Storage operations in SnapDrive for UNIX

Snapdrive for Unix

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Storage operations in SnapDrive for UNIX

SnapDrive for UNIX provides end-to-end storage management. You can provision storage from a host to a storage system and manage that storage with or without using the host Logical Volume Manager (LVM).

SnapDrive for UNIX enables you to perform the following storage operations:

- Create the storage by creating LUNs, file systems, logical volumes, and disk groups.
- Display information about the storage.
- Connect to the storage.
- Resize the storage.
- Disconnect from the storage.
- Delete the storage.

When you create a storage by using the `snapdrive storage create` command, SnapDrive for UNIX automatically performs all the tasks needed to set up LUNs, including preparing the host, performing discovery mapping, and connecting to each LUN you create. You can use the `snapdrive storage show` command to display information about theNetApp LUNs, disk groups, host volumes, file systems, or NFS directory trees that you create.

You can use the `snapdrive storage connect` command to map the storage to a new location. This command enables you to access the existing storage from a different host than the one used to create it. The `snapdrive storage connect` command enables you to make the existing LUNs, file systems, disk groups, and logical volumes accessible on a new host. This might be useful if you want to back up a storage entity from the new host to another host.

Using the `snapdrive storage resize` command, you can increase the size of your storage in the following ways:

- Specifying the target size that you want the host entity to reach
- Entering a set number of bytes by which you want to increase the storage

If you no longer want your storage mapped to its current location, you can use the `snapdrive storage disconnect` command. This command removes the mappings from one or more host locations to the LUNs creating the storage for that location.

If you want to delete the storage, you can use the `snapdrive storage delete` command. SnapDrive for UNIX deletes all the host-side entities you specify as well as all their underlying entities and the LUNs associated with them.

Storage operations across multiple storage system volumes

SnapDrive for UNIX lets you perform many of the storage operations across multiple storage system volumes as long as the operations do not manipulate the Logical Volume Manager (LVM). This enables you to work with lists of LUNs that exist across multiple storage system volumes.

Considerations for storage operations

You must keep in mind a few considerations related to the various storage commands.

- Support is limited for volume groups spanning multiple storage system volumes or multiple storage systems. You cannot use the `snapdrive storage create` command to create volume groups that span across storage systems.

  In this case, SnapDrive for UNIX supports the following key commands:

  - `snapdrive snap create`
  - `snapdrive snap restore`
  - `snapdrive snap connect`
  - `snapdrive snap disconnect`
- The `snapdrive storage resize` command does not work with LUNs mapped directly to the host, or with the files systems that they contain.
- SnapDrive for UNIX does not provide any options to control the formatting of host volumes that it creates. SnapDrive for UNIX creates only concatenated host volumes. It does operate correctly on host volumes of other formats (such as striped volumes) that were created using other application.
- You cannot restore a portion of a disk group. SnapDrive for UNIX backs up and restores whole disk groups only.

The snapdrive operations performed from a non Linux operating system to a Linux operating system, using even the `-mntopts` command, for NFS, fail in all versions earlier than Red Hat Enterprise Linux 6.

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