

Running Subversion on Smart Storage



Subversion is an open source version control system from Apache (www.apache.org). The appeal for Subversion is its reliability as a safe data control system. It is very easy to use and integrates with a wide variety of development models and use cases.

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Subversion

You can find more information regarding Subversion (SVN) at subversion.apache.org

Requirements

There is not a web administration GUI for Subversion on Cisco Smart Storage. The repository locations, users, and passwords all need to be configured using the command line.

This process requires basic Linux command line knowledge. Beware that failure to properly follow directions could lead to corrupt systems.

Support is only provided via the Cisco Small Business Support Community.

Install Optware

- Download the Optware PKG from cisco.com. You can find a complete list of available add-on applications at www.cisco.com/go/storage-apps
- Install the Optware PKG using the admin GUI of the Smart Storage
- Release Notes for the Optware PKG, including installation directions, can be found at http://www.cisco.com/en/US/products/ps10817/prod_release_notes_list.html

Install Subversion via Command Line

- SSH into Smart Storage – Details vary depending on Client/OS.
- From the command line, type “ipkg update” – Updates the list of available packages to download.
- From the command line, type “ipkg install svn” – Installs the latest version of Subversion.
- Update the environment path information by typing either
“export PATH=\$PATH:/opt/bin:/opt/sbin”

Or:

By adding the “/opt/bin” and “/opt/sbin” paths to the following files:

`/root/.bashrc`

`/root/.bash_profile`

Create Repository via Command Line

Before you begin this step, remember to put these files in a private folder because it will contain configuration files. Your harddisk(s) are mounted to /share/HD?_DATA, where ? is a letter from A->Z. For this example, we will use HDA_DATA.

Also, note that /share belongs to /dev/ram. If you create a directory in /share/svn, your repository will be located in the RAM disk and will not retain information after a reboot. Memory size is also limited in the RAM disk.

- For a single repository, enter the following commands:
 - `mkdir /share/HDA_DATA/svn`

- `svnadmin create /share/HDA_DATA/svn`
- For multi-project repositories, enter the following commands:
 - `mkdir /share/HDA_DATA/svn`
 - `mkdir /share/HDA_DATA/svn/repos1`
 - `mkdir /share/HDA_DATA/svn/repos2`
 - `svnadmin create /share/HDA_DATA/svn/repos1`
 - `svnadmin create /share/HDA_DATA/svn/repos2`
- If you need to delete a repository, delete the folder containing the repository using the following command:
 - `rm -r /share/HDA_DATA/svn/repos1`

Configure Users and Access via Command Line

- You will need to edit two files to configure users and access to repositories. The two files are:
 - `/share/HDA_DATA/svn/conf/passwd`
 - `/share/HDA_DATA/svn/conf/svnserve.conf`
- Make sure you have write access somewhere in the repository. The following changes represent a simple configuration. Additional configuration can be done with help from the Subversion documentation.
- In the `passwd` file, uncomment the following. This is the username and password for each user. Adjust the user ID and passwords as needed. The Subversion application access control is unique from the Smart Storage administration application.

[users]

harry = harryssecret

sally = sallyssecret

- In the `svnserve.conf` file, uncomment the following

[general]

anon-access = read

auth-access = write

password-db = passwd

Start Subversion Daemon via Command Line

- We will use port 4000 in this example, but you can select any port not being used.
- For a single repository, use the following command:
 - `svnserve -d --listen-port=4000 -r /share/HDA_DATA/svn`
- For a multi-repository solution, use the following command. This will share all available repositories.
 - `svnserve -d --listen-port=4000`

Autostart Subversion after Reboot

There are multiple ways to automatically restart Subversion after a reboot. This is just one method.

- Add the following line to the `autorun.sh` file. The “sleep 10” command ensures that the `svnserve` does not initialize too early.
 - `(sleep 10; svnserve ...) &`

Client Setup

You can now use any Subversion SVN client to access the Subversion Server running on Cisco Smart Storage. There are clients available for Apple Mac, Microsoft Windows, Linux, and mobile clients for your Apple iPhone. A typical connection from the client would be:

- `svn://yourhostIP:4000` (for single repository)
- `svn://yourhostIP:4000/share/HDA_DATA/svn/repos1` (for multi-repository)

For More Information

For more information about Cisco Smart Storage Applications, visit the Cisco Small Business Community forum <https://www.myciscocommunity.com/community/smallbizsupport/networkstorage>




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