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Title: Sun StorEdge[TM] SAN 4.x software: Installation Guidelines

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Solution Type **Technical Instruction**

Solution 208569 :   **Sun StorEdge[TM] SAN 4.x software: Installation Guidelines**

Related Categories
Home>Product>Storage>Storage Management Software

Description

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This document details the installation sequence of Sun StorEdge[TM] SAN
4.X software, while configuring Hitachi through QLOGICS-SUN branded HBAs
(eg X6767A).
```

Use this document as a guideline to install any new storage products, for example: Sun StorEdge[TM] 3510 FC Array, Sun StorEdge[TM] 6320 and Sun StorEdge[TM] 9970/9980 System products.

Steps to Follow
```
Points to remember :
```

1.   If this is direct attach, make sure the Hitachi ports are configured appropriately.
2.   If this is going through a switch, make sure ports are configured as "fabric point-to-point".
3.   Make sure you can see the WWNN of the Qlogics card when you do a name server on the switch
4.   Make sure you can see the WWNN of Hitachi when you do a name server on the switch.
5.   After you see everything, then start creating ZONES.

Install Order	Solaris[TM] 8 Operating System(OS)	Solaris 9 OS	Description
1	SUNWsan	SUNWsan	Sun StorEdge Network Foundation
2	111847-XX	111847-XX	SAN Foundation Kit patch

3	111412-XX	113039-XX	Sun Storage Traffic Manager
4	111095-XX	113040-XX	fcp/fp/fctl driver patches
5	111096-05	113041-XX	fcip driver patch
6	111097-XX	113042-XX	qlc driver patch
7	111413-XX	113043-XX	luxadm patch
8	SUNWcfpl	SUNWcfpl	cfgadm library
	SUNWcfplx	SUNWcfplx	cfgadm library (64 bit)
9	111846-XX	113044-XX	cfgadm fp plug-in library patch
10	110614-XX		Should be included in the O.S ses driver patch
11	SUNWcfclr	SUNWcfclr	Common FCA Library
12	SUNWcfcl	SUNWcfcl	API library
13	SUNWcfclx	SUNWcfclx	API Library (64 bit)
14	SUNWfchba	SUNWfchba	HBA libraries
15	SUNWfchbr	SUNWfchbr	HBA libraries
16	SUNWfchbx	SUNWfchbx	HBA libraries (64 bit)
17	SUNWfcsm	SUNWfcsm	FCSM driver
18	SUNWfcsmx	SUNWfcsmx	FCSM driver (64 bit)
19	113766-XX		Common library patch
20	113767-XX		SNIA patch

Note - Make sure you download these packages from http://www.sun.com/download, and browse the 'Downloads A-Z' looking for StorEdge SAN x.x

The above tar file contains packages 11 thru 18. Make sure you follow the install order while installing these packages.

After all the packages and patches are installed, do a reconfiguration reboot. You should see messages about QLOGICS card, that means your driver has recognized the card. After that issue the following commands :

```
a) # cfgadm -al

   Ap_Id      Type                Receptacle Occupant   Condition
   c0    fc-fabric               connected unconfigured unknown
   c0::50000e830000600  disk  connected unconfigured unknown
   c1    fc-fabric               connected unconfigured unknown
   c1::50000e830000601  disk  connected unconfigured unknown
```

Pay attention to the fields

Ap_Id - shows the controller number to which the device is attached. In this case it is c0 for cluster 0 and the controller c1 is for cluster 1.

Type - If this is attached to a switch, it should say "fc-fabric" This is how to confirm whether the HBA configuration is okay. The World Wide Node Name(WWNN) above is the Hitachi's WWNN.

To configure the above shown devices issue the following command

```
b) cfgadm -c configure <controller name>

eg.  cfgadm -c configure c0   Brings all the c0 devices online.
     cfgadm -c configure c1   Brings all the c1 devices online.
```

Note - On the Hitachis there is only one WWWN per port connection. You can either bring all the devices under c0 online or offline. You cannot manipulate devices on LUN basis.

```
c) cfgadm -al

   Ap_Id      Type                Receptacle Occupant   Condition
   c0    fc-fabric               connected configured unknown
   c0::50000e830000600  disk  connected configured unknown
   c1    fc-fabric               connected configured unknown
   c1::50000e830000601  disk  connected configured unknown
```

   - This should show that devices are configured. Now run the format command; you should see all the assigned LUNS.

To unconfigure and remove fabric devices :

1.   Be sure to document which devices need to be deconfigured.
2.   Log on to " **storage navigator** " to remove the devices.
3.   Log on to the server, cfgadm -c unconfigure on the controller (**make sure you have multipath software enabled**) and again do a cfgadm -c configure on the controller, this will get rid of the LUN but you will still see the device under /dev/(r)dsk. To remove this you have to do a devfsadm -Cv.
4.   Repeat the same process on the other path.
5.   Do a format, you should not see the removed LUNs.

To add a fabric device :

1.   Log on to " **storage navigator** ", assign LUNS to the ports.
2.   Log on to the server, issue cfgadm -al, get the controller number
3.   cfgadm -c configure <controller name>
4.   format - should see the new devices.

Another useful command

```
cfgadm -al -o show_FCP_dev <controller name>
for Solaris > 9 the option  show_FCP_dev  is deprecated and has been
replaced by the new show_SCSI_LUN option:
cfgadm -al -o show_SCSI_LUN <controller name>
```

Product
Sun StorageTek SAN 4.0 Software
SAN Configuration

Keywords
SAN, cfgadm, 9980

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Attachments
This solution has no attachment