Multiple subnet configuration

Snapdrive for Unix

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Multiple subnet configuration

Multiple subnets are useful in an environment where you want to separate management traffic and data traffic. This separation creates a more secure environment for managing network traffic. SnapDrive 4.1.1 for UNIX and later versions running on servers in such environments supports all the SnapDrive operations available in stand-alone environments and host and HA pair environments.

Data related to the management of storage systems is transmitted through the management interface. DataFabric Manager, Protection Manager, and SnapDrive for UNIX can be part of the management interface. The data interface is used for data traffic between storage systems.

To configure multiple subnets in your environment, you should use the `mgmtpath` option with the `snapdrive config set` command.

SnapDrive for UNIX does not support operations in a SAN environment where the host name of the storage system is different from the public name, but both names resolve to the same IP address. To work around this situation, you can do one of the following:

- Assign a different IP address for the system name.
- Configure the system so that it does not reply when you try to connect to it.

Configuring management and data interfaces for a storage system

You can configure multiple data interfaces for a single management interface in an NFS environment, so that you can separate management traffic from data traffic on your storage system.

Steps

1. Set the configuration for the new management interface:

   `snapdrive config set root`

   ```
   # snapdrive config set root f3050-197-91
   Password for root:
   Retype password:
   ```

2. Configure the data interface for the new management interface:

   `snapdrive config set`

   ```
   # snapdrive config set -mgmtpath f3050-197-91 f3050-220-91#
   ```

   In the preceding command, `f3050-197-191` is the management interface and `f3050-220-91` is the data interface.

Viewing all the data interfaces for a management interface

You can view all the data interfaces for a management interface by using the `snapdrive config list` command in an NFS environment.

1. At the CLI, enter the following command:

   `snapdrive config list -mgmtpath`

```
#snapdrive config list -mgmtpath
system name        management interface   datapath interface
-------------------------------------------------------------------------
-------
f3050-197-91        10.72.197.91           10.72.220.91|10.72.168.91
```

Deleting a data interface entry for a management interface

You can delete a data interface entry that is associated with a specific management interface in an NFS environment by using the `snapdrive config delete –mgmtpath` command.

1. At the CLI, enter the following command:

   `snapdrive config delete -mgmtpath *data_interface*`

```
#snapdrive config delete –mgmtpath f3050-197-91
Deleted configuration for appliance: f3050-197-91
```

LUN names in SAN environment

In all the SAN operations, the format of LUN names should always be of the host name, irrespective of whether it resolves to an IP address. In a pure SAN environment, there is no concept of data path. The management interface mapping must be the same as the data path interface.

config list output in a SAN multiple subnet environment

```
#snapdrive config set -mgmtpath f3050-197-91 f3050-197-91

#snapdrive config list -mgmtpath
system name        management interface   datapath interface
-------------------------------------------------------------
bart               10.72.197.91           10.72.197.91
```

Pure NFS environment

If you configure a system for multiple subnets and one or more NFS volumes are mounted through the management interface, then you should always configure the first data interface as the management interface.

In the following example, the management interface is `10.72.221.19`, and the data interface is `10.72.220.45`.

```
# snapdrive config list
username    appliance name   appliance type
----------------------------------------
root        10.72.221.19     StorageSystem

# snapdrive config list -mgmtpath
system name    management interface   datapath interface
-------------------------------------------------------
f2040-221-19   10.72.221.19           10.72.220.45
```

Mixed SAN and NFS environments

In mixed SAN and NFS environments, the management and data interface must be mapped so that the first data interface is the same as the management interface.

In the following example, the management interface is `10.72.197.91`, and the data interface is `a10.72.220.91`.

```
#snapdrive config set -mgmtpath f3050-197-91 f3050-197-91 f3050-197-91
f3050-220-91

#snapdrive config list -mgmtpath
 system name        management interface   datapath interface
 ------------------------------------------------------------------------
 bart               10.72.197.91           10.72.197.91|10.72.220.91
```

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