COHESITY

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How To Guide: Installing Imanis Data on Cohesity NFS Storage

Table of Contents

1 Installing Imanis Data Software on Cohesity NFS Storage

If you are installing Imanis Data using NFS exported Cohesity Storage instead of Direct Attached Storage (DAS), then there are a few additional steps that must be performed. These steps are in addition to installation instructions mentioned in the Imanis Data Installation Guide.

The procedure may differ if you are installing Imanis Data on a Primary site or recovering Imanis Data cluster on the Disaster Recovery (DR) site. This guide explains both the scenarios in detail.

1.1 Prerequisites for running the script

Prior to running the NFS Setup script, ensure the following:

- The script requires NFS client packages to be installed on all the Imanis nodes. User must refer to the OS documentation for information on how to install NFS client packages.

  For example, for Centos7.x, run the following command:

```
yum install nfs-utils
```

- Firewall must be disabled. This action will unblock the ports used by NFS if they are blocked
- Hostname/IP address of the Cohesity Platform
- Login/Password credentials to connect to Cohesity for REST API calls.
- Name of the view to be used for installing Imanis Data.
- The QoS settings for view storage on Cohesity must be configured as **testdev-low**.

Note: This view must be created and NFS exported so that it can be mounted from all nodes of Imanis Data cluster.

1.2 Installing Imanis Data on a Primary site

This step is mandatory if you are planning to install Imanis Data on a Primary site.

1. Unpack the Imanis Data installer self-extractor and find script by the following name:

```
setup_nfs_storage.sh
```

2. Execute the script as below on the node where the Installer was extracted.

```
$ ./setup_nfs_storage.sh --primary
```

The script will prompt you for the following information:

- List of nodes on which you wish to install Imanis Data software
- SSH password or private key for these nodes
- Hostname/IP to login Cohesity cluster
- Username to connect to Cohesity cluster
- Password to connect to Cohesity cluster
- View name to be used for Imanis Data cluster

> **Note**: Special characters including space are not supported in **View name** and **View Path**.

3. The script prompts the user, creates mount points, and mounts the view on all nodes.

For example, if you have three Virtual IPs as vip1, vip2 and vip3, and a 3-node Imanis Data cluster with nodes host1, host2, host3, then the NFS mount is performed as follows:

```
On node im1:
    vip1: /<view_path>/vip1/host1/disk1  /mnt/imanisdata/disk1
    vip2: /<view_path>/vip2/host1/disk2  /mnt/imanisdata/disk2
    vip3: /<view_path>/vip3/host1/disk3  /mnt/imanisdata/disk3

On node im2:
    vip1: /<view_path>/vip1/host2/disk1  /mnt/imanisdata/disk1
    vip2: /<view_path>/vip2/host2/disk2  /mnt/imanisdata/disk2
    vip3: /<view_path>/vip3/host2/disk3  /mnt/imanisdata/disk3

On node im3:
    vip1: /<view_path>/vip1/host3/disk1  /mnt/imanisdata/disk1
    vip2: /<view_path>/vip2/host3/disk2  /mnt/imanisdata/disk2
    vip3: /<view_path>/vip3/host3/disk3  /mnt/imanisdata/disk3
```

4. To verify, if the NFS mounts have been done successfully, run mount command on each node and verify before proceeding with installation.

5. Apart from performing NFS mounts, the script also generates pre-filled tl_installer.conf and .tl_installer_advanced.conf files which are needed for installing Imanis Data.

6. The user may edit these files to add additional parameters as needed.

Note: Ensure you have a valid Imanis Data Licence and path is given in the `tl_installer.conf` file.

7. Run the Imanis Data prechecks script to prepare the nodes for the Imanis Data installation.

8. Once the pre-checks are complete, the next step is to run the actual installer to install Imanis Data on the given nodes.

Note: Refer to the Imanis Data Installation Guide for steps to run the precheck and installation.

2 Recovering Imanis Data cluster on DR site

This section discusses the process of recovering Imanis Data cluster on a Disaster Recovery (DR) site.

2.1 Pre-requisites

On the DR setup, following are the pre-requisites

- Imanis Data is installed on the same number of nodes as that of the primary cluster.
- The number of VIPs used for mounting NFS should be same as that of primary cluster.
- A protection job Is setup on Cohesity platform to replicate the primary view.

Note: It is recommended that the protection job Is setup on Cohesity platform to replicate primary view with a frequency of replication as 5 minutes.

- A clone of the last successful replicated view must be created manually on the Cohesity storage platform and exported for NFS mounts by the Imanis Data nodes.
- The cloned view is configured with Quality of Service (QoS) as test-dev-low.

When recovering Imanis Data on a DR site, there are three distinct steps that must be followed: pre-installation, installation, and post-installation steps.

2.2 Pre-installation

The pre-installation step is performed before Installing Imanis Data software on the DR site.

This step ensures that Imanis Data is installed with the same set of configuration parameters as that of a primary setup.

This action is performed by executing the following script with root/sudo user privileges:

```
$ ./setup_nfs_storage.sh --dr preinstall
```

This script will read the configuration parameters from the primary site setup (present in the cloned view) and generate a pair of configuration files `tl_installer.conf` and `.tl_installer_advanced.conf` ready to be used for the recovery on DR site.

2.3 Installation

This section describes installing Imanis Data software using configuration files generated in the preinstall step.

The install procedure is same as regular Imanis Data software installation. Precheck is run first to ensure that all pre-requisites are fixed on Imanis Data nodes. Then, you proceed with the actual installation.

Note: Refer to the Imanis Data Installation guide for more details.

At the end of this procedure, Imanis Data is installed with a set of temporary directories. The actual data from the primary site is still not visible.

The installation should be performed with --skip-setup option to the `install_talena.sh`. script.

```
# ./install_talena.sh --skip-setup
```

2.4 Post-installation

The post installation step is performed after installing Imanis Data. In this case, you must again run the `setup_nfs_storage.sh` script with the following options with root user privileges

```
$ ./setup_nfs_storage.sh --dr postinstall
```

This step will mount NFS directories so that the data from the primary site is available. It will perform some additional steps and ensure that the recovery cluster is up and ready with data from the primary cluster.

3 Additional Information

- In Imanis Data Release 4.3.0 only SSH-SUDO mode of installation is supported for installing Imanis Data with Cohesity view

- When Cohesity NFS storage is used as storage for Imanis Data platform, the following functionalities are not required as all the storage needed for Imanis Data (both data and meta data) comes from the same view exported from Cohesity NFS server.

    - Adding additional disks for storage
    - Relocating directories like LOG_DIR to another path

  However, if you need more storage to the Imanis Data cluster, resize your view on Cohesity storage platform.

- If the storage added in view is significantly more than the existing capacity, then certain parameters on the Imanis Data nodes may need change such as the heap size of the namenode and region server processes. Contact the Technical Support Team for this requirement.

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Cohesity makes your data work for you by consolidating secondary storage silos onto a hyperconverged, web-scale data platform that spans both private and public clouds. Enterprise customers begin by radically streamlining their backup and data protection, then converge file and object services, test/dev instances, and analytic functions to provide a global data store. Cohesity counts many Global 1000 companies and federal agencies among its rapidly growing customer base and was named to Forbes'

"Next Billion-Dollar Startups 2017," LinkedIn's "Startups: The 50 Industry Disruptors You Need to Know Now," and CRN's "2017 Emerging Vendors in Storage" lists.

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