NetApp

Troubleshooting

Snapdrive for Unix

NetApp
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Troubleshooting

The troubleshooting tool in SnapDrive for UNIX enables you to find information in addition to solving problems.

At the time of this release, there were some known issues and limitations in SnapDrive for UNIX. While some issues affect all SnapDrive for UNIX host platforms, others affect only a specific host platform. For information about known issues and troubleshooting tips, see the *SnapDrive for UNIX Release Notes.*

Understanding error messages

SnapDrive for UNIX provides information about error messages, which appear at different locations and in various formats.

Error message locations

SnapDrive for UNIX provides information about error messages as command output and in various log files.

SnapDrive for UNIX provides information about error messages in the following places:

- The command output

  It displays all messages to the standard error output of the SnapDrive for UNIX command.

- The system log

  SnapDrive for UNIX logs all errors that have a severity level of Fatal and Admin error to the system log using the syslog(3) mechanism.

- The audit log file

  The audit log records the following information for each SnapDrive for UNIX command:

  - Who issued it
  - When it was issued
  - What its exit status was.

    This is very useful in determining what actually happened on a system.

- The trace log file

  The trace log records more detailed information about any errors that occur. NetApp Technical support uses this log when diagnosing problems.

Error message format

The format of the error message helps you determine the cause of the error.

SnapDrive for UNIX returns the standard error code information, which provides a more specific description of

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what caused the initial error condition. SnapDrive for UNIX error messages conform to the following format:

```
return code message-ID error type: message text
```

- *return code* — SnapDrive for UNIX error message ID that is linked to an exit status value which indicates the basic cause of the error condition.
- *message-ID* — A unique identifier used by NetApp technical support to locate the specific code that produced the error. If you need to call NetApp technical support, NetApp recommends that you record the message ID that accompanied the error message.
- *error type* — Specifies the type of error that SnapDrive for UNIX encountered. Return values include the following:
  - *Warning* — SnapDrive for UNIX executed the command but issued a warning about conditions that might require your attention.
  - *Command* — SnapDrive for UNIX failed to execute the command due to an error in the command line. Check the command line format and variables to ensure they are correct.
  - *Admin* — SnapDrive for UNIX failed to execute the command due to incompatibilities in the system configuration. Contact your System Administrator to review your configuration parameters.
  - *Fatal* — SnapDrive for UNIX failed to execute the command due to an unexpected condition. Fatal errors are rare. If a fatal error occurs and you have problems resolving it, contact NetApp technical support for assistance.
- *message text*--Information that explains the error. This text might include information from another component to provide more detail about the error. For example, if a command-line argument such as a disk group is missing, the error message tells you what is missing. Or the Manage ONTAP APIs that SnapDrive for UNIX uses to control the storage system might supply additional text to help explain the error. In this case, the text follows the basic SnapDrive for UNIX error message.

Sample error message

This is an error message in SnapDrive for UNIX.

The following message indicates a problem at the command prompt. The message-ID is 0001-377.

```
Return Code: 43

0001-377 Command error: Disk group name dg2 is already in use or
conflicts with another entity.
```

Common error messages

SnapDrive for UNIX has some common error messages. View the list of the common error messages.

Operating system limits on open files

SnapDrive for UNIX checks for the number of files opened simultaneously. If it crosses the limit, SnapDrive for UNIX throws an error.

SnapDrive for UNIX checks for operating system limitations on the number of files opened by a process.

> ℹ️ The default limit for the number of file handles opened simultaneously by one process varies based on your operating system. Check your operating system documentation to determine the limit.

If the number of open LUNs for one operation exceeds the operating system limit on the number of file handles opened simultaneously by one process, SnapDrive for UNIX exits with the following error message:

```
0001-001 Admin error: Unable to open device path-to-device
```

Deleting LUNs and clones leave stale devices in UNIX

Deleting LUNS and clones might leave stale devices in UNIX and deleting these stale devices is not performed by SnapDrive for UNIX.

When you create devices for LUNs and clones of LUNs from Snapshot copies, either manually or with SnapDrive for UNIX, device entries are automatically created in UNIX. Deletion of devices for LUNs and clones of LUNs from Snapshot copies with SnapDrive for UNIX might lead to stale devices in UNIX.

Deleting stale devices is an end-user responsibility and must be performed by a UNIX administrator.

Error message values

It is helpful for you to be aware of some of the more common error messages that you might see when using SnapDrive for UNIX, and to know how to address them.

The following table gives you detailed information about the most common errors that you might encounter when using SnapDrive for UNIX:

Error code	Return code	Type	Message	Solution
`0000-001`	NA	Admin	`Datapath has been configured for the storage system <STORAGE-SYSTEM-NAME>. Please delete it using snapdrive config delete -mgmtpath command and retry.`	Before deleting the storage system, delete the management path configured for the storage system by using the `snapdrive config delete -mgmtpath` command.

Error code	Return code	Type	Message	Solution
0001-242	NA	Admin	`Unable to connect using https to storage system: 10.72.197.213. Ensure that 10.72.197.213 is a valid storage system name/address, and if the storage system that you configure is running on a Data ONTAP operating in 7-Mode, add the host to the trusted hosts (options trusted.hosts) and enable SSL on the storage system 10.72.197.213 or modify the snapdrive.conf to use http for communication and restart the snapdrive daemon. If the storage system that you configure is running on clustered Data ONTAP, ensure that the Vserver name is mapped to IP address of the Vserver's management LIF.`	Check the following conditions: • Ensure that the storage system you are connected is a valid storage system. • If the storage system that you are trying to configure is running on Data ONTAP operating in 7-Mode, add the same to the trusted hosts, and enable SSL on the storage system or modify the `snapdrive.conf` file to use HTTP for communication; then restart the SnapDrive daemon. • If the storage system that you are trying to configure is running on clustered Data ONTAP, ensure that the Vserver name is mapped to the IP address of the Vserver's management logical interface (LIF).

Error code	Return code	Type	Message	Solution
`0003- 004`	NA	Admin	`Failed to deport LUN <LUN-NAME> on storage system <STORAGE-SYSTEM-NAME> from the Guest OS. Reason: No mapping device information populated from CoreOS`	This happens when you execute the `snapdrive snap disconnect` operation in the guest operating system. Check if there is any RDM LUN mapping in the ESX server or stale RDM entry in the ESX server. Delete the RDM mapping manually in the ESX server as well as in the guest operating system.
`0001- 019`	3	Command	`invalid command line—duplicate filespecs: <dg1/vol2 and dg1/vol2>`	This happens when the command executed has multiple host entities on the same host volume. For example, the command explicitly specified the host volume and the file system on the same host volume. Complete the following steps: 1. Remove all the duplicate instances of the host entities. 2. Execute the command again.

Error code	Return code	Type	Message	Solution

0001-023	11	Admin	`Unable to discover all LUNs in Disk Group dg1.Devices not responding: dg1 Please check the LUN status on the storage system and bring the LUN online if necessary or add the host to the trusted hosts (options trusted.hosts) and enable SSL on the storage system or retry after changing snapdrive.conf to use (http/https) for storage system communication and restarting snapdrive daemon.`	This happens when a SCSI inquiry on the device fails. A SCSI inquiry on the device can fail for multiple reasons.
				
				Execute the following steps:
				
				1. Set the device-retries configuration variable to a higher value.
				
				   For example, set it to 10 (the default value is 3) and execute the command again.
				
				2. Use the `snapdrive storage show` command with the -all option to get information about the device.
				
				3. Check if the FC or iSCSI service is up and running on the storage system.
				
				   If not, contact the storage administrator to bring the storage system online.
				
				4. Check if the FC or iSCSI service is up on the host.
				
				If the preceding solutions do not solve the issue, contact technical support.

0001-859	NA	Admin	`None of the host's interfaces have NFS permissions to access directory <directory name> on storage system <storage system name>`	In the `snapdrive.conf` file, ensure that the *check-export-permission-nfs-clone* configuration variable is set to `off`.
0002-253		Admin	`Flex clone creation failed`	It is a storage system side error. Please collect the sd-trace.log and storage system logs to troubleshoot it.

Error code	Return code	Type	Message	Solution
0002-264		Admin	`FlexClone is not supported on filer <filer name>`	FlexClone is not supported with the current Data ONTAP version of the storage system. Upgrade storage system's Data ONTAP version to 7.0 or later and then retry the command.
0002-265		Admin	`Unable to check flex_clone license on filer <filername>`	It is a storage system side error. Collect the sd-trace.log and storage system logs to troubleshoot it.
0002-266	NA	Admin	`FlexClone is not licensed on filer <filername>`	FlexClone is not licensed on the storage system. Retry the command after adding FlexClone license on the storage system.
0002-267	NA	Admin	`FlexClone is not supported on root volume <volume-name>`	FlexClones cannot be created for root volumes.
0002-270	NA	Admin	`The free space on the aggregate <aggregate-name> is less than <size> MB(megabytes) required for diskgroup/flexclone metadata`	1. The minimum space required on AIX native lvm is approximately 12.58 MB, others require ~8.39 MB. 2. For connecting to raw LUNs using FlexClones, 2 MB free space on the aggregate is required. 3. Free some space on the aggregate as per steps 1 and 2, and then retry the command.
0002-332	NA	Admin	`SD.SnapShot.Restore access denied on qtree storage_array1:/vol/vol1/qtree1 for user lnx197-142\john`	Contact Operations Manager administrator to grant the required capability to the user.
0002-364	NA	Admin	`Unable to contact DFM: lnx197-146, please change user name and/or password.`	Verify and correct the user name and password of sd-admin user.
0002-268	NA	Admin	`<volume-Name> is not a flexible volume`	FlexClones cannot be created for traditional volumes.

Error code	Return code	Type	Message	Solution
`0001-552`	NA	Command	`Not a valid Volume-clone or LUN-clone`	Clone-split cannot be created for traditional volumes.
`0001-553`	NA	Command	`Unable to split "FS-Name" due to insufficient storage space in <Filer- Name>`	Clone-split continues the splitting process and suddenly, the clone split stops due to insufficient storage space not available in the storage system.
`9000- 023`	1	Command	`No arguments for keyword -lun`	This error occurs when the command with the `-lun` keyword does not have the `lun_name` argument. What to do: Do either of the following; 1. Specify the `lun_name` argument for the command with the `-lun` keyword. 2. Check the SnapDrive for UNIX help message
`0001-028`	1	Command	`File system </mnt/qa/dg4/vol 1> is of a type (hfs) not managed by snapdrive. Please resubmit your request, leaving out the file system <mnt/qa/dg4/vol1 >`	This error occurs when a non-supported file system type is part of a command. What to do: Exclude or update the file system type and then use the command again. For the latest software compatibility information see the Interoperability Matrix.
`9000-030`	1	Command	`-lun may not be combined with other keywords`	This error occurs when you combine the `-lun` keyword with the `-fs` or `-dg` keyword. This is a syntax error and indicates invalid usage of command. What to do: Execute the command again only with the `-lun` keyword.

Error code	Return code	Type	Message	Solution
0001-034	1	Command	`mount failed: mount: <device name> is not a valid block device"`	This error occurs only when the cloned LUN is already connected to the same filespec present in Snapshot copy and then you try to execute the `snapdrive snap restore` command. The command fails because the iSCSI daemon remaps the device entry for the restored LUN when you delete the cloned LUN. What to do: Do either of the following: 1. Execute the `snapdrive snap restore` command again. 2. Delete the connected LUN (if it is mounted on the same filespec as in Snapshot copy) before trying to restore a Snapshot copy of an original LUN.
0001-046 and 0001-047	1	Command	`Invalid snapshot name: </vol/vol1/NO_FILER_PRE FIX>` or `Invalid snapshot name: NO_LONG_FILERNAME - filer volume name is missing`	This is a syntax error which indicates invalid use of command, where a Snapshot operation is attempted with an invalid Snapshot name. What to do: Complete the following steps: 1. Use the snapdrive snap list - filer <filer-volume-name> command to get a list of Snapshot copies. 2. Execute the command with the long_snap_name argument.
9000-047	1	Command	`More than one -snapname argument given`	SnapDrive for UNIX cannot accept more than one Snapshot name in the command line for performing any Snapshot operations. What to do: Execute the command again, with only one Snapshot name.

Error code	Return code	Type	Message	Solution
9000-049	1	Command	`-dg and -vg may not be combined`	This error occurs when you combine the `-dg` and `-vg` keywords. This is a syntax error and indicates invalid usage of commands. What to do: Execute the command either with the `-dg` or `-vg` keyword.
9000-050	1	Command	`-lvol and -hostvol may not be combined`	This error occurs when you combine the `-lvol` and `-hostvol` keywords. This is a syntax error and indicates invalid usage of commands. What to do: Complete the following steps: 1. Change the `-lvol` option to `-hostvol` option or vice-versa in the command line. 2. Execute the command.
9000-057	1	Command	`Missing required -snapname argument`	This is a syntax error that indicates an invalid usage of command, where a Snapshot operation is attempted without providing the snap_name argument. What to do: Execute the command with an appropriate Snapshot name.
0001-067	6	Command	`Snapshot hourly.0 was not created by snapdrive.`	These are the automatic hourly Snapshot copies created by Data ONTAP.
0001-092	6	Command	`snapshot <non_existent_24 965> doesn't exist on a filervol exocet: </vol/vol1>`	The specified Snapshot copy was not found on the storage system. What to do: Use the `snapdrive snap list` command to find the Snapshot copies that exist in the storage system.

Error code	Return code	Type	Message	Solution
`0001- 099`	10	Admin	`Invalid snapshot name: <exocet:/vol2/db vol:New SnapName> doesn't match filer volume name <exocet:/vol/vol 1>`	This is a syntax error that indicates invalid use of commands, where a Snapshot operation is attempted with an invalid Snapshot name. What to do: Complete the following steps: 1. Use the `snapdrive snap list - filer <filer-volume-name>` command to get a list of Snapshot copies. 2. Execute the command with the correct format of the Snapshot name that is qualified by SnapDrive for UNIX. The qualified formats are: `long_snap_name` and `short_snap_name`.
`0001-122`	6	Admin	`Failed to get snapshot list on filer <exocet>: The specified volume does not exist.`	This error occurs when the specified storage system (filer) volume does not exist. What to do: Complete the following steps: 1. Contact the storage administrator to get the list of valid storage system volumes. 2. Execute the command with a valid storage system volume name.

Error code	Return code	Type	Message	Solution
`0001-124`	111	Admin	`Failed to removesnapshot <snap_delete_multi_inuse_24374> on filer <exocet>: LUN clone`	The `Snapshot delete` operation failed for the specified Snapshot copy because the LUN clone was present. What to do: Complete the following steps: 1. Use the snapdrive storage show command with the `-all` option to find the LUN clone for the Snapshot copy (part of the backing Snapshot copy output). 2. Contact the storage administrator to split the LUN from the clone. 3. Execute the command again.
`0001-155`	4	Command	`Snapshot <dup_snapname23980> already exists on <exocet: /vol/vol1>. Please use -f (force) flag to overwrite existing snapshot`	This error occurs if the Snapshot copy name used in the command already exists. What to do: Do either of the following: 1. Execute the command again with a different Snapshot name. 2. Execute the command again with the `-f` (force) flag to overwrite the existing Snapshot copy.
`0001-158`	84	Command	`diskgroup configuration has changed since <snapshotexocet: /vol/vo l1:overwrite_noforce_25 078> was taken. removed hostvol </dev/dg3/vol4> Please use '-f' (force) flag to override warning and complete restore`	The disk group can contain multiple LUNs and when the disk group configuration changes, you encounter this error. For example, when creating a Snapshot copy, the disk group consisted of X number of LUNs and after making the copy, the disk group can have X+Y number of LUNs. What to do: Use the command again with the `-f` (force) flag.

Error code	Return code	Type	Message	Solution
`0001-185`	NA	Command	`storage show failed: no NETAPP devices to show or enable SSL on the filers or retry after changing snapdrive.conf to use http for filer communication.`	This problem can occur for the following reasons: If the iSCSI daemon or the FC service on the host has stopped or is malfunction, the `snapdrive storage show -all` command fails, even if there are configured LUNs on the host. What to do: Resolve the malfunctioning iSCSI or FC service. The storage system on which the LUNs are configured is down or is undergoing a reboot. What to do: Wait until the LUNs are up. The value set for the `usehttps-to-filer` configuration variable might not be a supported configuration. What to do: Complete the following steps: 1. Use the `sanlun lun show all` command to check if there are any LUNs mapped to the host. 2. If there are any LUNs mapped to the host, follow the instructions mentioned in the error message. Change the value of the `usehttps-to-filer` configuration variable (to "on" if the value is "off"; to "off' if the value is "`on").
`0001-226`	3	Command	`'snap create' requires all filespecs to be accessible Please verify the following inaccessible filespec(s): File System: </mnt/qa/dg1/vol3>`	This error occurs when the specified host entity does not exist. What to do: Use the `snapdrive storage show` command again with the `-all` option to find the host entities which exist on the host.

Error code	Return code	Type	Message	Solution

`0001- 242`	18	Admin	`Unable to connect to filer: <filername>`	SnapDrive for UNIX attempts to connect to a storage system through the secure HTTP protocol. The error can occur when the host is unable to connect to the storage system. What to do: Complete the following steps:
				
				1. Network problems:
				  a. Use the nslookup command to check the DNS name resolution for the storage system that works through the host.
				  b. Add the storage system to the DNS server if it does not exist.
				
				You can also use an IP address instead of a host name to connect to the storage system.
				
				1. Storage system Configuration:
				  a. For SnapDrive for UNIX to work, you must have the license key for the secure HTTP access.
				  b. After the license key is set up, check if you can access the storage system through a Web browser.
				2. Execute the command after performing either Step 1 or Step 2 or both.

`0001- 243`	10	Command	`Invalid dg name: <SDU_dg1>`	This error occurs when the disk group is not present in the host and subsequently the command fails. For example, *SDU_dg1* is not present in the host. What to do: Complete the following steps: 1. Use the `snapdrive storage show -all` command to get all the disk group names. 2. Execute the command again, with the correct disk group name.

Error code	Return code	Type	Message	Solution
`0001- 246`	10	Command	`Invalid hostvolume name: </mnt/qa/dg2/BAD FS>, the valid format is <vgname/hostvoln ame>, i.e. <mygroup/vol2>`	What to do: Execute the command again, with the following appropriate format for the host volume name: `vgname/hostvolname`
`0001- 360`	34	Admin	`Failed to create LUN </vol/badvol1/na nehp13_ unnewDg_fve_SdLu n> on filer <exocet>: No such volume`	This error occurs when the specified path includes a storage system volume which does not exist. What to do: Contact your storage administrator to get the list of storage system volumes which are available for use.
`0001- 372`	58	Command	`Bad lun name:: </vol/vol1/sce_l un2a> - format not recognized`	This error occurs if the LUN names that are specified in the command do not adhere to the pre-defined format that SnapDrive for UNIX supports. SnapDrive for UNIX requires LUN names to be specified in the following pre-defined format: `<filer-name: /vol/<volname>/<lun-name>` What to do: Complete the following steps: 1. Use the `snapdrive help` command to know the pre-defined format for LUN names that SnapDrive for UNIX supports. 2. Execute the command again.

Error code	Return code	Type	Message	Solution
`0001- 373`	6	Command	`The following required 1 LUN(s) not found: exocet:</vol/vol1/NotARealLun>`	This error occurs when the specified LUN is not found on the storage system. What to do: Do either of the following: 1. To see the LUNs connected to the host, use the `snapdrive storage show -dev` command or `snapdrive storage show -all` command. 2. To see the entire list of LUNs on the storage system, contact the storage administrator to get the output of the lun show command from the storage system.
`0001- 377`	43	Command	`Disk group name <name> is already in use or conflicts with another entity.`	This error occurs when the disk group name is already in use or conflicts with another entity. What to do: Do either of the following: Execute the command with the -autorename option Use the `snapdrive storage show` command with the `-all` option to find the names that the host is using. Execute the command specifying another name that the host is not using.
`0001- 380`	43	Command	`Host volume name <dg3/vol1> is already in use or conflicts with another entity.`	This error occurs when the host volume name is already in use or conflicts with another entity What to do: Do either of the following: 1. Execute the command with the `-autorename` option. 2. Use the `snapdrive storage show` command with the `-all` option to find the names that the host is using. Execute the command specifying another name that the host is not using.

Error code	Return code	Type	Message	Solution
`0001- 417`	51	Command	`The following names are already in use: <mydg1>. Please specify other names.`	What to do: Do either of the following: 1. Execute the command again with the `-autorename` option. 2. Use `snapdrive storage show - all` command to find the names that exists on the host. Execute the command again to explicitly specify another name that the host is not using.
`0001- 430`	51	Command	`You cannot specify both -dg/vg dg and -lvol/hostvol dg/vol`	This is a syntax error which indicates an invalid usage of commands. The command line can accept either `-dg/vg` keyword or the `-lvol/hostvol` keyword, but not both. What to do: Execute the command with only the `-dg/vg` or `-lvol/hostvol` keyword.
`0001- 434`	6	Command	`snapshot exocet:/vol/vol1 :NOT_E IST doesn't exist on a storage volume exocet:/vol/vol1`	This error occurs when the specified Snapshot copy is not found on the storage system. What to do: Use the `snapdrive snap list` command to find the Snapshot copies that exist in the storage system.

Error code	Return code	Type	Message	Solution
`0001- 435`	3	Command	`You must specify all host volumes and/or all file systems on the command line or give the -autoexpand option. The following names were missing on the command line but were found in snapshot <snap2_5VG_SINGL ELUN _REMOTE>: Host Volumes: <dg3/vol2> File Systems: </mnt/qa/dg3/vol 2>`	The specified disk group has multiple host volumes or file system, but the complete set is not mentioned in the command. What to do: Do either of the following: 1. Re-issue the command with the `- autoexpand` option. 2. Use the `snapdrive snap show` command to find the entire list of host volumes and file systems. Execute the command specifying all the host volumes or file systems.
`0001- 440`	6	Command	`snapshot snap2`*`5VG_SINGLEL UN`* `REMOTE does not contain disk group 'dgBAD'`	This error occurs when the specified disk group is not part of the specified Snapshot copy. What to do: To find if there is any Snapshot copy for the specified disk group, do either of the following: 1. Use the `snapdrive snap list` command to find the Snapshot copies in the storage system. 2. Use the `snapdrive snap show` command to find the disk groups, host volumes, file systems, or LUNs that are present in the Snapshot copy. 3. If a Snapshot copy exists for the disk group, execute the command with the Snapshot name.

Error code	Return code	Type	Message	Solution

`0001- 442`	1	Command	`More than one`
			`destination -`
			`<dis> and <dis1>`
			`specified for a`
			`single snap`
			`connect source`
			`<src>. Please`
			`retry using`
			`separate`
			`commands.`
				What to do: Execute a separate `snapdrive snap connect` command, so that the new destination disk group name (which is part of the snap connect command) is not the same as what is already part of the other disk group units of the same `snapdrive snap connect` command.

`0001- 465`	1	Command	`The following`
			`filespecs do not`
			`exist and cannot`
			`be deleted: Disk`
			`Group:`
			`<nanehp13_ dg1>`
				The specified disk group does not exist on the host, therefore the deletion operation for the specified disk group failed.
				
				What to do: See the list of entities on the host by using the `snapdrive storage show` command with the `all` option.

Error code	Return code	Type	Message	Solution
`0001- 476`	NA	Admin	`Unable to discover the device associated with <long lun name> If multipathing in use, there may be a possible multipathing configuration error. Please verify the configuration and then retry.`	There can be many reasons for this failure. • Invalid host configuration: The iSCSI, FC, or the multipathing solution is not properly setup. • Invalid network or switch configuration: The IP network is not setup with the proper forwarding rules or filters for iSCSI traffic, or the FC switches are not configured with the recommended zoning configuration. The preceding issues are very difficult to diagnose in an algorithmic or sequential manner. What to do: NetAppIt is recommends that before you use SnapDrive for UNIX, you follow the steps recommended in the Host Utilities Setup Guide (for the specific operating system) for discovering LUNs manually. After you discover LUNs, use the SnapDrive for UNIX commands.
`0001- 486`	12	Admin	`LUN(s) in use, unable to delete. Please note it is dangerous to remove LUNs that are under Volume Manager control without properly removing them from Volume Manager control first.`	SnapDrive for UNIX cannot delete a LUN that is part of a volume group. What to do: Complete the following steps: 1. Delete the disk group using the command `snapdrive storage delete -dg <dgname>`. 2. Delete the LUN.

Error code	Return code	Type	Message	Solution

`0001- 494`	12	Command	`Snapdrive cannot delete <mydg1>, because 1 host volumes still remain on it. Use -full flag to delete all file systems and host volumes associated with <mydg1>`	SnapDrive for UNIX cannot delete a disk group until all the host volumes on the disk group are explicitly requested to be deleted.
				
				What to do: Do either of the following:
				
				1. Specify the `-full` flag in the command.
				2. Complete the following steps:
				  1. Use the `snapdrive storage show -all` command to get the list of host volumes that are on the disk group.
				  2. Mention each of them explicitly in the SnapDrive for UNIX command.

Error code	Return code	Type	Message	Solution

`0001- 541`	65	Command	`Insufficient access permission to create a LUN on filer, <exocet>.`	SnapDrive for UNIX uses the `sdhostname.prbac` or `sdgeneric.prbacfile` on the root storage system (filer) volume for its pseudo access control mechanism.
				
				What to do: Do either of the following:
				
				1. Modify the `sd-hostname.prbac` or `sdgeneric. prbac` file in the storage system to include the following requisite permissions (can be one or many):
				
				   1. NONE
				   2. SNAP CREATE
				   3. SNAP USE
				   4. SNAP ALL
				   5. STORAGE CREATE DELETE
				   6. STORAGE USE
				   7. STORAGE ALL
				   8. ALL ACCESS
				
				NOTE:
				
				• If you do not have `sd-hostname.prbac` file, then modify the `sdgeneric.prbac` file in the storage system.
				
				• If you have both `sd-hostname.prbac` and `sdgeneric.prbac` file, then modify the settings only in `sdhostname.prbac` file in the storage system.
				
				   1. In the `snapdrive.conf` file, ensure that the *all-access-if-rbacunspecified* configuration variable is set to "on".

Error code	Return code	Type	Message	Solution
`0001-559`	NA	Admin	`Detected I/Os while taking snapshot. Please quiesce your application. See Snapdrive Admin. Guide for more information.`	This error occurs if you try to create a Snapshot copy, while parallel input/output operations occur on the file specification and the value of `snapcreate-cg-timeout` is set to urgent. What to do: Increase the value of consistency groups time out by setting the value of `snapcreate-cg-timeout` to relaxed.
`0001- 570`	6	Command	`Disk group <dg1> does not exist and hence cannot be resized`	This error occurs when the disk group is not present in the host and subsequently the command fails. What to do: Complete the following steps: 1. Use the `snapdrive storage show -all` command to get all the disk group names. 2. Execute the command with the correct disk group name.
`0001- 574`	1	Command	`<VmAssistant> lvm does not support resizing LUNs in disk groups`	This error occurs when the volume manager that is used to perform this task does not support LUN resizing. SnapDrive for UNIX depends on the volume manager solution to support the LUN resizing, if the LUN is part of a disk group. What to do: Check if the volume manager that you are using supports LUN resizing.

Error code	Return code	Type	Message	Solution
`0001- 616`	6	Command	`1 snapshot(s) NOT found on filer: exocet:/vol/vol1 :MySnapName>`	SnapDrive for UNIX cannot accept more than one Snapshot name in the command line for performing any Snapshot operations. To rectify this error, re-issue the command with one Snapshot name. This is a syntax error which indicates invalid use of command, where a Snapshot operation is attempted with an invalid Snapshot name. To rectify this error, complete the following steps: 1. Use the `snapdrive snap list - filer <filer- volume-name>` command to get a list of Snapshot copies. 2. Execute the command with the `long_snap_name` argument.
`0001- 640`	1	Command	`Root file system / is not managed by snapdrive`	This error occurs when the root file system on the host is not supported by SnapDrive for UNIX. This is an invalid request to SnapDrive for UNIX.
`0001- 684`	45	Admin	`Mount point <fs_spec> already exists in mount table`	What to do: Do either of the following: 1. Execute the SnapDrive for UNIX command with a different mountpoint. 2. Check that the mountpoint is not in use and then manually (using any editor) delete the entry from the following files: AIX: /etc/filesystems

Error code	Return code	Type	Message	Solution
`0001- 796 and 0001- 767`	3	Command	`0001-796 and 0001-767`	SnapDrive for UNIX does not support more than one LUN in the same command with the `-nolvm` option. What to do: Do either of the following: 1. Use the command again to specify only one LUN with the `-nolvm` option. 2. Use the command without the `-nolvm` option. This will use the supported volume manager present in the host, if any.
`2715`	NA	NA	`Volume restore zephyr not available for the filer <filename>Please proceed with lun restore`	For older Data ONTAP versions, volume restore zapi is not available. Reissue the command with SFSR.
`2278`	NA	NA	`SnapShots created after <snapname> do not have volume clones … FAILED`	Split or delete the clones
`2280`	NA	NA	`LUNs mapped and not in active or SnapShot <filespec-name> FAILED`	Un-map/ storage disconnect the host entities
`2282`	NA	NA	`No SnapMirror relationships exist … FAILED`	1. Either Delete the relationships, or 2. If SnapDrive for UNIX RBAC with Operations Manager is configured, ask the Operations Manager administrator to grant `SD.Snapshot.DisruptBaseline` capability to the user.

Error code	Return code	Type	Message	Solution
2286	NA	NA	`LUNs not owned by <fsname> are application consistent in snapshotted volume … FAILED. Snapshot luns not owned by <fsname> which may be application inconsistent`	Verify that the LUNs mentioned in the check results are not in use. Only after that, use the `-force` option.
2289	NA	NA	`No new LUNs created after snapshot <snapname> … FAILED`	Verify that the LUNs mentioned in the check results are not in use. Only after that, use the `-force` option.
2290	NA	NA	`Could not perform inconsistent and newer Luns check. Snapshot version is prior to SDU 4.0`	This happens with SnapDrive 3.0 for UNIX Snapshots when used with `-vbsr`. Manually check that any newer LUNs created will not be used anymore and then proceed with `-force` option.
2292	NA	NA	`No new SnapShots exist… FAILED. SnapShots created will be lost.`	Check that snapshots mentioned in the check results will no longer be used. And if so, then proceed with `-force` option.
2297	NA	NA	`Both normal files) and LUN(s) exist … FAILED`	Ensure that the files and LUNs mentioned in the check results will not be used anymore. And if so, then proceed with `-force` option.
2302	NA	NA	`NFS export list does not have foreign hosts … FAILED`	Contact the storage administrator to remove the foreign hosts from the export list or ensure that the foreign hosts are not using the volumes through NFS.

Error code	Return code	Type	Message	Solution
9000-305	NA	Command	`Could not detect type of the entity /mnt/my_fs. Provide a specific option (-lun, -dg, -fs or -lvol) if you know the type of the entity`	Verify the entity if it already exists in the host. If you know the type of the entity provide the file-spec type.
9000-303	NA	Command	`Multiple entities with the same name - /mnt/my_fs exist on this host. Provide a specific option (-lun, -dg, -fs or -lvol) for the entity you have specified.`	The user has multiple entities with the same name. In this case user has to provide the file-spec type explicitly.
9000-304	NA	Command	`/mnt/my_fs is detected as keyword of type file system, which is not supported with this command.`	Operation on the auto detected file_spec is not supported with this command. Verify with the respective help for the operation.
9000-301	NA	Command	`Internal error in auto defection`	Auto detection engine error. Provide the trace and daemon log for further analysis.
NA	NA	Command	`snapdrive.dc tool unable to compress data on RHEL 5Ux environment`	Compression utility is not installed by default. You must install the compression utility `ncompress`, for example `ncompress-4.2.4-47.i386.rpm`. To install the compression utility, enter the following command: rpm -ivh ncompress-4.2.4-47.i386.rpm
NA	NA	Command	`Invalid filespec`	This error occurs when the specified host entity does not exist or inaccessible.

Error code	Return code	Type	Message	Solution
NA	NA	Command	`Job Id is not valid`	This message is displayed for the clone split status, result, or stop operation if the specified job ID is invalid job or the result of the job is already queried. You must specify a valid or available job ID and retry this operation.
NA	NA	Command	`Split is already in progress`	This message is displayed when: • Clone split is already in progress for the given volume clone or LUN clone. • Clone split is completed but the job is not removed.
NA	NA	Command	`Not a valid Volume-Clone or LUN-Clone`	Specified filespec or LUN pathname is not a valid volume clone or LUN clone.
NA	NA	Command	`No space to split volume`	The error message is due to the required storage space is not available to split the volume. Free enough space in the aggregate to split the volume clone.
NA	NA	NA	`filer-data:junction_db sw information not available— LUN may be offline`	This error could occur when the `/etc/fstab` file was incorrectly configured. In this case, while the mount paths were NFS, but was considered as LUNs by SnapDrive for UNIX. What to do: Add "/" between the filer name and the junction path.
0003-013	NA	Command	`A connection error occurred with Virtual Interface server. Please check if Virtual Interface server is up and running.`	This error could occur when the license in the esx server expires and VSC service is not running. What to do: Install ESX Server license and restart the VSC service.

Error code	Return code	Type	Message	Solution
`0002-137`	NA	Command	`Unable to get the fstype and mntOpts for 10.231.72.21:/vol/ips_vol3 from snapshot 10.231.72.21:/vol/ips_vol3:t5120 -206-66_nfssnap.`	What to do: Do either of the following 1. Add the IP address of the datapath interface or specific IP address as the host name into the `/etc/hosts` file. 2. Create an entry for your datapath interface or host name IP address in the DNS. 3. Configure the data LIFS of Vserver to support the Vserver management (with firewall-policy=mgmt) **`net int modify -vserver Vserver_name LIF_name- firewall-policy mgmt`** 4. Add the host's management IP address to the export rules of the Vserver.
`13003`	NA	Command	`Insufficient privileges: user does not have read access to this resource.`	This issue is seen in SnapDrive for UNIX 5.2.2. Prior to SnapDrive for UNIX 5.2.2, the vsadmin user configured in SnapDrive for UNIX needs to have 'vsadmin_volume' role. From SnapDrive for UNIX 5.2.2, the vsadmin user needs elevated access roles, else snapmirror-get-iter zapi fails. What to do: Create role vsadmin instead of vsadmin_volume and assign to vsadmin user.

Error code	Return code	Type	Message	Solution
0001-016	NA	Command	Could not acquire lock file on storage system.	Snapshot creation fails due to insufficient space in the volume. Or due to the existence of `.snapdrive_lock` file in the storage system. What to do: Do either of the following: 1. Delete file `/vol/<volname>/.snapdrive_lock` on storage system and retry snap create operation. To delete the file, login to storage system, enter advanced privilege mode and execute the command `rm /vol/<volname>/.snapdrive_lock` at storage system prompt. 2. Ensure sufficient space is available in the volume before taking snapshot.
0003-003	NA	Admin	Failed to export LUN on storage system `<controller name>` to the Guest OS. Reason: FLOW-11019: Failure in MapStorage: No storage system configured with interface.	This error occurs due to the absence of storage controllers, which is configured in ESX server. What to do: Add the storage controllers and credentials in the ESX server.
0001-493	NA	Admin	Error creating mount point: Unexpected error from mkdir: mkdir: cannot create directory: Permission denied Check whether mount point is under automount paths.	Clone operations fail when the destination file spec is under the automount paths. What to do: Make sure that the destination filespec/mount point is not under the automount paths.

Error code	Return code	Type	Message	Solution
0009-049	NA	Admin	`Failed to restore from snapshot on storage system: Failed to restore file from Snapshot copy for volume on Vserver.`	This error occurs when the volume size is full or the volume has crossed the autodelete threshold. What to do: Increase the volume size and ensure that the threshold value for a volume is maintained below the autodelete value.
0001-682	NA	Admin	`Host preparation for new LUNs failed: This functionality is not supported.`	This error occurs when the new LUN IDs creation fails. What to do: Increase the number of LUNs to be created using **snapdrive config prepare luns-*count count_value*** command.
0001-060	NA	Admin	`Failed to get information about Diskgroup: Volume Manager linuxlvm returned vgdisplay command failed.`	This error occurs when SnapDrive for UNIX 4.1.1 and below version is used on RHEL 5 and above version. What to do: Upgrade the Snapdrive version and retry since support is not available for SnapDrive for UNIX 4.1.1 and below version from RHEL5 onwards.
0009-045	NA	Admin	`Failed to create snapshot on storage system: Snapshot operation not allowed due to clones backed by snapshots. Try again after sometime.`	This error occurs during Single-file Snap Restore (SFSR) operation followed by immediate snapshot creation. What to do: Retry the Snapshot create operation after sometime.
0001-304	NA	Admin	`Error creating disk/volume group: Volume manager failed with: metainit: No such file or directory.`	This error occurs while performing Snapdrive storage create dg, hostvol and fs Solaris with Sun Cluster environment. What to do: Uninstall the Sun Cluster software and retry the operations.

Error code	Return code	Type	Message	Solution
`0001-122`	NA	Admin	`Failed to get snapshot list on filer the specified volume <volname> does not exist.`	This error occurs when SnapDrive for UNIX tries to create Snapshot using the exported active file system path of the volume (actual path) and not with the dummy exported volume path. What to do: Use volumes with the exported active file system path.
`0001-476`	NA	Admin	`Unable to discover the device. If multipathing in use, there may be a possible multipathing configuration error. Please verify the configuration and then retry.`	There are multiple reasons for this error could occur. The following conditions to be checked: Before you create the storage, ensure zoning is proper. Check the transport protocol and multipathing-type in `snapdrive.conf` file and ensure proper values are set. Check the multipath daemon status, if multipathing-type is set as nativempio start multipathd and restart the snapdrived daemon.
NA	NA	NA	`FS fails to be mounted after reboot due to unavailability of LV.`	This happens when LV is not available after the reboot. Hence the filesystem is not mounted. What to do: After the reboot, do vgchange which brings LV up and then mount the file system.

Error code	Return code	Type	Message	Solution
NA	NA	NA	`Status call to SDU daemon failed.`	There are multiple reasons for this error to occur. This error indicates that the SnapDrive for UNIX job related to a specific operation has failed abruptly (child daemon ended) before the operation could be completed. If the storage creation or the deletion fails with "Status call to SnapDrive for UNIX daemon failed", it could be because of failing call to ONTAP to get the volume information. volume-get-iter zapi might fail. Retry the snapdrive operations after sometime. SnapDrive for UNIX operation might fail while executing "kpartx -l" while creating partitions or other operating system commands due to the inappropriate `multipath.conf` values. Ensure proper values are set and no duplicate keywords exist in `multipath.conf` file. While performing SFSR, SnapDrive for UNIX creates temporary Snapshot which might fail if the maximum number of snapshot value has reached. Delete the older snapshots and retry the restore operation.
NA	NA	NA	`map in use; can't flush`	This error occurs if there are any stale devices left behind when trying to flush the multipath device during the storage delete or disconnect operations. What to do: Check if there are any stale devices by executing the command **multipath** `-l egrep -ifail` and ensure `flush_on_last_del` is set to 'yes' in the `multipath.conf` file.

Related information

SnapDrive storage create command fails when multiple SAN paths are present but multipathing is disabled

The SnapDrive storage `create` command fails when multiple SAN paths are present but multipathing is disabled.

For example, for two iSCSI LIFs for an SVM:

```
[root@scspr0189449001 etc]# iscsiadm --mode session --rescan
Rescanning session [sid: 1, target: iqn.1992-
08.com.netapp:sn.f7335762b23e11e695360050569c153a:vs.3, portal:
10.224.70.253,3260]
Rescanning session [sid: 2, target: iqn.1992-
08.com.netapp:sn.f7335762b23e11e695360050569c153a:vs.3, portal:
10.224.70.254,3260]
```

When `multipathing-type` is set to `none` in the snapdrive.conf file and the multipath service is disabled, trying a storage create using LVM, returns the following error:

```
root@scspr0189449001 etc]# snapdrive storage create -fs /mnt/test -lun
rgvsim:/vol/asmvol/test -lunsize 500m
        LUN rgvsim:/vol/asmvol/test ... created
        mapping new lun(s) ... done
        discovering new lun(s) ... *failed*
        Cleaning up ...
         - LUN rgvsim:/vol/asmvol/test ... deleted
         0001-422 Admin error: LVM initialization of luns failed:
        Device /dev/sdb,/dev/sdc not found (or ignored by filtering).
```

This happens because the `pvcreate` command uses both the devices separated by a comma as a single device `pvcreate /dev/sdb,/dev/sdc` and a device named `/dev/sdb,/dev/sdc` that does not exist.

When there are multiple paths to storage and LVM needs to be used, then multipathing must be enabled.

If a volume is deleted on the Vserver without unmounting the volume on the host system, the snapdrive storage show command displays the incorrect actual path

If a volume is deleted on the Vserver without unmounting the volume on the host system, and when you execute `snapdrive storage show -v` command, the actual path is

incorrect.

You might also experience the same when the volume is not junctioned on the Vserver. The following example show the incorrect actual path:

```
# snapdrive storage show -fs /mnt /file1 -v
NFS device: vs1:/vol_test1 mount point: /mnt
(non-persistent)
Protocol: NFS Actual Path:
vs1:/vol/roovol1/vol_test1
```

Snap restore operation fails when you have nfsv3 and nfsv4 versions enabled in the host and storage system

Snap restore operation fails when there are nfsv3 and nfsv4 versions enabled in the host and storage system.

If you have nfsv3 and nfsv4 versions enabled in the host and storage system, and mount the volume on the host without `-o vers` option, then `nobody:nobody` ownership is set for files and directories.

Workaround

It is recommended to use `-o vers` option while mounting the nfs volume or check the nfs default options to an appropriate value on the host.

Snap disconnect operation fails to delete cloned volume

In some cases, `snapdrive snap disconnect` operation fails to delete cloned volume and the error message `does not look SnapDrive-generated` appears.

The workaround for the problem is to revert to the original name of the Snapshot copy, and ensure that the *bypass-snapdrive-clone-generated-check* is set to on in the `snapdrive.conf` file.

SnapDrive for UNIX reports an error if iSCSI is not running

SnapDrive for UNIX running on a Linux host returns an error message as `"HBA assistant not found"`.

This happens after one of the following situations occurs:

- An iSCSI stop was issued.
- A takeover has happened and the iSCSI service has not started yet.
- A giveback is happening and the iSCSI service has not started yet.

For SnapDrive for UNIX to execute, the iSCSI service must be running. If the service is halted, SnapDrive for UNIX returns an error message. For example, if you execute the `snapdrive storage show` command

when the iSCSI service is not running, you might view the output similar to the following: `# snapdrive storage show -dg toaster1 0001-877 Admin error: HBA assistant not found. Commands involving LUNs should fail.`

Workaround

Ensure the iSCSI service is running. If the storage system is in the process of a takeover or giveback, wait until it starts the iSCSI service. If the storage system is in normal running mode, restart the iSCSI service and then restart the SnapDrive for UNIX daemon by running the `snapdrived restart` command. After the service is running, reissue the `snapdrive storage show` command. This time you should see output similar to the following:

```
# snapdrive storage show -dg toaster1
dg: toaster1 dgtype lvm
hostvol: /dev/mapper/toaster1-lvol1 state: AVAIL
hostvol: /dev/mapper/toaster1-lvol2 state: AVAIL
fs: /dev/mapper/toaster1-lvol1 mount point: /mnt/um1 (nonpersistent)
fstype ext3
fs: /dev/mapper/toaster1-lvol2 mount point: NOT MOUNTED
device filename adapter path size proto state clone lun path backing
snapshot
/dev/sde - P 64m iscsi online No gin:/vol/vol1/Lun1
/dev/sdf - P 64m iscsi online No gin:/vol/vol1/Lun2
```

Discrepancy in the error code message

If you execute the `snapdrive storage delete` command when both the FC and iSCSI services are up or when they are down, SnapDrive for UNIX displays a wrong error message.

Transport protocol	Message displayed (the incorrect message)	Message that should be displayed instead (the correct message)

FC and iSCSI are configured	`0002-181 Command error: Could not select appropriate File System. Please check the value of fstype in config file, and ensure proper file system is configured in the system.`	`0002-143 Admin error: Coexistence of linuxiscsi linuxfcp drivers is not supported.`
		
		`Ensure that only one of the drivers is loaded in the host, and then retry.`

Transport protocol	Message displayed (the incorrect message)	Message that should be displayed instead (the correct message)
FC and iSCSI are not configured	`0001-465 Command error: The following filespecs do not exist and cannot be deleted.`	`0001-877 Admin error: HBA assistant not found. Commands involving LUNs should fail.`

Commands appear blocked

You are unable to run SnapDrive for UNIX commands because the commands seem to be blocked for more than 10 minutes. You might have to wait for the command to complete.

This behavior occurs in rare cases when VxVM/DMP needs time to manage the volume configuration daemon. Triggers for this behavior include the following:

- A storage system that has recovered from a panic
- A storage system target adapter that has transitioned from offline to online

Workaround

Wait for the command to complete. The Veritas configuration daemon needs several minutes to run and discover the current state of the devices.

Clustering message appears during SnapRestore

There is a generic message that applies to any SnapDrive for UNIX host operating system with host cluster monitoring. It appears even if your system does not provide host cluster monitoring or you have it turned off.

The following message appears when you perform the snap restore command # `snapdrive snap restore -vg clustervg -snapname mysnap`

`It appears you are using high-availability host clustering software. To avoid a possible cluster failover, please disable cluster monitoring for the resources you want to restore before restoring them. Do you want to continue?(y/n):` The problem occurs because the `snapdrive snap restore` command brings down the volume group temporarily. If the cluster monitoring process is running at this time, performing a snapdrive snaprestore operation could cause a cluster failover.

Workaround

This should not be a problem on AIX hosts running HACMP because HACMP does not provide default resource monitoring for volume groups and applications.

If you customized an application to provide storage monitoring under HACMP, you must disable the application and monitoring before you execute a `snapdrive snap restore` command

Standard exit status values

Error messages IDs in SnapDrive for UNIX have exit status values associated with them. You can use the exit status value to determine the success or failure of a SnapDrive for UNIX command.

Understanding exit status values of error messages

Each SnapDrive for UNIX error message is associated with an exit status value. The exit status value contains cause of the error, and its type-Warning, Command, Admin, or Fatal.

Each SnapDrive error message ID is linked to an exit status value. Exit status values contain the following information:

- Exit status value—indicates the basic cause of the error condition.
- Type—indicates the type of error. The level of seriousness depends on the message, not the value. The following are the possible values:
  - Warning—SnapDrive for UNIX executed the command but issued a warning about conditions that might require your attention.
  - Command—SnapDrive for UNIX failed to execute the command due to an error in the command line. Check the command line format to ensure they are correct.
  - Admin—SnapDrive for UNIX failed to execute the command due to incompatibilities in the system configuration. Contact your System Administrator to review your configuration parameters.
  - Fatal—SnapDrive for UNIX failed to execute the command due to an unexpected condition. Fatal errors are rare. If a fatal error occurs and you have problems resolving it, contact NetApp technical support for assistance in determining the steps you need to take to recover correctly and fix any error condition.

Using exit status values

Exit status values are used in scripts to determine the success or failure of a SnapDrive for UNIX command.

- A value of zero indicates that the command completed successfully.
- A value other than zero indicates that the command did not complete, and provides information about the cause and severity of the error condition.

Script example

This is an example of a script that uses exit status values.

The following script uses SnapDrive for UNIX exit status values:

```
#!/bin/sh
# This script demonstrates a SnapDrive
# script that uses exit codes.

RET=0;
#The above statement initializes RET and sets it to 0

snapdrive snap create -dg vg22 -snapname vg22_snap1;
# The above statement executes the snapdrive command

RET=$?;
#The above statement captures the return code.
#If the operation worked, print
#success message. If the operation failed, print
#failure message and exit.

if [ $RET -eq 0 ]; then
echo "snapshot created successfully"
else
echo "snapshot creation failed, snapdrive exit code was $RET"
exit 1
fi
exit 0;
```

If RET=0, the command executed successfully and the script outputs the following:

```
# ./tst_script
snap create: snapshot vg22_snap1 contains:
disk group vg22 containing host volumes
lvol1
snap create: created snapshot betty:/vol/vol2:vg22_snap1
snapshot created successfully
```

If RET= a value other than zero, the command did not execute successfully. The following example shows typical output:

```
# ./tst_script
0001-185 Command error: snapshot betty:/vol/vol2:vg22_snap1 already
exists on betty:/vol/vol2.
Please use -f (force) flag to overwrite existing snapshot
snapshot creation failed, snapdrive exit code was 4
```

Exit status values

Each exit status value has an error name, and the type associated with it. View the table to learn about the exit status value, error name, the type, and the description.

The following table contains information about exit status values. The exit status values are numbered sequentially. If SnapDrive for UNIX does not currently implement an error, that exit status value is not included in the table. As a result, there can be some gaps in the numbers.

Exit value	Error name	Type	Description
1	Not supported	Command error	A function was invoked that is not supported in this version of SnapDrive for UNIX.
2	No memory	Fatal	The system has run out of memory. SnapDrive for UNIX cannot proceed until you free enough memory for it to work. Check other applications running to verify that they are not consuming excessive memory.
3	Invalid command	Command error	You issued an invalid command; this is likely to be a syntax error in the text of the command you entered.
4	Already exists	Command error	You requested that something be created that already exists. Usually, this error refers to a Snapshot copy name, which must not exist on the storage system volume where you are taking the Snapshot copy.
5	Create thread failed	Admin error	SnapDrive for UNIX could not create a process thread. Check the other processes running on the system to make sure that enough thread resources are available.

Exit value	Error name	Type	Description
6	Not found	Command error	You included a file, data group, host volume, file system, or other argument on the SnapDrive for UNIX command line that does not exist.
7	Not a mounted file system	Command error	The file system you want to access either is not a valid file system or is not mounted.
9	Volume manager error	Command error	An error was returned when accessing the volume manager. See the specific error message to get details of which error, and why.
10	Invalid name	Command error	You supplied a name on the command line that was not correctly formatted. For example, a storage system volume was not specified as `filer:/vol/vol_name`. This message also occurs when an invalid character is given in either a storage system or a volume manager based name.
11	Device not found	Admin error	SnapDrive for UNIX cannot access a LUN in the disk group that you want to take a Snapshot copy of. Check the status of all LUNs, both on the host and on the storage system. Also check that the storage system volume is online, and that the storage system is up and connected to the host.

Exit value	Error name	Type	Description
12	Busy	Command error	The LUN device, file, directory, disk group, host volume, or other entity is busy.

This is generally a nonfatal error that goes away when you retry the command. It sometimes indicates that a resource or process is hung, causing the object to be busy and unavailable for SnapDrive for UNIX to use.

It could also indicate you are trying to make a Snapshot copy during a period when the I/O traffic is too heavy for the Snapshot copy to be made successfully. |
| 13 | Unable to initialize | Fatal | SnapDrive for UNIX could not initialize third-party material that it needs. This can refer to file systems, volume managers, host cluster software, multipathing software, and so on. |

Exit value	Error name	Type	Description
14	SnapDrive busy	SnapDrive busy	Another user or process is performing an operation on the same hosts or storage systems at the same time that you asked SnapDrive for UNIX to perform an operation. Retry your operation. Occasionally this message means that the other process is hung and you must kill it. ⓘ The Snapshot restore operation can take a long time under some circumstances. Be sure that the process you think is hung is not just waiting for a Snapshot restore operation to be completed.
15	Config file error	Fatal	The snapdrive.conf file has invalid, inadequate, or inconsistent entries. See the specific error message for details. You must correct this file before SnapDrive for UNIX can continue.
17	Bad permissions	Command error	You do not have permission to execute this command. You must be logged in as root to run SnapDrive for UNIX.

Exit value	Error name	Type	Description
18	No filer	Admin error	SnapDrive for UNIX cannot contact the storage system needed for this command. Check the connectivity to the storage system indicated in the error message.
19	Bad filer login	Admin error	SnapDrive for UNIX cannot log in to the storage system using the login information you supplied.
20	Bad license	Admin error	A service SnapDrive for UNIX requires is not licensed to run on this storage system.
22	Cannot freeze fs	Admin error	A Snapshot create operation failed because SnapDrive for UNIX could not freeze the file systems specified in order to make the Snapshot copy. Confirm that the system I/O traffic is light enough to freeze the file system and then retry the command.

Exit value	Error name	Type	Description
27	Inconsistent Snapshot copy	Admin error	The Snapshot restore operation failed because you requested a restore from a Snapshot copy with inconsistent images of the disk group. Inconsistent images can occur in the following cases: • You did not make the Snapshot copy using SnapDrive for UNIX. • The Snapshot create operation was interrupted before it set consistent bits, and thus, could not clean up (as in the case of a catastrophic system failure). • Some type of data problem occurred with the Snapshot copy after it was made.
28	HBA failure	Admin error	SnapDrive for UNIX encountered an error while trying to retrieve information from the HBA.
29	Bad metadata	Admin error	SnapDrive for UNIX encountered an error in the Snapshot copy metadata that it wrote when it created the Snapshot copy.
30	No Snapshot copy metadata	Admin error	SnapDrive for UNIX cannot perform a Snapshot restore operation because the metadata does not contain all requested disk groups.

Exit value	Error name	Type	Description
31	Bad password file	Admin error	The password file has a bad entry. Use the `snapdrive config delete` command to delete the login entry for this storage system. Then reenter the login information using the `snapdrive config set user_name` command.
33	No password file entry	Admin error	The password file has no entry for this storage system. Run the `snapdrive config set username filername` command for every storage system on which you need to run SnapDrive for UNIX. Then try this operation again.
34	Not a NetAPPLUN	Admin error	A SnapDrive for UNIX command encountered a LUN that is not on a NetApp storage system.
35	User aborted	Admin error	The system displayed a prompt asking you to confirm an operation and you indicated that you did not want the operation performed.
36	I/O stream error	Admin error	The system input or system output routines returned an error that SnapDrive for UNIX did not understand. Run snapdrive.dc and send that information to NetApp technical support so that they can help you determine which steps to perform to complete the recovery.

Exit value	Error name	Type	Description
37	File system full	Admin error	An attempt to write a file failed because there was insufficient space on the file system. SnapDrive for UNIX can proceed when you free enough space on the appropriate file system.
38	File error	Admin error	An I/O error occurred when SnapDrive for UNIX was reading or writing a system configuration file or a temporary file.
39	Duplicate diskgroup	Command error	SnapDrive for UNIX got a duplicate minor node number when trying to activate a disk group.
40	File system thaw failed.	Admin error	A snap create command failed due to system activity on the file system. This usually occurs when the SnapDrive for UNIX file system freeze, required for the Snapshot copy, times out before the Snapshot copy is complete.
43	Name already in use	Command error	SnapDrive for UNIX attempted to create a disk group, host volume, file system or LUN but the name was already in use. To correct, select a name that is not in use, and re-enter the SnapDrive for UNIX command.

Exit value	Error name	Type	Description
44	File system manager error	Fatal	SnapDrive for UNIX encountered an unexpected error from the file system when: • attempting to create the file system • making an entry in the file system mount table to automatically mount the file system at boot. The text of the error message displayed with this code describes the error that the file system encountered. Record the message, and send it to NetApp technical support so that they can help you determine which steps to perform to complete the recovery.
45	Mountpoint error	Admin error	The file system mountpoint appeared in the system mount table file. To correct, select a mountpoint that is not in use or listed in the mount table, and re-enter the SnapDrive for UNIX command.
46	LUN not found	Command error	A SnapDrive for UNIX command attempted to access a LUN that did not exist on the storage system. To correct, check that the LUN exists and that the name of the LUN is entered correctly.

Exit value	Error name	Type	Description
47	Initiator group not found	Admin error	A storage system initiator group could not be accessed as expected. As a result, SnapDrive for UNIX cannot complete the current operation. The specific error message describes the problem and the steps you need to perform to resolve it. Fix the problem and then repeat the command.
48	Object offline	Admin error	SnapDrive for UNIX attempted to access an object (such as a volume) but failed because the object was offline.
49	Conflicting entity	Command error	SnapDrive for UNIX attempted to create an igroup, but encountered an igroup of the same name.
50	Cleanup error	Fatal	SnapDrive for UNIX encountered an item that should be removed but is still there.
51	Disk group ID conflict	Command error	A `snapdrive snap connect` command requested a disk group ID that conflicts with an existing disk group. This usually means that a `snapdrive snap connect` command on an originating host is being attempted on a system that does not support it. To fix this problem, attempt the operation from a different host.

Exit value	Error name	Type	Description
52	LUN not mapped to any host	Admin error	A LUN is not mapped to any host. In other words, it does not belong to a storage system initiator group. To be accessible, the LUN must be mapped to the current host outside SnapDrive for UNIX.
53	LUN not mapped to local host	Admin error	A LUN is not mapped to the current host. In other words, it does not belong to a storage system initiator group that includes initiators from the current host. To be accessible, the LUN must be mapped to the current host outside SnapDrive for UNIX.
54	LUN is mapped using foreign igroup	Admin error	A LUN is mapped using a foreign storage system initiator group. In other words, it belongs to a storage system igroup containing only initiators not found on the local host. As a result, SnapDrive for UNIX cannot delete the LUN. To use SnapDrive for UNIX to delete a LUN, the LUN must belong only to local igroups; that is, igroups containing only initiators found on the local host.

Exit value	Error name	Type	Description
55	LUN is mapped using mixed igroup	Admin error	A LUN is mapped using a mixed storage system initiator group. In other words, it belongs to a storage system igroup containing both initiators found on the local host and initiators not found there. As a result, SnapDrive for UNIX cannot disconnect the LUN. To use SnapDrive for UNIX to disconnect a LUN, the LUN must belong only to local igroups or foreign igroups; not mixed igroups. (Local igroups contain only initiators found on the local host; foreign igroups contain initiators not found on the local host.)
56	Snapshot copy restore failed	Admin error	SnapDrive for UNIX attempted a Snapshot restore operation, but it failed without restoring any LUNs in the Snapshot copy. The specific error message describes the problem and the steps you need to perform to resolve it. Fix the problem and then repeat the command.

Exit value	Error name	Type	Description
58	Host reboot needed	Admin error	The host operating system requires a reboot in order to update internal data. SnapDrive for UNIX has prepared the host for this update, but cannot complete the current operation. Reboot the host and then re-enter the SnapDrive for UNIX command line that caused this message to appear. After the reboot, the operation will be able to complete.

Exit value	Error name	Type	Description
59	Host, LUN preparation needed	Admin error	The host operating system requires an update to internal data in order to complete the current operation. This update is required to allow a new LUN to be created.

SnapDrive for UNIX cannot perform the update, because automatic host preparation for provisioning has been disabled because the `snapdrive.conf` variable *enable-implicit-host-preparation* is set to "off". With automatic host preparation disabled, you should use either the snapdrive config prepare luns command to prepare the host to provision LUNs or perform the preparation steps manually.

To avoid this error message, set the *enable-implicit-host-preparation* value to "on" in the `snapdrive.conf` file. |

Exit value	Error name	Type	Description
62	Not empty	Command error	An error occurred because SnapDrive for UNIX could not remove a storage system volume or directory. This may happen when another user or another process creates a file at exactly the same time and in the same directory that SnapDrive tries to delete. To avoid this error, make sure that only one user works with the storage system volume at the time.
63	Timeout expired	Command error	An error occurred because SnapDrive for UNIX could not restore a LUN within the time-out period of 50 minutes. Record the message, and send it to NetApp technical support so that they can help you determine which steps to perform to complete the recovery.
64	Service not running	Admin error	An error occurred because a SnapDrive for UNIX command specified an NFS entity and the storage system was not running the NFS service.
126	Unknown error	Admin error	An unknown error occurred that might be serious. Run the `snapdrive.dc` utility and send its results to NetApp technical support for analysis.

Exit value	Error name	Type	Description
127	Internal error	Fatal	A SnapDrive for UNIX internal error occurred. Run the `snapdrive.dc` and send its results to NetApp technical support for analysis.

Volume-based SnapRestore check fails

Volume-based SnapRestore (Vbsr) check fails, (when NFS tries to export the list that do not have foreign hosts) in the client machine (SLES 11) that has two different IPs for a host name in the `/etc/hosts` file.

To resolve the problem, you must ensure to have only one IP for a host name in the `/etc/hosts` file.

Snapshot create and delete operation fails

The Snapshot create and delete operation fails to remove Snapshot copies on the storage system because the LUNs are busy.

The following error message appears:

```
0001-124 Admin error: Failed to remove snapshot <snap-name> on
filer <filer-name>: LUN clone
```

You might encounter this error and might not be able to directly delete a Snapshot copy if the following are true:

- A disk group spans across multiple storage systems.
- The following SnapDrive commands are executed in a loop for more than 50 iterations (the number of iterations depends on the host operating system):
  - ° `snapdrive storage create`
  - ° `snapdrive snap create`
  - ° `snapdrive storage delete`
  - ° `snapdrive snap restore`
  - ° `snapdrive snap connect`
  - ° `snapdrive storage delete`
  - ° `snapdrive snap delete`

At this point, the Snapshot copy status on the storage system shows `LUNs-Busy`, and this status prolongs for a few hours.

Workaround

If…	Then…
There are cloned LUNs in a Snapshot copy that are not connected to a host.	You can do one of the following to delete the Snapshot copy: • Split the cloned LUNs from the storage system by using the `filer split clone` command. • Delete the cloned LUNs.
There are cloned LUNs in a Snapshot copy that are not connected to a host.	Do the following steps: 1. Disconnect the cloned LUNs from the host by using the `snapdrive snap disconnect` command. 2. Delete the cloned LUNs. 3. Delete the Snapshot copy.

If…	Then…

There are any of the following:
 	
• Cloned LUNs in a Snapshot copy that is also present in other Snapshot copies
• Backup cloned LUNs
	Complete the following steps:
	
	1. Run the following command in the storage system command prompt: `lun snap usage -s <volumename>< snap-name>`
	
	This lists the name of the Snapshot copies that contain the Snapshot copies of the cloned LUNs, as shown in the following example:
	
	<pre>tonic*> lun snap usage vol1
	james_lun (filer view)
	mpiotest2:
	LUN:
	/vol/vol1/.snapshot/mpiotest2/d
	hilip_0
	Backed By:
	/vol/vol1/.snapshot/dhilip_lun/
	james</pre>
	2. Delete the Snapshot copies from the storage system in the same order as they are listed in the lun snap usage command output, as shown in the following example.
	
	`snap delete vol1 mpiotest2`
	
	ⓘ Ensure that the Snapshot copy you are deleting is not used by any other host. If it is being accessed, you cannot delete.

There are no cloned LUNs	Wait until the `LUNs-Busy` status of the Snapshot copy on the storage system disappears.

Unable to create a Snapshot copy

There are few conditions that affect the `snapdrive snap create` command's ability to create a Snapshot copy.

- The `snapdrive snap create` command must be able to perform the following tasks:
  - Query all disk groups for a list of LUNs.
  - Query all LUNs through SCSI commands.
- The LUNs in the disk group must be online and mapped to the disk group before you take the Snapshot

copy. If any of the LUNs are offline or unmapped, the create operation fails.

Make sure that all the LUNs are online and mapped to the host before you attempt to take a Snapshot copy.

- The access permissions do not allow the host to create a Snapshot copy of information on that storage system.

  In addition, because it works with LVM entries, you must be logged on to the host with sufficient permission for it to manipulate the LVM entries.

Unable to restore a Snapshot copy

There are few conditions that affect the `snapdrive snap restore` command's ability to restore a Snapshot copy.

- The `snapdrive snap restore` command must be able to perform the following tasks:
  - Query all disk groups for a list of LUNs.
  - Query all LUNs via SCSI command. The host volumes and file systems do not need to be available and mounted for the `snapdrive snap restore` command to succeed.
- The access permissions must allow the host to create and restore a Snapshot copy of information on that storage system.
- The NFS mounted directory must be exported correctly to the host, so that it can be mounted.

> ⓘ You should always take another Snapshot copy after you add a LUN to or remove a LUN from a disk group.

- If you add a host volume or file systems to a disk group after taking a Snapshot copy and then try to restore the Snapshot copy, you receive an error message. You must include the `force` option (`-f`) on the command-line for the restore operation to succeed in this situation.

> ⓘ Host volumes and file systems that you add after taking a Snapshot copy are no longer accessible when you create and restore the Snapshot copy.

- If you rename a host volume or a file system or change the mountpoint after taking a Snapshot copy and then try to restore it, the restore operation fails. You must include the `force` option (`-f`) on the command-line for the restore operation to succeed in this situation.

> ⓘ Use the `-f` option with great care to make sure you do not accidentally overwrite something that you did not intend to overwrite.

- If you rename a LUN after taking a Snapshot copy and then try to restore that Snapshot copy, the restore operation fails. After you rename a LUN, you should take a new Snapshot copy.

> ⓘ After you start a Snapshot restore operation, do not halt it. Halting this operation might leave the system in an inconsistent state. You might then need to perform a manual recovery.

Unable to restart the daemon when host cannot communicate to the storage system

The daemon cannot be started when the host is not able to communicate to any configured storage system.

During this condition, when you try to restart the daemon, the daemon does not start and the following error message is encountered.

```
Unable to start daemon...check daemon log file for more details
```

Primarily, you need to ensure if the host is communicating to the storage system by executing the ping command to the storage system. If the host is still not able to communicate to the storage system, then try to use the following options:

- Delete the storage system that is not communicating to the host, and then try to restart the daemon.
- In case, you do not want to delete the storage system that is configured to the host, then disable the option *autosupport-enabled* to *off* in the `snapdrive.conf` file to suppress the error message.

(AIX) MPIO cfmode support limited

The MPIO environment of the FC IBM AIX Host Utilities has limited support for cfmodes. If you are running Data ONTAP 7.1.x, only single image or cfmode is supported. With Data ONTAP 7.2.4 or later, both single-image cfmode and partner cfmode are supported.

Unable to start the daemon

The daemon cannot be started when the daemon finds few stale entries in the snapdrive process.

The following error message appears when the daemon is started or restarted.

```
Starting snapdrive daemon: snapdrive daemon port 4094 is in use ...
snapdrive daemon port 4094 is in use ...
snapdrive daemon port 4094 is in use ...
snapdrive daemon port 4094 is in use ...
Unable to start daemon...check daemon log file for more details
```

During the daemon restart/start operation, you can encounter staled snapdrive process entries, which results the daemon to fail.

The workaround for this problem is to execute the following:

- Manually delete the stale entries in the snapdrive process.
- Find the free ports that are available in the host. Then, in the `snapdrive.conf` file, specify the port in the

option `contact-http-port-sdu-daemon`.

Ghost device handles in AIX cause longer return time on iSCSI commands

Querying AIX devices through iSCSI or FC that have ghost device handles (devices handles in a defined or failed state) can cause SCSI commands to wait for the AIX default timeout which is about 30 seconds.

You can see this issue after switching an AIX system from using FC to using iSCSI if FC child device handles are not cleaned up or a FC HBA is left not attached to a switch.

Workaround:

- If the Fibre Channel HBA is not attached to a switch, install a Fibre Channel IOA wrap plug in all Fibre Channel initiators not connected to a Fibre Channel Switch.

- If the Fibre Channel HBA is attached to a switch but has Failed or Defined device handles as child devices, remove the stale ghost device handles with the `rmdev` command.

snapdrived start command fails

In some conditions `snapdrived start` command may fail. There are a few troubleshooting steps to resolve this.

- Check whether daemon port specified in `snapdrive.conf` file is already in use by other application.

- Check whether an earlier instance of daemon is stopped properly.

- Check whether system-wide semaphore limit is reached, in which case daemon start does not work.

- Check whether any of the services like iSCSI, VxVM is not running on the machine.

- If HTTPS is set to `on`, check whether self signed certificate is installed in the specified directory.

SnapDrive commands sometimes result in mounting or unmounting file systems and modify system files

Certain SnapDrive for UNIX commands can cause file systems to be mounted or unmounted. When a command performs an operation that mounts a file system, SnapDrive for UNIX adds the file system's name to the standard system file for your host platform. If an operation unmounts a file system, SnapDrive for UNIX removes the name from the system file. This should not pose a problem; however, it is useful to know when system files are modified.

The name of the system file varies depending on your host platform. The following table lists the host platforms and their system files.

Host	System file
AIX	`etc/filesystems`

Any of the following commands can mount file systems:

- `snapdrive snap restore`

- `snapdrive snap connect`

- `snapdrive storage create`

- `snapdrive host connect`

- `snapdrive storage connect`

The following commands perform operations that can unmount a file system:

- `snapdrive snap restore`

- `snapdrive snap disconnect`

- `snapdrive storage disconnect`

- `snapdrive storage delete`

- `snapdrive host disconnect`

Unable to select a storage stack

You cannot select a storage stack due to inappropriate values specified in the `snapdrive.conf` file.

The following warning message appears.

```
WARNING!!! Unable to find a SAN storage stack. Please verify that the
appropriate transport protocol, volume manager, file system and
multipathing type are installed and configured in the system. If NFS is
being used, this warning message can be ignored.
```

- If you are using an NFS environment, ignore the warning message and continue to use SnapDrive operations on your host system.

- If you are using SAN environment, ensure that the appropriate acceptable values are specified in the `snapdrive.conf` file as provided in the AIX matrix stack. Then, restart the daemon.

Related information

[Stack requirements](#)

snapdrived stop or snapdrived start command hangs

`snapdrived stop` or `snapdrived start` command might hang in some cases.

To resolve this problem, run the `snapdrived status` to check how many commands are in execution and at what time they started. `snapdrived stop` command waits for all commands in execution to complete. If you believe that any command hangs, issue `snapdrived -force stop` or `snapdrived -force restart` command.

> ⓘ The `-force` option kills all running commands and daemon stops. This can have side effects on system state like stale device entries and future daemon starts.

SnapDrive for UNIX command displays could not check access error

SnapDrive for UNIX may display error when it does have proper write access on the storage object.

It displays the following error message:

```
0002-332 Admin error: Could not check SD.Storage.Write access on LUN
storage_array1:/vol/vol1/lun1for user unix-host\root
 on Operations Manager server(s) ops-mngr-server1 reason: Invalid resource
specified.  Unable to find its Id on Operations Manager server ops-mngr-
server1
```

The solution for this problem is to:

1. Verify that the storage resource is refreshed on Operations Manager. If storage resource is not refreshed on Operations Manager, then

   ◦ Manually execute `dfm host discover <storage-system>`.

   ◦ Assign {Global, DFM.Database.Write} capability to `sd-admin`

   In this case, SnapDrive for UNIX automatically refresh Operations Manager and reissue access check.

The default refresh interval used by SnapDrive for UNIX is 15 seconds (*dfm-rbac-retry-sleep-secs*) and the default number of retries used by SnapDrive for UNIX is 12 (*dfm-rbac-retries*). If you still receive the above error message, then increase the value of *dfm-rbac-retries* configuration variable to 14, 16, 18… and so on to match your environment. The refresh interval required by Operations Manager depends on the number of LUNs and volumes you have in your storage system.

Mounting a FlexVol volume fails in NFS environment

When you mount a FlexVol volume, an entry is added in the `/etc/exports` file. In NFS environment, SnapDrive for UNIX fails, and an error message is generated.

The error message is

```
0001-034 Command error: mount failed: nfs mount:
dub12137:/vol/vn_dub12137_testprisredo_0: Permission denied.
```

SnapDrive for UNIX might encounter the error message due to the option `nfs.export.auto-update` set to `off`. The option `nfs.export.auto-update` controls whether the automatic updates are performed on the `/etc/exports` file.

> ⓘ The AutoSupport does not send the message to the storage system when the FlexVol volume fails in NFS environment.

Steps

1. Set the `nfs.export.auto-update` option `on` so that the `/etc/exports` file is updated automatically.

   SnapDrive for UNIX can now mount the FlexVol volume.

In an HA pair active/active configuration, ensure you set the NFS exports option on for both the storage systems.

SnapDrive for UNIX incorrectly interprets the dollar sign

SnapDrive for UNIX incorrectly interprets the dollar sign ($) and all special characters differently, if the special characters are specified as part of a configuration value.

All specified configuration values should be numeric. If you specify $ or any other special character as part of the configuration value, SnapDrive for UNIX accepts the value but interprets the numeric value mentioned after the special character in a different manner.

Example

The following is an example of how $ is interpreted:

```
#a=$123
#echo $a
23

[root@vm-linux-51-233 ~]# /opt/NetApp/snapdrive/bin/config_set volume-
clone-retry-sleep=$129
[root@vm-linux-51-233 ~]# /opt/NetApp/snapdrive/bin/config_show |grep
volume-clone-retry-sleep
volume-clone-retry-sleep:Number of seconds between retries during flex-
clone create:'3':'29':1:0:'^[0-9]+$':filer
```

In this example, SnapDrive for UNIX interprets the configuration value ($123) as 23.

Workaround

Specify a backslash (\) before $. Modify the previous example as follows:

```
#a=\$123
#echo $a
23


[root@vm-linux-51-233 ~]# /opt/NetApp/snapdrive/bin/config_set volume-
clone-retry-sleep=$129
[root@vm-linux-51-233 ~]# /opt/NetApp/snapdrive/bin/config_show |grep
volume-clone-retry-sleep
volume-clone-retry-sleep:Number of seconds between retries during flex-
clone create:'3':'29':1:0:'^[0-9]+$':filer
```

SnapDrive for UNIX storage create command fails while discovering some mapped devices

When you run the `storage create` command in SnapDrive for UNIX, during the discovery stage, the discovery of some of the mapped devices is rejected and the command fails.

Workaround

For all devices to be accepted, edit the filter section of the `/etc/lvm/lvm.conf` file:

```
filter = [ "a/.*/" ]
```

Related information

Guidelines for the storage create operation

SnapDrive for UNIX commands fail with customized LD_LIBRARY_PATH

SnapDrive for UNIX commands fail if there is a customized `LD_LIBRARY_PATH` and also if `snapcreate-check-nonpersistent-nfs` is set to off .

Workaround

Set the `env` variable in a wrapper script to ensure that the variable is visible only to the SnapDrive binaries.

SnapDrive operations fail in multiple subnet configuration

SnapDrive operations fail in multiple subnet configurations, if the Internet Control Message Protocol (ICMP) access is disabled or if the ICMP packets are dropped between the host and storage system network.

Workaround

Ensure that *enable-ping-to-check-filer-reachability* is set to off.

SnapDrive for UNIX commands fail when environment variables are set using a command shell

You are unable to execute SnapDrive for UNIX commands, both because the environment variables set through a command shell are not accepted in SnapDrive for UNIX, and when **$LD_LIBRARY_PATH** and **snapcreate-check-nonpersistent-nfs** parameters are set to off.

Workaround

Use a wrapper script for the SnapDrive for UNIX binary and set the environment variables as visible for the binary.

Cannot install SnapDrive for UNIX patches on AIX by default

You cannot install SnapDrive for UNIX patch releases on AIX by default using the System Management Interface Tool (SMIT).

Workaround

Ensure that you select the overwrite option in SMIT when you install the SnapDrive for UNIX patch release for AIX.

SnapDrive for UNIX does not automatically delete stale devices in UNIX

Stale devices can be left behind in the Fibre Channel over Ethernet (FCoE) environment when SnapDrive for UNIX operations fail due to configuration issues. These stale devices are not automatically deleted, so you need to know the workaround.

Workaround

Run either the native rescan script provided by the vendor to remove all old entries or the rescan script using the rescan-scsibus.sh --r command that is included with sg3 packages.