

# Connecting NEXTSTEP-Systems to a Helios Ethershare-Server

(Please read the file *SolarisE.rtf* for additional information.)

## 1 Configuring the Helios Server

**Requirement: Helios must be installed under Solaris 2.x or AIX .**

### 1.1 Adding a new (NEXTSTEP)-Client

Open the file `/etc/hosts` and add the NEXTSTEP system's name and IP address.

### 1.2 Giving access to Print Services

Open or - if not existing - create the files `/etc/hosts.lpd` or `/etc/hosts.equiv` and enter the host name of the

NEXTSTEP host. You can also enter just '+'. This allows all clients to access the print spool demons. (This doesn't work under AIX).

### 1.3 Printer Names

Open the file */usr/local/es/conf/atalk.conf*. It should hold at least one *papsrv* entry:

```
papsrv: name="helios_OPI", printer=OPI_PAP, resolve, lpr="/usr/local/es/lpr", nomail
```

In this sample the printer name is "OPI\_PAP". All printers are also registered in the file */etc/printcap*. But not all printers that are found there have to be Ethershare printers.

Write down all printer names you want to use from your NEXTSTEP host. (Observe case-sensitivity.) Note that you can only use printers under Helios Ethershare that have been registered using the Helios administration application.

### 1.4 NFS Exports

Open the file */etc/dfs/dfstab*. This file holds all NFS Exports that have been created using the *share* command. It should contain a list one sample command which is commented out by a '#'. If no *share* commands are found there, consult your Helios documentation for the precise syntactical rules of this command. Register all folders you want to access from your NEXTSTEP host. This can be done any time without restarting your system by entering a command like the following one in a UNIX shell window:

```
share -F nfs /export/home
```

(This doesn't work under AIX.)

When the communication between Solaris and NEXTSTEP has been established (on the IP layer), you can check the NFS folders supplied by the Solaris server. Use the command *showmount* on your NEXTSTEP system.

## **1.5 Restarting the Server**

For validating the entries in the */etc/hosts.\** files, you have to restart the server.

## **2 Configuring the NEXTSTEP system**

### **2.1 Login as <sup>a</sup>root<sup>a</sup>**

If you have just installed NEXTSTEP, you are automatically logged in as <sup>a</sup>me<sup>o</sup>. Start the Preferences application (*/NextApps/Preferences.app*), select the Lock icon and set a password for the user <sup>a</sup>me<sup>o</sup>. Return to

the workspace menu and log out. Now log in as `root` in the appearing login panel. (No password is required for `root` before you set it.)

## 2.2 Creating a NetInfo database

Launch the *SimpleNetworkStarter* from the folder */NextAdmin*. If you have already experimented with this application, you should first reset the files *hostconfig* and *netinfo* with the following commands:

```
cd /usr/template/client/etc
cp hostconfig /etc
cp -r netinfo /etc
reboot    (this restarts the system!)
```

Select the `Provide the services specified below.` option (third option from the top) in section `1.` of the *SimpleNetworkStarter* panel. Enter the host name and the IP address of your system in section `2.` Use the same name and address as you've used on the Solaris server. Click the `Configure` button. Quit the *SimpleNetworkStarter* after the configuration is finished. You should never need the *SimpleNetworkStarter* again, except if you have to repeat the procedure for setting up the network again.

## 2.3 Making the Solaris host public

Launch the *HostManager* application, which is also located in the */NextAdmin* folder. Select `Host / New`

from the menu and enter the host name and the IP address (Internet Address) of the Solaris server. Don't fill in the "Ethernet Address" field.

Click the "Save To Domain" command in the *HostManager* menu. Select the domain "/" - do not select the domain with the host name of the NEXTSTEP host! Finally press the Return key.

## 2.4 Setting up Printers

Start the program *RemotePrinter* from the OneVision CD (*OneVision/Tools* folder). Enter a random printer name. This is the name used to access the printer from your NEXTSTEP system. (You may only use alpha-numerical characters. You must not use spaces.) Also enter the name of the remote host - this is your Helios server - and the name of the exact name of the remote printer - this is how you named the printer on the remote host. Finally click "Create Printer." Repeat this procedure for all printers you want to access.

Remove printer names may automatically be adjusted to the NEXTSTEP naming conventions. This has to be corrected as follows:

Launch the *NetInfoManager* from the folder */NextAdmin*. A panel appears listing all NetInfo entries of the local domain of your host in a browser. Selecting "printers" lists all printers that are already installed. Double-click a printer entry whose name hasn't been accepted by the *RemotePrinter* application. A further panel appears showing a table with the columns "Key" and "Value". Select the value for the key "name". In the entry field in the lower part of the panel you now can correct the printer name to correspond with the name you

specified on the Helios server. Press the Return key to register your modification and close the panel. Repeat this procedure for all printers that haven't been accepted by the *RemotePrinter* application.

Now you should copy your printer definitions to the root NetInfo domain. Click "Domain" / "Open" from the NetInfoManager menu and select the "/" domain from the list panel that appears. A new browser is opened, in which you also select the "printers" entry. There may already be printers in this folder.

At this time the browsers of the local domain and the root domain should be open and the folder "printers" should be selected in both of them. On the right of each browser a file folder icon is displayed. Select the Helios printers from the local domain panel and drag their folders to the root domain panel. Releasing the left mouse button, after the cursor icon has turned green, copies the printer definitions to the "printers" folder of the root domain. Repeat this procedure for each printer. After copying the printers, you can delete them from the local domain.

Now restart your NEXTSTEP system.

## 2.5 Creating NFS Mounts

Open a UNIX shell window using the */NextApps/Terminal.app* application. Enter the following command:

```
/usr/etc/showmount -e {hostname solaris-server}
```

(If the message `RPC: Program not registered` appears, your server doesn't export NFS directories. In this case you have to create NFS exports for the desired directories. This is explained in section 1.4.)

Launch the *NFSManager* from the folder */NextAdmin*. Close the two panels that are opened automatically. They are not needed. Click `Import To` from the menu and select the `/` domain. Double-click the `/` domain entry. The `Imported Directories` panel appears. Click the `Add` command there and enter the server name and a directory this server should export. Register your entries by pressing the Return key. Repeat this procedure for all further directories you want to be exported.

A mount point can be specified for each imported directory. This usually is `/Net`. You would want to change this if you are using OPI. In this case it might be more convenient to specify a path that is used by layout clients (e.g. Macintoshes) when they access directories on the server.

Finally you have to restart the system.