of software modules and libraries that facilitate integration and orchestration between proprietary systems and third-party applications. The Python SDK allows developers to deeply integrate SolidFire system API with their Python programming language. The NetApp SolidFire Python SDK reduces the amount of additional coding time required for integration.

The Python SDK is available from [PyPI](#), [GitHub](#), and [BrickFTP](#).

The intended audience for this document is Python developers who are responsible for integrating SolidFire into other applications.

NOTE: All available languages of the NetApp SolidFire SDK are now version 1.4. Version 1.3 has been skipped in order to synchronize all SDK languages to a single version number. Starting with version 1.4, SolidFire SDK languages of a shared version number have identical functionality and available APIs.

Support Matrix

The SolidFire Python SDK supports the following software.

Component	Versions
Python	Python 2: 2.7 and later Python 3: 3.3 or later
SolidFire Element OS	7.0 through 9.1

Installing the NetApp SolidFire Python SDK from PyPI

You can globally install the NetApp SolidFire Python SDK from [PyPI](#) using pip.

Prerequisites

- pip version 1.3 or later must be installed globally.

Procedure

NOTE: NetApp SolidFire recommends [virtualenv](#) to isolate your Python environment to only the required libraries.

1. Type the following command in pip:

```
pip install solidfire-sdk-python
```

2. Review the [GitHub](#) project page for examples of higher level classes and links to supplemental documentation.

Installing the NetApp SolidFire Python SDK from Source Control

You can install the NetApp SolidFire Python SDK from [GitHub](#) to edit the source code or clone the project for development purposes.

Procedure

NOTE: NetApp SolidFire recommends [virtualenv](#) to isolate your Python environment to only the required libraries.

1. Install the NetApp SolidFire Python SDK:
 - Install from a branch in source control:

```
pip install -e git+https://github.com/solidfire/solidfire-sdk-python.git@develop#egg=solidfire-sdk-python
```

- Alternatively, create a local clone of the repository for development purposes or to inspect the source code:

```
git clone git@github.com:solidfire/solidfire-sdk-python.git
cd solidfire-sdk-python
git checkout develop
pip install -e ".[dev,test, docs, release]"
python setup.py install
```

2. Append the SolidFire directory location to your PYTHONPATH environment variable. This enables you to use the SolidFire Python SDK in other Python scripts.

```
export PYTHONPATH=$PYTHONPATH:/path/to/sf-python-sdk/
```

3. Review the [GitHub](#) project page for examples of higher level classes and links to supplemental documentation.

What's New in this Release

The Python SDK version 1.4 release expands the available parameters for the supported SolidFire Element OS APIs from version 7.0 through version 9.1.

Available API	New or Updated Parameters
AddDrives	forceDuringUpgrade
AddNodes	autoInstall
CloneVolume	enable512e
CreateStorageContainer	accountID
GetAsyncResult	keepResult
GetNvramInfo	force
ListAccounts	includeStorageContainers
ListActivePairedVolumes	limit startVolumeID
ListActiveVolumes	includeVirtualVolumes
ListDeletedVolumes	includeVirtualVolumes
ListGroupSnapshots	volumes groupSnapshotID
ListSnapshots	snapshotID
ListVolumeAccessGroups	volumeAccessGroups
ListVolumes	includeVirtualVolumes volumeName
ListVolumesForAccount	includeVirtualVolumes
ListVolumeStatsByAccount	accounts includeVirtualVolumes
ListVolumeStatsByVolumeAccessGroup	includeVirtualVolumes
ListVolumeStatsByVolume	includeVirtualVolumes
ModifyVolumeAccessGroup	deleteOrphanInitiators
ModifyVolumePair	pauseLimit
RemoveDrives	forceDuringUpgrade
RemoveInitiatorsFromVolumeAccessGroup	deleteOrphanInitiators
ResetNode	options reboot
TestPing	prohibitFragmentation

All NetApp SolidFire SDK API Methods

The following SolidFire API methods are available in Python wrappers in NetApp SolidFire Python SDK version 1.4:

Element OS 9	Element OS 8	Element OS 7
AddAccount	AddAccount	AddAccount
AddClusterAdmin	AddClusterAdmin	AddClusterAdmin
AddDrives	AddDrives	AddDrives
AddInitiatorsToVolumeAccessGroup	AddInitiatorsToVolumeAccessGroup	AddInitiatorsToVolumeAccessGroup
AddLdapClusterAdmin	AddLdapClusterAdmin	
AddNodes	AddNodes	AddNodes
AddVirtualNetwork	AddVirtualNetwork	AddVirtualNetwork
AddVolumesToVolumeAccessGroup	AddVolumesToVolumeAccessGroup	AddVolumesToVolumeAccessGroup
CancelClone		
CancelGroupClone		
ClearClusterFaults	ClearClusterFaults	ClearClusterFaults
CloneMultipleVolumes	CloneMultipleVolumes	CloneMultipleVolumes
CloneVolume	CloneVolume	CloneVolume
CompleteClusterPairing	CompleteClusterPairing	CompleteClusterPairing
CompleteVolumePairing	CompleteVolumePairing	CompleteVolumePairing
CopyVolume		
CreateBackupTarget	CreateBackupTarget	CreateBackupTarget
CreateCluster	CreateCluster	CreateCluster
CreateGroupSnapshot	CreateGroupSnapshot	CreateGroupSnapshot
CreateInitiators		
CreateSchedule	CreateSchedule	
CreateSnapshot	CreateSnapshot	CreateSnapshot
CreateStorageContainer		
CreateSupportBundle	CreateSupportBundle	
CreateVirtualVolumeHost		
CreateVolume	CreateVolume	CreateVolume
CreateVolumeAccessGroup	CreateVolumeAccessGroup	CreateVolumeAccessGroup
DeleteAllSupportBundles	DeleteAllSupportBundles	
DeleteGroupSnapshot	DeleteGroupSnapshot	DeleteGroupSnapshot
DeleteInitiators		

Element OS 9	Element OS 8	Element OS 7
DeleteSnapshot	DeleteSnapshot	DeleteSnapshot
DeleteStorageContainers		
DeleteVolume	DeleteVolume	DeleteVolume
DeleteVolumeAccessGroup	DeleteVolumeAccessGroup	DeleteVolumeAccessGroup
DeleteVolumes		
DisableEncryptionAtRest	DisableEncryptionAtRest	DisableEncryptionAtRest
DisableLdapAuthentication	DisableLdapAuthentication	
DisableSnmpp	DisableSnmpp	
EnableEncryptionAtRest	EnableEncryptionAtRest	EnableEncryptionAtRest
EnableFeature		
EnableLdapAuthentication	EnableLdapAuthentication	
EnableSnmpp	EnableSnmpp	
GetAccountByID	GetAccountByID	GetAccountByID
GetAccountByName	GetAccountByName	GetAccountByName
GetAccountEfficiency	GetAccountEfficiency	GetAccountEfficiency
GetAPI	GetAPI	GetAPI
GetAsyncResult	GetAsyncResult	GetAsyncResult
GetBackupTarget	GetBackupTarget	GetBackupTarget
GetBootstrapConfig	GetBootstrapConfig	GetBootstrapConfig
GetClusterCapacity	GetClusterCapacity	GetClusterCapacity
GetClusterConfig	GetClusterConfig	GetClusterConfig
GetClusterFullThreshold	GetClusterFullThreshold	GetClusterFullThreshold
GetClusterHardwareInfo	GetClusterHardwareInfo	GetClusterHardwareInfo
GetClusterInfo	GetClusterInfo	GetClusterInfo
GetClusterMasterNodeID	GetClusterMasterNodeID	GetClusterMasterNodeID
GetClusterState	GetClusterState	GetClusterState
GetClusterStats	GetClusterStats	GetClusterStats
GetClusterVersionInfo	GetClusterVersionInfo	GetClusterVersionInfo
GetCompleteStats	GetCompleteStats	GetCompleteStats
GetConfig	GetConfig	GetConfig
GetCurrentClusterAdmin	GetCurrentClusterAdmin	GetCurrentClusterAdmin
GetDefaultQoS	GetDefaultQoS	GetDefaultQoS
GetDriveConfig	GetDriveConfig	GetDriveConfig

Element OS 9	Element OS 8	Element OS 7
GetDriveHardwareInfo	GetDriveHardwareInfo	GetDriveHardwareInfo
GetDriveStats	GetDriveStats	GetDriveStats
GetFeatureStatus		
GetHardwareConfig	GetHardwareConfig	GetHardwareConfig
GetHardwareInfo		
GetLdapConfiguration	GetLdapConfiguration	
GetLimits	GetLimits	GetLimits
GetLoginSessionInfo	GetLoginSessionInfo	GetLoginSessionInfo
GetNetworkConfig	GetNetworkConfig	GetNetworkConfig
GetNodeHardwareInfo	GetNodeHardwareInfo	GetNodeHardwareInfo
GetNodeStats	GetNodeStats	GetNodeStats
GetNtpInfo	GetNtpInfo	GetNtpInfo
GetNvramInfo	GetNvramInfo	GetNvramInfo
GetPendingOperation	GetPendingOperation	GetPendingOperation
GetRawStats	GetRawStats	GetRawStats
GetRemoteLoggingHosts	GetRemoteLoggingHosts	GetRemoteLoggingHosts
GetSchedule	GetSchedule	
GetSnmPACL	GetSnmPACL	
GetSnmPInfo	GetSnmPInfo	GetSnmPInfo
GetSnmPState	GetSnmPState	
GetSnmPTrapInfo	GetSnmPTrapInfo	GetSnmPTrapInfo
GetStorageContainerEfficiency		
GetSystemStatus	GetSystemStatus	
GetVirtualVolumeCount		
GetVirtualVolumeTaskUpdate		
GetVirtualVolumeUnsharedChunks		
GetVolumeAccessGroupEfficiency	GetVolumeAccessGroupEfficiency	GetVolumeAccessGroupEfficiency
GetVolumeAccessGroupLunAssignments	GetVolumeAccessGroupLunAssignments	GetVolumeAccessGroupLunAssignments
GetVolumeEfficiency	GetVolumeEfficiency	GetVolumeEfficiency
GetVolumeStats	GetVolumeStats	GetVolumeStats
InvokeSFApi		
ListAccounts	ListAccounts	ListAccounts
ListActiveNodes	ListActiveNodes	ListActiveNodes

Element OS 9	Element OS 8	Element OS 7
ListActivePairedVolumes	ListActivePairedVolumes	ListActivePairedVolumes
ListActiveVolumes	ListActiveVolumes	ListActiveVolumes
ListAllNodes	ListAllNodes	ListAllNodes
ListAsyncResults	ListAsyncResults	
ListBackupTargets	ListBackupTargets	ListBackupTargets
ListBulkVolumeJobs	ListBulkVolumeJobs	ListBulkVolumeJobs
ListClusterAdmins	ListClusterAdmins	ListClusterAdmins
ListClusterFaults	ListClusterFaults	ListClusterFaults
ListClusterPairs	ListClusterPairs	
ListDeletedVolumes	ListDeletedVolumes	ListDeletedVolumes
ListDriveHardware	ListDriveHardware	ListDriveHardware
ListDrives	ListDrives	ListDrives
ListDriveStats		
ListEvents	ListEvents	ListEvents
ListFibreChannelPortInfo	ListFibreChannelPortInfo	
ListFibreChannelSessions	ListFibreChannelSessions	ListFibreChannelSessions
ListGroupSnapshots	ListGroupSnapshots	ListGroupSnapshots
ListInitiators		
ListISCSISessions	ListISCSISessions	ListISCSISessions
ListNodeFibreChannelPortInfo	ListNodeFibreChannelPortInfo	ListNodeFibreChannelPortInfo
ListNodeStats	ListNodeStats	ListNodeStats
ListPendingNodes	ListPendingNodes	ListPendingNodes
ListProtocolEndpoints		
ListSchedules	ListSchedules	
ListSnapshots	ListSnapshots	ListSnapshots
ListStorageContainers		
ListSyncJobs	ListSyncJobs	ListSyncJobs
ListTests	ListTests	ListTests
ListUtilities	ListUtilities	ListUtilities
ListVirtualNetworks	ListVirtualNetworks	ListVirtualNetworks
ListVirtualVolumeBindings		
ListVirtualVolumeHosts		
ListVirtualVolumes		

Element OS 9	Element OS 8	Element OS 7
ListVirtualVolumeTasks		
ListVolumeAccessGroups	ListVolumeAccessGroups	ListVolumeAccessGroups
ListVolumes	ListVolumes	
ListVolumesForAccount	ListVolumesForAccount	ListVolumesForAccount
ListVolumeStats		
ListVolumeStatsByAccount	ListVolumeStatsByAccount	ListVolumeStatsByAccount
ListVolumeStatsByVirtualVolume		
ListVolumeStatsByVolume	ListVolumeStatsByVolume	ListVolumeStatsByVolume
ListVolumeStatsByVolumeAccessGroup	ListVolumeStatsByVolumeAccessGroup	ListVolumeStatsByVolumeAccessGroup
ModifyAccount	ModifyAccount	ModifyAccount
ModifyBackupTarget	ModifyBackupTarget	ModifyBackupTarget
ModifyClusterAdmin	ModifyClusterAdmin	ModifyClusterAdmin
ModifyClusterFullThreshold	ModifyClusterFullThreshold	ModifyClusterFullThreshold
ModifyGroupSnapshot	ModifyGroupSnapshot	
ModifyInitiators		
ModifySchedule	ModifySchedule	
ModifySnapshot	ModifySnapshot	
ModifyStorageContainer		
ModifyVirtualNetwork	ModifyVirtualNetwork	ModifyVirtualNetwork
ModifyVolume	ModifyVolume	ModifyVolume
ModifyVolumeAccessGroup	ModifyVolumeAccessGroup	ModifyVolumeAccessGroup
ModifyVolumeAccessGroupLunAssignments	ModifyVolumeAccessGroupLunAssignments	ModifyVolumeAccessGroupLunAssignments
ModifyVolumePair	ModifyVolumePair	ModifyVolumePair
ModifyVolumes	ModifyVolumes	
PrepareVirtualSnapshot		
PurgeDeletedVolume	PurgeDeletedVolume	PurgeDeletedVolume
PurgeDeletedVolumes		
RemoveAccount	RemoveAccount	RemoveAccount
RemoveBackupTarget	RemoveBackupTarget	RemoveBackupTarget
RemoveClusterAdmin	RemoveClusterAdmin	RemoveClusterAdmin
RemoveClusterPair	RemoveClusterPair	RemoveClusterPair
RemoveDrives	RemoveDrives	RemoveDrives
RemoveInitiatorsFromVolumeAccessGroup	RemoveInitiatorsFromVolumeAccessGroup	RemoveInitiatorsFromVolumeAccessGroup

Element OS 9	Element OS 8	Element OS 7
p	p	p
RemoveNodes	RemoveNodes	RemoveNodes
RemoveVirtualNetwork	RemoveVirtualNetwork	
RemoveVolumePair	RemoveVolumePair	
RemoveVolumesFromVolumeAccessGroup	RemoveVolumesFromVolumeAccessGroup	RemoveVolumesFromVolumeAccessGroup
ResetDrives	ResetDrives	ResetDrives
ResetNode	ResetNode	ResetNode
RestoreDeletedVolume	RestoreDeletedVolume	RestoreDeletedVolume
RollbackToGroupSnapshot	RollbackToGroupSnapshot	RollbackToGroupSnapshot
RollbackToSnapshot	RollbackToSnapshot	RollbackToSnapshot
SecureEraseDrives	SecureEraseDrives	SecureEraseDrives
SetClusterConfig	SetClusterConfig	SetClusterConfig
SetConfig	SetConfig	SetConfig
SetDefaultQoS		
SetLoginSessionInfo	SetLoginSessionInfo	SetLoginSessionInfo
SetNetworkConfig	SetNetworkConfig	SetNetworkConfig
SetNtpInfo	SetNtpInfo	SetNtpInfo
SetRemoteLoggingHosts	SetRemoteLoggingHosts	SetRemoteLoggingHosts
SetSnmpACL	SetSnmpACL	
SetSnmpInfo	SetSnmpInfo	SetSnmpInfo
SetSnmpTrapInfo	SetSnmpTrapInfo	
SnmpSendTestTraps	SnmpSendTestTraps	
StartBulkVolumeRead	StartBulkVolumeRead	StartBulkVolumeRead
StartBulkVolumeWrite	StartBulkVolumeWrite	StartBulkVolumeWrite
StartClusterPairing	StartClusterPairing	StartClusterPairing
StartVolumePairing	StartVolumePairing	StartVolumePairing
TestConnectEnsemble	TestConnectEnsemble	TestConnectEnsemble
TestConnectMvip	TestConnectMvip	TestConnectMvip
TestConnectSvip	TestConnectSvip	TestConnectSvip
TestDrives	TestDrives	TestDrives
TestLdapAuthentication	TestLdapAuthentication	
TestPing	TestPing	TestPing
UpdateBulkVolumeStatus	UpdateBulkVolumeStatus	UpdateBulkVolumeStatus

For more detail on SolidFire API methods, refer to the SolidFire Element API Reference Guide for your operating system.

Contacting NetApp SolidFire SDK Support

If you have any questions or comments about this product, open an issue on our [GitHub repo](#) or reach out to the online developer community at [ThePub](#). Your feedback helps us focus our efforts on new features and capabilities.



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