NetApp

NetApp SolidFire PowerShell Tools Release Notes

Version 1.3

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Introduction

SolidFire PowerShell Tools is a collection of Microsoft® Windows® PowerShell functions that use SolidFire API to control a SolidFire storage system. These functions allow administrators to query for information, make changes to objects in a storage system, and develop complex scripts on a single platform. You can use this module with other modules and snap-ins, such as VMware® PowerCLI and Cisco® UCS PowerTool, to extend capabilities throughout the infrastructure.

Any user with a SolidFire storage system and Windows PowerShell can take advantage of SolidFire PowerShell Tools. Before you use SolidFire PowerShell Tools, you should have an understanding of Windows PowerShell functions. The SolidFire PowerShell Tools module can be obtained through the SolidFire Support BrickFTP site or GitHub.

Software Prerequisites

Component	Application	Description
PowerShell	PowerShell 4.0 or 5.0	Version 4.0* is the minimum recommended version to use with SolidFire PowerShell Tools. Functionality may vary on earlier versions. It is also recommended to additionally enable PowerShell 2.0 on your system. PowerShell 2.0 is a prerequisite for other PowerShell snap-ins and modules, such as PowerCLI and UCS PowerTool.
SolidFire Element OS		Element versions 7 through 9
.NET framework		4.5.1 or later

*Additional components might be required in order to take full advantage of PowerShell 4.0 and SolidFire PowerShell Tools. These components include WS-Management 3.0 and Windows Management Instrumentation (WMI) 3.0.

Supported OS and OS-level Virtualization

The following operating systems and container software are supported:

OS and Containers	Description
Microsoft® Windows® 8.1	Windows PowerShell is installed by default. Install the KB2883200 update.
Microsoft® Windows® 7 SP1	Windows PowerShell is supported but not installed.
Microsoft® Windows® 10	Windows PowerShell is installed by default.
Windows® Server 2012 R2 64-bit	Windows PowerShell is installed by default.
Windows® Server 2016	Windows PowerShell is installed by default.
Mac OS 10.11	Windows PowerShell for Mac is not installed by default.
Linux	Windows PowerShell for Linux is not installed by default.
Docker	Runs a container with Ubuntu and the SolidFire PowerShell tools pre-installed.

*The installer for SolidFire PowerShell Tools requires a 64-bit operating system to successfully complete installation.

Installing or Upgrading SolidFire PowerShell Tools

For a description of the installation process for your operating system, see the SolidFire PowerShell Tools user guide.

To upgrade SolidFire PowerShell Tools on Windows, download the latest MSI release from the SolidFire public GitHub repository or from BrickFTP. Once the MSI is downloaded and brought into your existing PowerShell environment, double-click the MSI file and follow the installation prompts.

What's New in this Release

SolidFire PowerShell Tools version 1.3 contains the following improvements:

- Full cmdlet support for the version 9.0 release of Element OS.
- Improved cmdlet functionality:
  - `Get-SFVolumeStats`: Added ability to pipeline in Volume objects.
  - `Connect-SFCluster`: Added Timeout parameter.
- Request and response objects shown when `–Verbose` flag used on any cmdlet.

The following are new SolidFire cmdlets in the version 1.3 release:

- `Complete-SFClusterPairing`: [Cluster] Creates an encoded key from a cluster that is used to pair with another cluster.
- `Complete-SFVolumePairing`: [Cluster] Completes the pairing of two volumes.
- `Copy-SFVolume`: [Cluster] Copies one volume to another.
- `Disable-SFEncryptionAtRest`: [Cluster] Removes the encryption that was previously applied to the cluster using the Enable-SFEncryptionAtRest CmdLet.
- `Enable-SFEncryptionAtRest`: [Cluster] Enables the (AES) 256-bit encryption at rest so the cluster can manage the encryption key used for the drives on each node.
- `Enable-SFFeature`: [Cluster] Enables cluster features that are disabled by default.
- `Get-SFAsyncStatus`: [Cluster] Gets the results of all currently running and completed asynchronous methods on the system.
- `Get-SFClusterHardwareInfo`: [Cluster] Gets the hardware status and information for all Fibre Channel nodes, iSCSI nodes, and drives in the cluster. This generally includes manufacturers, vendors, versions, and other associated hardware identification information.
- `Get-SFClusterPair`: [Cluster] Lists all of the clusters a cluster is paired with.
- `Get-SFCompleteStats`: [Cluster] Used by SolidFire engineering to troubleshoot new features.
- `Get-SFFeatureStatus`: [Cluster] Gets the status of a cluster feature.
- `Get-SFHardwareConfig`: [Node] Gets the hardware configuration information for a node. NOTE: This method is available only through the per-node API endpoint 5.0 or later.
- `Get-SFInitiator`: [Cluster] Lists initiator IQNs or WWPNs.
- `Get-SFLdapConfiguration`: [Cluster] Gets the current LDAP configuration on cluster.
- `Get-SFLoginSessionInfo`: [Cluster] Gets the period of time a login authentication is valid for both login shells and the TUI.
- `Get-SFLunAssignment`: [Cluster] Gets LUN mappings of a specified volume access group.
- `Get-SFNodeHardwareInfo`: [Cluster] Gets all the hardware info and status for the node specified. This generally includes manufacturers, vendors, versions, and other associated hardware identification information.
- `Get-SFNodeStats`: [Cluster] Gets the high-level activity measurements for a node or all nodes.
- `Get-SFNvramInfo`: [Node] Gets information from each node about the NVRAM card.
- `Get-SFPendingOperation`: [Node] Detects an operation on a node that is currently in progress.
- `Get-SFProtocolEndpoint`: [Cluster] Gets protocol endpoints in the system
- `Get-SFRawStats`: [Cluster] Used by SolidFire engineering to troubleshoot new features.
- `Get-SFRemoteLoggingHost`: [Cluster] Retrieves the current list of log servers.
- `Get-SFSchedule`: [Cluster] Gets the scheduled snapshots on a cluster.
- `Get-SFStorageContainer`: [Cluster] Gets information for all storage containers currently in the system.

- `Get-SFStorageContainerEfficiency`: [Cluster] Gets efficiency information about a virtual volume storage container.
- `Get-SFSystemStatus`: [Cluster] Gets status of nodes in a SolidFire cluster.
- `Get-SFTests`: [Node] Gets the tests that are available to run on a node.
- `Get-SFUtilities`: [Node] Gets the utilities that are available to run on a node.
- `Get-SFVirtualVolume`: [Cluster] Gets a list of the virtual volumes currently in the system. You can use this method to list all virtual volumes, or only list a subset.
- `Get-SFVirtualVolumeBinding`: [Cluster] Gets a list of VVol bindings.
- `Get-SFVirtualVolumeCount`: [Cluster] Gets the number of virtual volumes currently in the system.
- `Get-SFVirtualVolumeHost`: [Cluster] Gets a list of known ESX hosts.
- `Get-SFVirtualVolumeTask`: [Cluster] Gets a list of VVol Async Tasks.
- `Get-SFVolumePair`: [Cluster] Gets a list of all of the active paired volumes paired with a volume.
- `Get-SFVolumeStatsByVirtualVolume`: [Cluster] Gets a list of virtual volume statistics for any virtual volume in system.
- `Invoke-SFApi`: [Node/Cluster] A generic cmdlet that invokes any SolidFire API method.
- `New-SFInitiator`: [Cluster] Creates multiple new initiator IQNs or World Wide Port Names (WWPNs) and optionally assigns them aliases and attributes.
- `New-SFLdapClusterAdmin`: [Cluster] Adds a new LDAP cluster admin.
- `New-SFSchedule`: [Cluster] Creates a schedule that will make a snapshot of a volume.
- `New-SFStorageContainer`: [Cluster] Creates a new storage container.
- `Remove-SFClusterFault`: [Cluster] Removes faults on the cluster.
- `Remove-SFClusterPair`: [Cluster] Disconnects the open connections between two clusters created by cluster pairing.
- `Remove-SFInitiator`: [Cluster] Deletes one or more initiators from the system (and from any associated volumes or volume access groups).
- `Remove-SFSnapshot`: [Cluster] Deletes a snapshot.
- `Remove-SFStorageContainer`: [Cluster] Removes a storage container when you provide an ID.
- `Remove-SFVirtualNetwork`: [Cluster] Removes a configured virtual network for the cluster.
- `Remove-SFVolumePair`: [Cluster] Removes the remote pairing between two volumes.
- `Set-SFClusterFullThreshold`: [Cluster] Changes the level at which an event is generated when the storage cluster approaches the capacity utilization requested.
- `Set-SFDefaultQoS`: [Cluster] Sets the default Quality of Service (QoS) values (measured in inputs and outputs per second, or IOPS) for all volumes not yet created.
- `Set-SFGroupSnapshot`: [Cluster] Modifies a point-in-time snapshot of a group of volumes.
- `Set-SFInitiator`: [Cluster] Sets the attributes of an existing initiator.
- `Set-SFLdapAuthentication`: [Cluster] Enables or disables LDAP configuration.
- `Set-SFLoginSessionInfo`: [Cluster] Sets remote logging from the nodes in the storage cluster to a centralized log server or servers.
- `Set-SFRemoteLoggingHost`: [Cluster] Configures remote logging from the nodes in the storage cluster to a centralized log server or servers.
- `Set-SFSchedule`: [Cluster] Modifies a schedule which creates a snapshot of a volume.
- `Set-SFSnapshot`: [Cluster] Modifies a point-in-time snapshot of a volume.
- `Set-SFStorageContainer`: [Cluster] Modifies an existing storage container.
- `Set-SFVolumePair`: [Cluster] Pauses or restarts replication between a pair of volumes.

- `Start-SFClusterPairing`: [Cluster] Creates an encoded key from a cluster that is used to pair with another cluster.
- `Start-SFVolumeBackup`: [Cluster] Initializes a backup (also known as a bulk volume read) session on a specified volume.
- `Start-SFVolumePairing`: [Cluster] Creates an encoded key from a volume that is used to pair with another volume.
- `Start-SFVolumeRestore`: [Cluster] Initializes a restore (also known as a bulk volume write) session on a specified volume.
- `Stop-SFClone`: [Cluster] Cancels a currently running clone operation. This method does not return anything.
- `Stop-SFGroupClone`: [Cluster] Stops an ongoing CloneMultipleVolumes process for a group of clones.
- `Test-SFConnectEnsemble`: [Node] Verifies connectivity with a specified database ensemble.
- `Test-SFConnectMvip`: [Node] Tests the management connection to the cluster. The test pings the MVIP and executes a simple API method to verify connectivity.
- `Test-SFConnectSvip`: [Node] Tests the storage connection to the cluster. The test pings the SVIP and executes a simple API method to verify connectivity.
- `Test-SFLdapAuthentication`: [Cluster] Verifies LDAP authentication configuration.
- `Test-SFPing`: [Node] Validates the connection to all nodes in the cluster on both 1G and 10G interfaces using ICMP packets.
- `Test-SFSendSnmpTrap`: [Cluster] Sends SNMP test signal to active trap targets.

The following are all cmdlets included in the version 1.3 release:

- `Add-SFDrive`: [Cluster] Adds available drives to the cluster.
- `Add-SFInitiatorToVolumeAccessGroup`: [Cluster] Adds initiators to an existing volume access group.
- `Add-SFNode`: [Cluster] Adds a SolidFire node to the cluster.
- `Add-SFSnmpNetwork`: [Cluster] Adds an SNMP network object that is used to configure SNMP on the cluster nodes.
- `Add-SFSnmpTrapRecipient`: [Cluster] Adds a host that receives traps generated by the cluster master.
- `Add-SFSnmpUsmUser`: [Cluster] Adds an SNMP v3 USM users object that is used to access SNMP on the cluster.
- `Add-SFVolumeToVolumeAccessGroup`: [Cluster] Adds one or more volumes to an existing volume access group.
- `Complete-SFClusterPairing`: [Cluster] Creates an encoded key from a cluster that is used to pair with another cluster.
- `Complete-SFVolumePairing`: [Cluster] Completes the pairing of two volumes.
- `Connect-SFCluster`: [Node/Cluster] Initiates a connection sequence that establishes a SolidFire node or cluster connection.
- `Copy-SFVolume`: [Cluster] Copies one volume to another.
- `Disable-SFEncryptionAtRest`: [Cluster] Removes the encryption that was previously applied to the cluster using the Enable-SFEncryptionAtRest CmdLet.
- `Disable-SFSnmp`: [Cluster] Disables SNMP on the SolidFire cluster.
- `Disconnect-SFCluster`: [Node/Cluster] Disconnects a cluster or node connection.
- `Enable-SFEncryptionAtRest`: [Cluster] Enables the (AES) 256-bit encryption at rest so the cluster can manage the encryption key used for the drives on each node.
- `Enable-SFFeature`: [Cluster] Enables cluster features that are disabled by default.
- `Enable-SFSnmp`: [Cluster] Enables SNMP on the SolidFire cluster.
- `Get-SFAccount`: [Cluster] Gets information on all active volume accounts on a SolidFire cluster.
- `Get-SFAccountEfficiency`: [Cluster] Gets storage efficiency information for a given account.
- `Get-SFActiveNode`: [Cluster] Gets information about the active SolidFire nodes in the cluster.
- `Get-SFASyncResult`: [Cluster] Gets the result of an asynchronous method call.

- `Get-SFAsyncStatus`: [Cluster] Gets the results of all currently running and completed asynchronous methods on the system.
- `Get-SFBootstrapConfig`: [Node] Gets the IP addresses of other nodes that have been configured with the same cluster information as the polled node.
- `Get-SFBulkVolumeJob`: [Cluster] Gets information about each bulk volume read and write operation occuring in the system.
- `Get-SFClusterAdmin`: [Cluster] Gets a list of all cluster administrators for the cluster.
- `Get-SFClusterCapacity`: [Cluster] Gets high-level capacity measurements of an entire cluster.
- `Get-SFClusterConfig`: [Node] Gets the cluster configuration of a node.
- `Get-SFClusterFault`: [Cluster] Gets information about faults detected on the cluster.
- `Get-SFClusterFullThreshold`: [Cluster] Gets cluster fullness levels.
- `Get-SFClusterHardwareInfo`: [Cluster] Gets the hardware status and information for all Fibre Channel nodes, iSCSI nodes, and drives in the cluster. This generally includes manufacturers, vendors, versions, and other associated hardware identification information.
- `Get-SFClusterInfo`: [Cluster] Gets configuration information about the cluster.
- `Get-SFClusterMasterNodeID`: [Cluster] Gets the ID of the node that performs cluster-wide administration tasks and holds the storage virtual IP (SVIP) and management virtual IP (MVIP).
- `Get-SFClusterPair`: [Cluster] Lists all of the clusters a cluster is paired with.
- `Get-SFClusterState`: [Node] Gets the state of nodes within Cluster.
- `Get-SFClusterStats`: [Cluster] Gets high-level activity measurements for the cluster.
- `Get-SFClusterVersionInfo`: [Cluster] Gets information about the Element OS software running on each node in the cluster.
- `Get-SFCompleteStats`: [Cluster] Used by SolidFire engineering to troubleshoot new features.
- `Get-SFConfig`: [Node] Gets the network and cluster configuration of a node.
- `Get-SFCurrentClusterAdmin`: [Cluster] Gets user information for the current cluster administrator.
- `Get-SFDefaultQoS`: [Cluster] Gets the default QoS values that are set for a volume if QoS is not supplied.
- `Get-SFDeletedVolume`: [Cluster] Gets the entire list of volumes that have been marked for deletion and purged from the system.
- `Get-SFDrive`: [Cluster] Gets a list of drives that exists in the cluster's active nodes.
- `Get-SFDriveConfig`: [Node] Gets drive information for each drive in the node.
- `Get-SFDriveHardwareInfo`: [Cluster] Gets hardware information for a specified drive.
- `Get-SFDriveStats`: [Cluster] Gets high-level activity measurements for a SolidFire drive.
- `Get-SFEvent`: [Cluster] Gets events detected on the cluster.
- `Get-SFFeatureStatus`: [Cluster] Gets the status of a cluster feature.
- `Get-SFFibreChannelPortInfo`: [Cluster] Gets information about Fibre Channel ports on all nodes in a cluster.
- `Get-SFFibreChannelSession`: [Cluster] Gets information about the active Fibre Channel sessions on a cluster.
- `Get-SFGroupSnapshot`: [Cluster] Gets information about all group snapshots that have been created.
- `Get-SFHardwareConfig`: [Node] Gets the hardware configuration information for a node. NOTE: This method is available only through the per-node API endpoint 5.0 or later.
- `Get-SFHardwareInfo`: [Node] Gets hardware information and status for a single node. This generally includes manufacturers, vendors, versions, drives, and other associated hardware identification information.
- `Get-SFInitiator`: [Cluster] Lists initiator IQNs or WWPNs.

- `Get-SFIscsiSession`: [Cluster] Gets information about the iSCSI sessions for each volume.
- `Get-SFLdapConfiguration`: [Cluster] Gets the current LDAP configuration on cluster.
- `Get-SFLimits`: [Cluster] Gets the limit values defined on the cluster.
- `Get-SFLoginSessionInfo`: [Cluster] Gets the period of time a login authentication is valid for both login shells and the TUI.
- `Get-SFLunAssignment`: [Cluster] Gets LUN mappings of a specified volume access group.
- `Get-SFNetworkConfig`: [Node] Gets the network configuration of a node.
- `Get-SFNetworkInterface`: [Cluster] Gets information about each network interface on all nodes in a cluster.
- `Get-SFNodeHardwareInfo`: [Cluster] Gets all the hardware info and status for the node specified. This generally includes manufacturers, vendors, versions, and other associated hardware identification information.
- `Get-SFNodeStats`: [Cluster] Gets the high-level activity measurements for a node or all nodes.
- `Get-SFNtpInfo`: [Cluster] Gets the current network time protocol (NTP) configuration information.
- `Get-SFNvramInfo`: [Node] Gets information from each node about the NVRAM card.
- `Get-SFPendingNode`: [Cluster] Gets information on pending SolidFire nodes that could be added to the cluster.
- `Get-SFPendingOperation`: [Node] Detects an operation on a node that is currently in progress.
- `Get-SFProtocolEndpoint`: [Cluster] Gets protocol endpoints in the system
- `Get-SFRawStats`: [Cluster] Used by SolidFire engineering to troubleshoot new features.
- `Get-SFRemoteLoggingHost`: [Cluster] Retrieves the current list of log servers.
- `Get-SFSchedule`: [Cluster] Gets the scheduled snapshots on a cluster.
- `Get-SFSnapshot`: [Cluster] Gets the attributes of each snapshot taken on a volume.
- `Get-SFSnmpAcl`: [Cluster] Gets the current SNMP access permissions on cluster nodes.
- `Get-SFSnmpInfo`: [Cluster] Gets the current SNMP configuration information.
- `Get-SFSnmpState`: [Cluster] Gets the current state of the SNMP feature.
- `Get-SFSnmpTrapInfo`: [Cluster] Gets current SNMP trap configuration information.
- `Get-SFStorageContainer`: [Cluster] Gets information for all storage containers currently in the system.
- `Get-SFStorageContainerEfficiency`: [Cluster] Gets efficiency information about a virtual volume storage container.
- `Get-SFSyncJob`: [Cluster] Gets information about the synchronization jobs that are running on a SolidFire cluster.
- `Get-SFSystemStatus`: [Cluster] Gets status of nodes in a SolidFire cluster.
- `Get-SFTests`: [Node] Gets the tests that are available to run on a node.
- `Get-SFUtilities`: [Node] Gets the utilities that are available to run on a node.
- `Get-SFVirtualNetwork`: [Cluster] Gets a list of all the configured virtual networks for the cluster.
- `Get-SFVirtualVolume`: [Cluster] Gets a list of the virtual volumes currently in the system. You can use this method to list all virtual volumes, or only list a subset.
- `Get-SFVirtualVolumeBinding`: [Cluster] Gets a list of VVol bindings.
- `Get-SFVirtualVolumeCount`: [Cluster] Gets the number of virtual volumes currently in the system.
- `Get-SFVirtualVolumeHost`: [Cluster] Gets a list of known ESX hosts.
- `Get-SFVirtualVolumeTask`: [Cluster] Gets a list of VVol Async Tasks.
- `Get-SFVolume`: [Cluster] Gets a list of volumes from the cluster.
- `Get-SFVolumeAccessGroup`: [Cluster] Gets information about a SolidFire volume access group.
- `Get-SFVolumeAccessGroupEfficiency`: [Cluster] Gets efficiency information about all volumes in a volume access group.

- `Get-SFVolumeEfficiency`: [Cluster] Gets efficiency information about a volume.
- `Get-SFVolumePair`: [Cluster] Gets a list of all of the active paired volumes paired with a volume.
- `Get-SFVolumeStats`: [Cluster] Gets high-level activity measurements for the specified volume(s).
- `Get-SFVolumeStatsByVirtualVolume`: [Cluster] Gets a list of virtual volume statistics for any virtual volume in system.
- `Invoke-SFApi`: [Node/Cluster] A generic cmdlet that invokes any SolidFire API method.
- `Invoke-SFRestoreDeletedVolume`: [Cluster] Marks a deleted volume as active again.
- `Invoke-SFRollbackToGroupSnapshot`: [Cluster] Rolls back all individual volumes in a snapshot group to each volume's individual snapshot.
- `Invoke-SFRollbackToSnapshot`: [Cluster] Makes an existing snapshot the "active" volume image.
- `Invoke-SFSecureEraseDrive`: [Cluster] Removes any residual data from a drive using a Security Erase Unit command and resetting the encryption key on the drive.
- `New-SFAccount`: [Cluster] Adds a new account to the system.
- `New-SFClone`: [Cluster] Creates a copy of the volume.
- `New-SFCloneMultiple`: [Cluster] Creates a clone of a group of specified volumes.
- `New-SFCluster`: [Cluster] Creates a new SolidFire cluster from a list of nodes that are configured with the same cluster name.
- `New-SFClusterAdmin`: [Cluster] Adds a new cluster admin.
- `New-SFGroupSnapshot`: [Cluster] Creates a point-in-time snapshot of a group of volumes.
- `New-SFInitiator`: [Cluster] Creates multiple new initiator IQNs or World Wide Port Names (WWPNs) and optionally assigns them aliases and attributes.
- `New-SFLdapClusterAdmin`: [Cluster] Adds a new LDAP cluster admin.
- `New-SFNodeSupportBundle`: [Node] Creates a support bundle file under the node's directory.
- `New-SFSchedule`: [Cluster] Creates a schedule that will make a snapshot of a volume.
- `New-SFSnapshot`: [Cluster] Creates a point-in-time snapshot of a volume.
- `New-SFStorageContainer`: [Cluster] Creates a new storage container.
- `New-SFVirtualNetwork`: [Cluster] Adds a new virtual network to a cluster configuration.
- `New-SFVolume`: [Cluster] Creates a new SolidFire volume.
- `New-SFVolumeAccessGroup`: [Cluster] Creates a new volume access group.
- `Remove-SFAccount`: [Cluster] Removes an existing account.
- `Remove-SFClusterAdmin`: [Cluster] Removes a cluster admin.
- `Remove-SFClusterFault`: [Cluster] Removes faults on the cluster.
- `Remove-SFClusterPair`: [Cluster] Disconnects the open connections between two clusters created by cluster pairing.
- `Remove-SFDeletedVolume`: [Cluster] Immediately and permanently purges a volume that has been deleted.
- `Remove-SFDrive`: [Cluster] Removes drives that are part of the cluster and ensures data is migrated to other drives in the cluster prior to removal.
- `Remove-SFGroupSnapshot`: [Cluster] Removes a group snapshot and optionally preserves the individual snapshots.
- `Remove-SFInitiator`: [Cluster] Deletes one or more initiators from the system (and from any associated volumes or volume access groups).
- `Remove-SFInitiatorFromVolumeAccessGroup`: [Cluster] Removes initiators from a volume access group.
- `Remove-SFNode`: [Cluster] Removes one or more nodes from the cluster.

- `Remove-SFNodeSupportBundle`: [Node] Deletes all support bundles generated with the New-SFNodeSupportBundle cmdlet.
- `Remove-SFSchedule`: [Cluster] Deletes a schedule.
- `Remove-SFSnapshot`: [Cluster] Deletes a snapshot.
- `Remove-SFStorageContainer`: [Cluster] Removes a storage container when you provide an ID.
- `Remove-SFVirtualNetwork`: [Cluster] Removes a configured virtual network for the cluster.
- `Remove-SFVolume`: [Cluster] Marks an active volume for deletion.
- `Remove-SFVolumeAccessGroup`: [Cluster] Removes a volume access group from the cluster.
- `Remove-SFVolumeFromVolumeAccessGroup`: [Cluster] Removes one or more volumes from a volume access group.
- `Remove-SFVolumePair`: [Cluster] Removes the remote pairing between two volumes.
- `Set-SFAccount`: [Cluster] Modifies an existing account.
- `Set-SFClusterAdmin`: [Cluster] Modifies properties on a cluster admin account (password and access).
- `Set-SFClusterConfig`: [Node] Sets the cluster configuration options for a node.
- `Set-SFClusterFullThreshold`: [Cluster] Changes the level at which an event is generated when the storage cluster approaches the capacity utilization requested.
- `Set-SFDefaultQoS`: [Cluster] Sets the default Quality of Service (QoS) values (measured in inputs and outputs per second, or IOPS) for all volumes not yet created.
- `Set-SFGroupSnapshot`: [Cluster] Modifies a point-in-time snapshot of a group of volumes.
- `Set-SFInitiator`: [Cluster] Sets the attributes of an existing initiator.
- `Set-SFLdapAuthentication`: [Cluster] Enables or disables LDAP configuration.
- `Set-SFLoginSessionInfo`: [Cluster] Sets remote logging from the nodes in the storage cluster to a centralized log server or servers.
- `Set-SFLunAssignment`: [Cluster] Defines custom LUN assignments for specific volumes.
- `Set-SFNetworkConfig`: [Node] Sets the network configuration options for a node.
- `Set-SFNtpInfo`: [Cluster] Configures the NTP on cluster nodes.
- `Set-SFRemoteLoggingHost`: [Cluster] Configures remote logging from the nodes in the storage cluster to a centralized log server or servers.
- `Set-SFSchedule`: [Cluster] Modifies a schedule which creates a snapshot of a volume.
- `Set-SFSnapshot`: [Cluster] Modifies a point-in-time snapshot of a volume.
- `Set-SFSnmpAcl`: [Cluster] Configures SNMP access permissions on the cluster node.
- `Set-SFSnmpInfo`: [Cluster] Configures SNMP v2 and v3 on the cluster nodes.
- `Set-SFSnmpTrapInfo`: [Cluster] Enables and disables generation of SolidFire SNMP notifications (traps) and specifies the set of network host computers that receive notifications.
- `Set-SFStorageContainer`: [Cluster] Modifies an existing storage container.
- `Set-SFVirtualNetwork`: [Cluster] Modifies various attributes of a VirtualNetwork object.
- `Set-SFVolume`: [Cluster] Modifies settings of an existing volume.
- `Set-SFVolumeAccessGroup`: [Cluster] Configures the name or attributes of a VAG.
- `Set-SFVolumePair`: [Cluster] Pauses or restarts replication between a pair of volumes.
- `Start-SFClusterPairing`: [Cluster] Creates an encoded key from a cluster that is used to pair with another cluster.
- `Start-SFVolumeBackup`: [Cluster] Initializes a backup (also known as a bulk volume read) session on a specified volume.
- `Start-SFVolumePairing`: [Cluster] Creates an encoded key from a volume that is used to pair with another volume.

- `Start-SFVolumeRestore`: [Cluster] Initializes a restore (also known as a bulk volume write) session on a specified volume.
- `Stop-SFClone`: [Cluster] Cancels a currently running clone operation. This method does not return anything.
- `Stop-SFGroupClone`: [Cluster] Stops an ongoing CloneMultipleVolumes process for a group of clones.
- `Test-SFConnectEnsemble`: [Node] Verifies connectivity with a specified database ensemble.
- `Test-SFConnectMvip`: [Node] Tests the management connection to the cluster. The test pings the MVIP and executes a simple API method to verify connectivity.
- `Test-SFConnectSvip`: [Node] Tests the storage connection to the cluster. The test pings the SVIP and executes a simple API method to verify connectivity.
- `Test-SFLdapAuthentication`: [Cluster] Verifies LDAP authentication configuration.
- `Test-SFPing`: [Node] Validates the connection to all nodes in the cluster on both 1G and 10G interfaces using ICMP packets.
- `Test-SFSendSnmpTrap`: [Cluster] Sends SNMP test signal to active trap targets.

Contacting SolidFire PowerShell Tools Support

If you have any questions or comments about this product, reach out to the development community at ThePub. We also monitor the GitHub PowerShell repository for open issues or pull requests. Your feedback helps us focus our efforts on new features and capabilities.

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