



Installation of NFS with AoE Giga SAN - A Workthrough



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創鑫資訊

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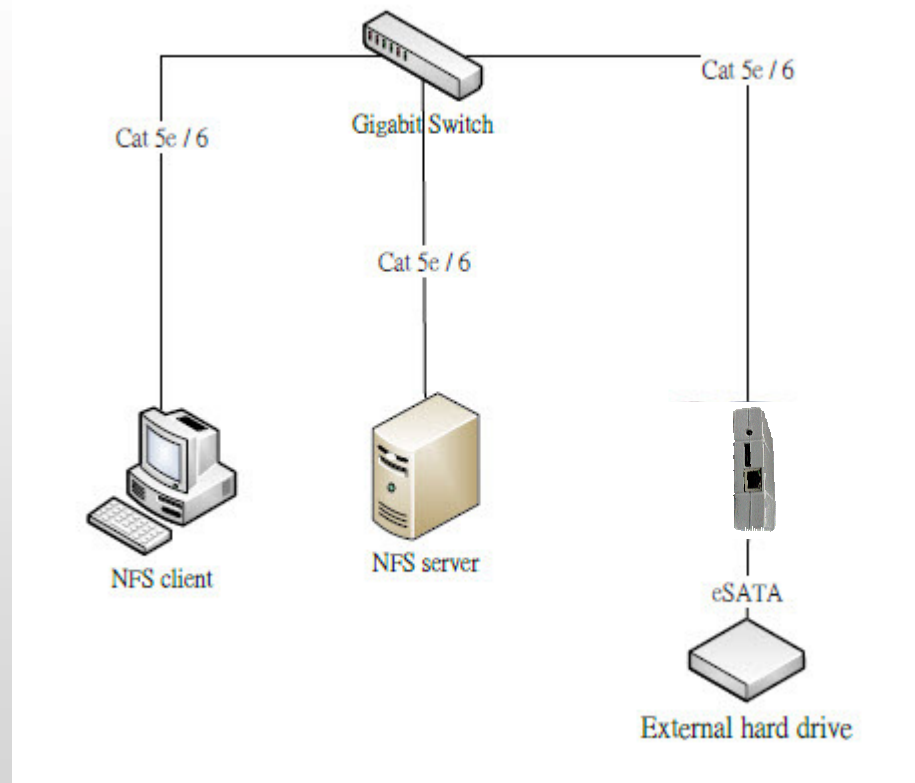
Objectives

- To mount AoE disk in mount point.
- NFS server installation and configuration.
- NFS client configuration.
- To test NFS connection.

Requirement

- Hosts support intel x86 or x86_64 on linux base.
- Hosts support AMD or AMD64 on linux base.
- Operation systems are Linux system.
- DNS Resolve resolves correctly host name and ip address.

NFS lab is in AoE SAN infrastructure



Lab environment

- AoE enabler external box
- External hard drive (including eSATA interface)
- NFS server
 - Operation system :Novell SuSE enterprise server 10
 - Hostname :aoe1.linux.demo
 - Ip address :172.16.0.1/12
 - Package :portmap 、 yast2-nfs-server 、 nfs-utils 、 aoe6-73
- NFS client
 - Operation system :Novell SuSE enterprise server 10
 - Hostname :aoe2.linux.demo
 - Ip address :172.16.0.2/12
 - Package :portmap 、 yast2-client

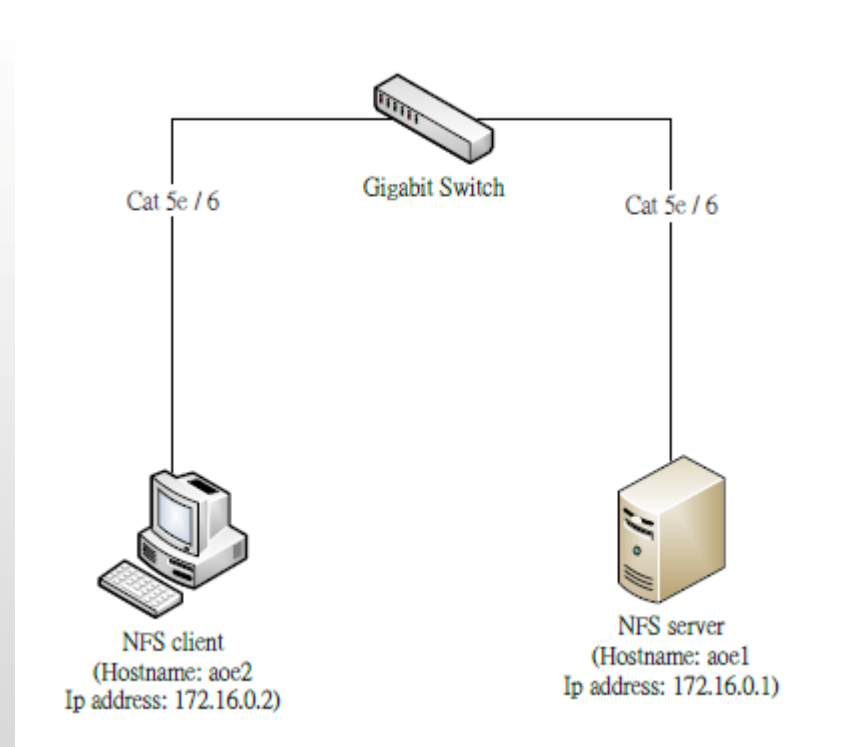
Step 1: Connect with AoE product

- To use eSATA cable connecting AoE enabler external box and external hard drive.
- The network cable link AoE enabler external box and a gigabit switch.



Step 2: Connect with NFS server and client

- A gigabit switch connects with NFS server and NFS client using network cable.



Step 3: Install aoe driver

- Log on host “aoe1”.

- Type command:

```
#wget http://support.coraid.com/support/linux/aoe6-73.tar.gz
```

```
#tar -zxvf aoe6-73.tar.gz
```

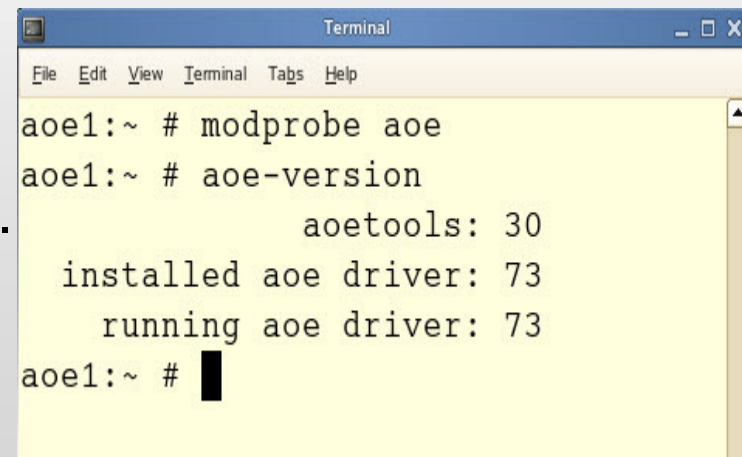
```
#cd aoe6-73
```

```
#make; make install
```

- Check aoe installing successfully or not.

```
#modprobe aoe
```

```
#aoe-version
```



```
Terminal
File Edit View Terminal Tabs Help
aoe1:~ # modprobe aoe
aoe1:~ # aoe-version
                aotools: 30
    installed aoe driver: 73
        running aoe driver: 73
aoe1:~ # █
```


Step 4-1: Mount aoe disk

- Type command:

```
#mkdir /nfsshare
```

```
#aoe-discover
```

```
#aoe-stat
```

Step 4-2: Mount aoe disk

- Mount aoe disk in mount point. (Please follow your physical environment)

```
#mount -t ext3 /dev/etherd/e0.0p1 /nfsshare
```

```
#ls /nfsshare
```



```
Terminal
File Edit View Terminal Tabs Help
aoe1:~ # mkdir /nfsshare
aoe1:~ # aoe-discover
aoe1:~ # aoe-stat
          e0.0          164.696GB          eth4 1024  up
aoe1:~ # mount -t ext3 /dev/etherd/e0.0p1 /nfsshare
aoe1:~ # ls /nfsshare
lost+found
aoe1:~ #
```

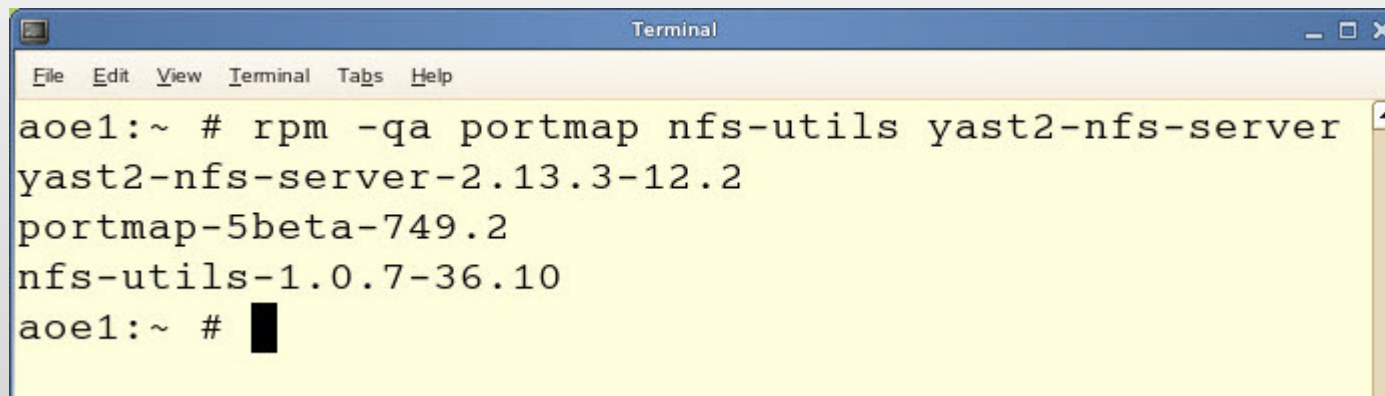
Step 5: Install NFS server

- Type command:

```
#yast -i portmap nfs-utils yast2-nfs-server
```

- Check nfs server installing successfully or not.

```
#rpm -qa portmap nfs-utils yast2-nfs-server
```

A terminal window titled "Terminal" with a menu bar (File, Edit, View, Terminal, Tabs, Help) and window controls. The terminal shows the command `# rpm -qa portmap nfs-utils yast2-nfs-server` and its output: `yast2-nfs-server-2.13.3-12.2`, `portmap-5beta-749.2`, and `nfs-utils-1.0.7-36.10`. The prompt `aoe1:~ #` is followed by a black cursor block.

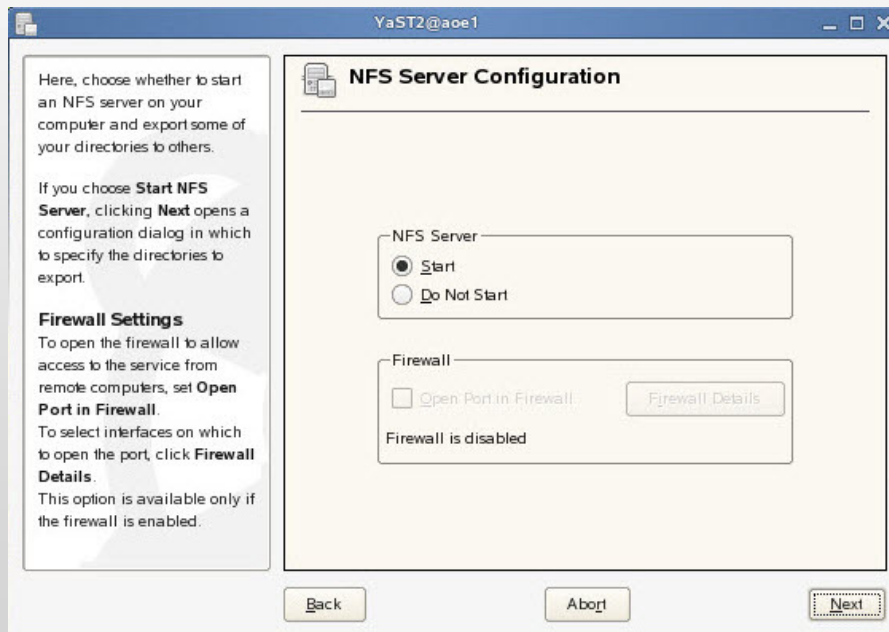
```
Terminal
File Edit View Terminal Tabs Help
aoe1:~ # rpm -qa portmap nfs-utils yast2-nfs-server
yast2-nfs-server-2.13.3-12.2
portmap-5beta-749.2
nfs-utils-1.0.7-36.10
aoe1:~ # █
```

Step 6-1: Configure NFS server

- Open NFS Server UI:

click “computer”→ YaST→ Network Services→ NFS Server.

choose “Start”→ click “Next”.



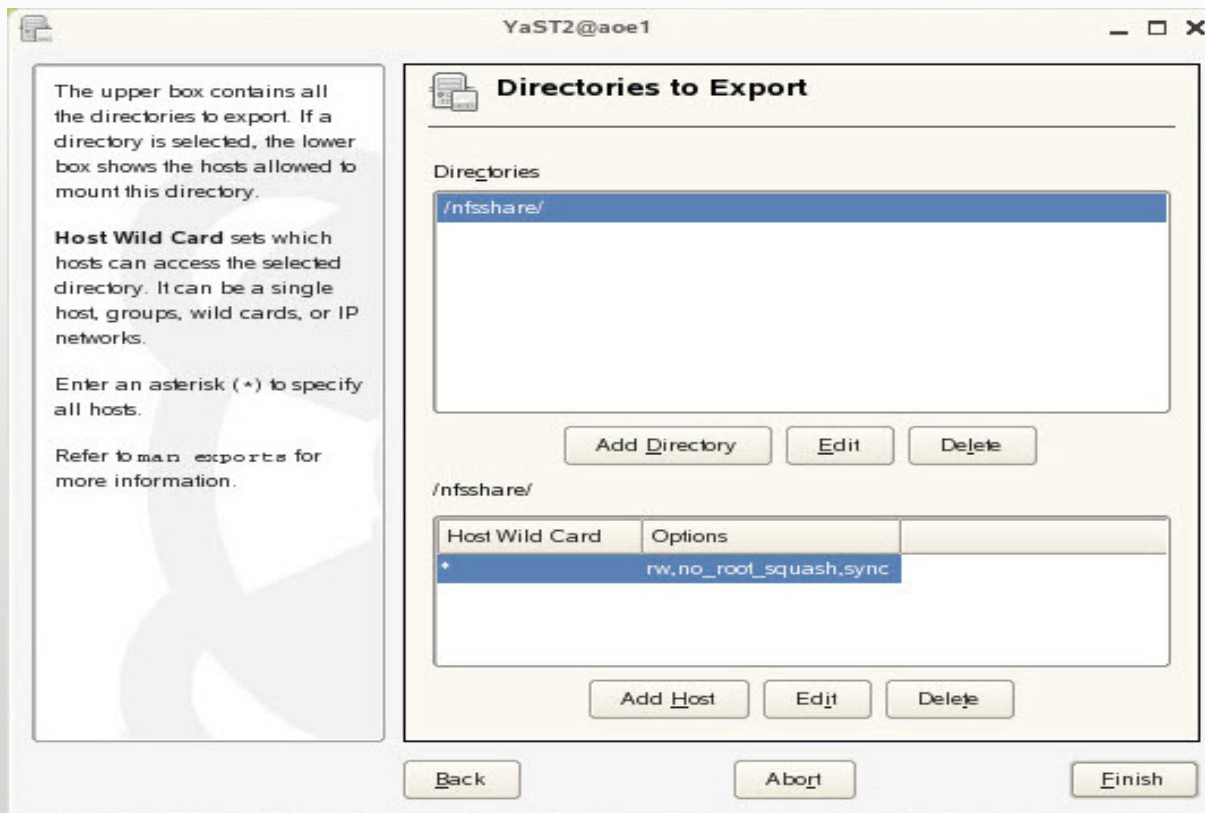
Step 6-2: Configure NFS server

- Follow the information below:

click “Add Directory”→ type “/nfsshare”→ click “OK”→ type “ * ” in “Host Wild Card” field→ type “rw,no_root_squash,sync” in “Options” field→ click “OK”→ click “Finish”.

Step 6-3: Configure NFS server

- For example:



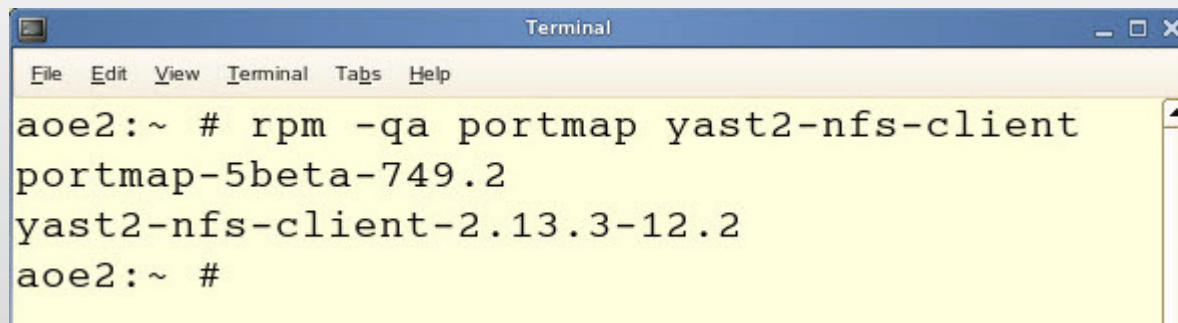
Step 7: Install NFS client

- Type command:

```
#yast -i portmap yast2-nfs-client
```

- Check nfs server installing successfully or not.

```
#rpm -qa portmap yast2-nfs-client
```

A terminal window titled "Terminal" with a menu bar (File, Edit, View, Terminal, Tabs, Help) and window controls. The terminal shows the command `# rpm -qa portmap yast2-nfs-client` and its output: `portmap-5beta-749.2` and `yast2-nfs-client-2.13.3-12.2`. The prompt `aoe2:~ #` is visible at the end.

```
aoe2:~ # rpm -qa portmap yast2-nfs-client
portmap-5beta-749.2
yast2-nfs-client-2.13.3-12.2
aoe2:~ #
```

Step 8-1: Configure NFS client

- Type command:

```
#mkdir /nfsclient
```

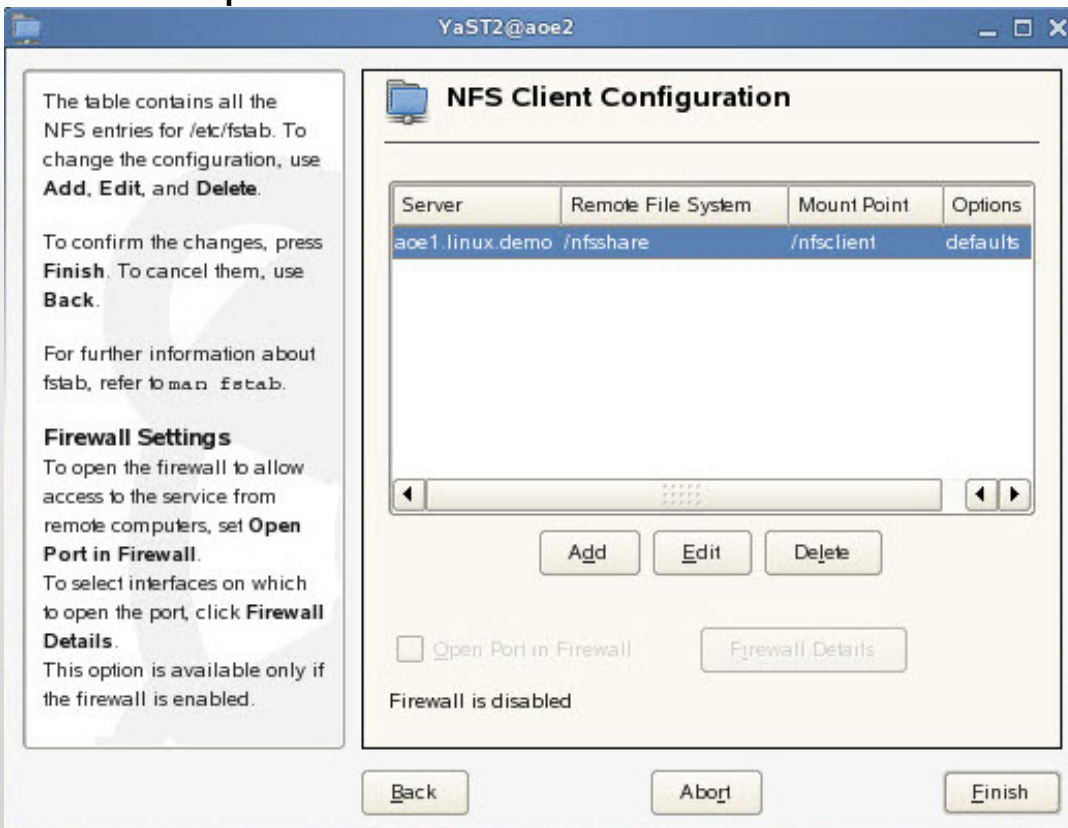
- Open NFS Server UI:

click “computer” → YaST → Network Services → NFS Client.

choose “Add” → type “aoe1.linux.demo” in “NFS Server Hostname” field → click “Select” → choose “/nfsshare” → click “OK” → type “/nfsclient” in “Mount Point (local)” field → click “OK” → click “Finish”.

Step 8-2: Configure NFS client

- For example:



Step 9: Test NFS function

- Type command:

```
#ls /nfsclient
```

```
#cp -rv *.* /nfsclient
```

- To check and observe NFS connection:

```
#ls /nfsclient
```

```
#cp -rv *.* /nfsclient
```