

# TECHNICAL NOTE

## CONFIGURING iSCSI

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You can use your iSCSI storage network in your STRM or STRM LM deployment. This document provides information on configuring and using iSCSI devices with your deployment. Unless otherwise noted, all references to STRM refer to both STRM and STRM LM.



**Note:** In some cases, your existing STRM Administration interface is used to access the storage network, however the information provided in this document uses an additional interface on ETH1.



**CAUTION:** The procedures in this document assumes an advanced knowledge of a Linux operating system. For assistance, please contact Juniper Networks Customer Support.



**Note:** STRM supports the LeftHand storage solution. Before you prepare STRM, the LeftHand storage solution should be connected and configured. For more information about LeftHand, refer to your LeftHand documentation.

To configure iSCSI, you must:

- Step 1** Prepare STRM to connect to the iSCSI network. See [Preparing STRM to Connect to iSCSI Network](#).
- Step 2** Assign and configure the iSCSI volumes. See [Assigning and Configuring iSCSI Volumes](#).
- Step 3** Migrate the /store directory to the iSCSI storage solution. See [Migrating /store to the iSCSI Storage Solution](#).
- Step 4** Configure the system to auto-mount the iSCSI volume. See [Configuring the System to Auto-mount the iSCSI Volume](#).
- Step 5** Verify the iSCSI mount. See [Verifying the iSCSI Mount](#).

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## Preparing STRM to Connect to iSCSI Network

To prepare STRM to connect to an iSCSI network:

- Step 1** From the STRM Administration Console, configure a secondary network interface with a private IP address to connect to the iSCSI SAN.



**Note:** Network interface address information, from your SAN network manager, is required. For more information on configuring a network interface, see the STRM Administration Guide.

- Step 2** Log into STRM as root.

- Step 3** Open the following file:

```
/etc/iscsi/initiatorname.iscsi
```

- Step 4** Add the iSCSI qualified name for your host to the initiatorname.iscsi file in the following format:

```
iqn.<yyyy-mm>.{reversed domain name}:<hostname>.<directoryname>
```

For example:

```
InitiatorName=iqn.2008-11.com.q11labs:p113
```

- Step 5** Save and close the file.

- Step 6** Enter the following command to start/restart the iSCSI service to open a session to the server:

```
service iscsi restart
```

You are now ready to assign and configure the iSCSI volumes. See [Assigning and Configuring iSCSI Volumes](#).

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## Assigning and Configuring iSCSI Volumes

To assign and configure iSCSI volumes:

- Step 1** Detect volumes on the iSCSI server:

```
iscsiadm -m discovery --type sendtargets --portal <IP address>:<port>
```

Where:

<IP address> is the IP address of the iSCSI server.

<port> is the port number of the iSCSI server. This is an optional parameter.

A list of iSCSI volumes available to your host appears. The output should look like this:

```
172.16.151.142:3260,1 iqn.2008-10.lab.q11labs:iscsiVol
```

**Step 2** Make sure the login for your iSCSI server is functional and that your STRM system detects the new disks:

```
iscsiadm -l -m node -T <target iqn name>
dmesg | tail -20 | grep 'Attached'
```

The output from this command should resemble:

```
sLogging in to [iface: default, target:
iqn.2008-10.lab.qllabs:iscsiVol, portal: 172.16.151.142,3260]
Login to [iface: default, target:
iqn.2008-10.lab.qllabs:iscsiVol, portal: 172.16.151.142,3260]:
successful
```

**Step 3** Enter the following command to reformat the volume, if it has not previously been used.

```
mkfs.ext3 /dev/sdc
```



**CAUTION:** If the volume has been used before, do not reformat it if you wish to retain the data already on the volume.



**Note:** If the new volume is larger than 2TB, format the entire volume. If the new volume is less than 2TB, you may create one or more partitions on the volume using the `fdisk` utility, then mount them separately.

You are now ready to migrate the `/store` directory to the iSCSI storage solution. See [Migrating /store to the iSCSI Storage Solution](#).

## Migrating /store to the iSCSI Storage Solution

To migrate `/store` to the iSCSI storage solution:

**Step 1** Stop the services in the following order:

```
service systemStabMon stop
service hostcontext stop
service tomcat stop
service imq stop
service postgresql stop
```

**Step 2** Unmount `/store/tmp`:

```
umount /store/tmp
```

**Step 3** Unmount your existing `/store` directory:

```
umount /store
```

**Step 4** Create the `/store_old` directory:

```
mkdir /store_old
```

**Step 5** Open the following file:

```
/etc/fstab
```

**Step 6** Duplicate the existing /store mount lines:

```
LABEL=/store /store ext3 noatime 1 2
```

```
LABEL=/store /store ext3 noatime 1 2
```

**Step 7** Modify the duplicated lines:

```
LABEL=/store /store_old ext3 noatime 1 2
```

```
/dev/sdc /store ext3 defaults,noatime,noauto 0 0
```

**Step 8** Save and close the file.

**Step 9** Mount the new iSCSI /store.

```
mount /store
```

**Step 10** Mount the old /store:

```
mount /store_old
```

**Step 11** Copy the data from the existing /store to the /san directory.

```
cp -af /store_old/* /store
```

**Step 12** Re-mount /store/tmp.

```
mount /store/tmp
```

**Step 13** Unmount /store\_old:

```
umount /store-old
```

**Step 14** Restart the services in the following order:

```
service postgresql restart
```

```
service imq restart
```

```
service tomcat restart
```

```
service hostcontext restart
```

```
service systemStabMon restart
```



**Note:** For most situations, you only need to mount a single /store on you iSCSI storage solution. If, however, you need a different configuration for your iSCSI mount points, contact Customer Support.

You are now ready to configure the system to automatically mount the iSCSI volume. See [Configuring the System to Auto-mount the iSCSI Volume](#).

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## Configuring the System to Auto-mount the iSCSI Volume

To configure the system to auto-mount the iSCSI volume:

**Step 1** Open the following directory:

```
cd /etc/rc3.d
```

**Step 2** Add the iSCSI script so to be part of the startup.

For example:

```
chkconfig --add iscsi
chkconfig --level 345 iscsi on
```

**Step 3** Create a link to /opt/qradar/init/iscsi-mount script from the /etc/init.d directory:

```
ln -s /opt/qradar/init/iscsi-mount/etc/init.d/iscsi-mount
```

**Step 4** Add iscsi-mount script to be part of the startup:

For example:

```
chkconfig --add iscsi-mount
chkconfig --level 345 iscsi-mount on
```

You are now ready to verify the iSCSI mount. See [Verifying the iSCSI Mount](#).

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## Verifying the iSCSI Mount

To verify that the iSCSI mounts properly:

**Step 1** Enter the following command:

```
df -h
```

**Step 2** Review the screen output and look for the newly added volume.

For example:

```
root@csd6 ~# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda2       12G   5.4G  6.5G  46% /
/dev/sda1        99M   50M   44M  54% /boot
/dev/sda3       11G  406M   9.7G   4% /var/log
/dev/md0       136G   6.6G  130G   5% /store
/dev/sda5       10G   33M   10G   1% /store/tmp
/dev/sdg       910G  558M  863G   1% /store/iscsi
root@csd6 ~#
```

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