

### 3.3 Release Notes:

#### Upgrading Remotely Across a Network

If your network contains a number of computers you want to upgrade to NEXTSTEP Release 3.3, you can set up an upgrade server that you can use in place of the *NEXTSTEP* CD-ROM when you upgrade individual computers on the network. If your network contains a number of computers with identical configurations of hardware and NEXTSTEP software, you can also use the RemoteUpgrade utility to upgrade as many as 20 computers simultaneously.

This document describes how to set up an upgrade server and how to use the RemoteUpgrade utility. Upgrading a computer from an upgrade server using the Upgrader application is described in *Upgrading to NEXTSTEP Release 3.3*.

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**Caution:** If you plan to upgrade more than one computer, start with a computer that isn't critical to your network's operation. Upgrading a test computer minimizes the time needed to diagnose and fix problems. Once you're confident that you're ready to install Release 3.3 on all your computers, you can upgrade more important ones.

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## Setting up an upgrade server

You set up an upgrade server by selecting each computer you want to act as a server, installing NEXTSTEP Release 3.3 on it, copying the contents of the *NEXTSTEP* CD-ROM into a directory on the server, and then using NFSManager to export that directory.

1. Select each computer you want to set up as an upgrade server.

You need to at least one upgrade server on each subnet. You can use any kind of computer (Intel-based, NeXT, SPARC, or PA-RISC) as an upgrade server for any other kind of computer.

Because you will copy the contents of the *NEXTSTEP* CD-ROM onto it, an upgrade server needs about 300 megabytes of free disk space. You also need to connect a CD-ROM drive to the server to complete these instructions.

If you plan to use an upgrade server to upgrade Intel-based or NeXT computers, you NFS-export a copy of the *NEXTSTEP* CD-ROM that comes with NEXTSTEP Release 3.3 for Intel Processors and NeXT Computers. If you plan to use an upgrade server to upgrade SPARC or PA-RISC workstations, you NFS-export a copy of the CD-ROM that comes with NEXTSTEP Release 3.3 for SPARC and PA-RISC Workstations. If you have mix of computers that require both CD-ROMs, you can set up two upgrade servers, each NFS-exporting one of the CD-ROMs. If you have an upgrade server with 600 megabytes of free disk space, you can NFS-export the two directories from the same server.

2. Upgrade the software on the upgrade server to NEXTSTEP Release 3.3, using the *NEXTSTEP* CD-ROM.

You can follow the instructions in *Upgrading to NEXTSTEP Release 3.3* to upgrade from any earlier version of NEXTSTEP Release 3. Or you can install NEXTSTEP Release 3.3 from scratch, as described in *Installing and Configuring NEXTSTEP Release 3.3*.

3. Log into the server as **root** and create a directory where you will copy the contents of the *NEXTSTEP* CD-ROM.

You can create a directory on the server's startup disk or use all or part of another disk (or partition) that's connected to the server.

4. Insert the *NEXTSTEP* CD-ROM in the CD-ROM drive and use the following command to copy the contents of the CD-ROM into the directory you created:

```
ditto /NEXTSTEP_3.3 /UpgradeDirectory
```

Change **/NEXTSTEP\_3.3** to **/NEXTSTEP\_3.3risc** if you're copying the CD-ROM that comes with NEXTSTEP Release 3.3 for SPARC and PA-RISC Workstations. Replace **/UpgradeDirectory** with the name of the directory you created in step 3.

5. Start up NFSManager (it's in **/NextAdmin**).
6. Drag the directory you created in step 3 from the File Viewer to the icon well in NFSManager's Exported Directories window.
7. Choose <sup>a</sup>Read-only<sup>o</sup> from the upper pop-up list.
8. Check <sup>a</sup>Allow unknown users.<sup>o</sup>
9. Choose <sup>a</sup>User with uid:<sup>o</sup> from the lower pop-up list and type **0** in the field next to it.

**Caution:** Setting the `^User with uid^` option to 0 removes security from the upgrade server's file system. Make sure that you've selected a computer where this lack of security is appropriate and that you reset this option when you're done using the server for upgrading.

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- Click the Add button in NFSManager's Imported Directories window and in the panel that opens, type the host name of the upgrade server in the upper field and the pathname of the directory you created in step 3 in the lower field. Then click OK.

- Quit NFSManager and restart the upgrade server.

The computer is now ready to use as a network upgrade server.

## Preparing to use the RemoteUpgrade utility

Before you can use the RemoteUpgrade utility to upgrade multiple, identically configured computers, you need to upgrade one of those computers to create files the RemoteUpgrade utility uses as templates. You also need to alter a file on each computer you want to upgrade so you can execute programs as **root** when you're logged into another computer.

1. Use the Upgrader application to upgrade one of the identically configured computers (we'll refer to this as the *template computer*).

Using the Upgrade application is described in *Upgrading to NEXTSTEP Release 3.3*.

2. Create a directory called **RemoteUpgradeFiles** on a partition that is NFS-mounted by all the computers you want to upgrade with the RemoteUpgrade utility.
3. Copy the files **/Release3.3.uplan** and **/Release3.3.uplan.bom** from the template computer into the **RemoteUpgradeFiles** directory. (If the template computer is a SPARC or PA-RISC workstation, these files are named **/Release3.3risc.uplan** and **/Release3.3risc.uplan.bom** instead.)
4. Copy the **/UpdatedBoms** directory from the template computer into the **RemoteUpgradeFiles** directory.
5. Copy the RemoteUpgrade utility from **/Upgrader.app/Default.upgrade/RemoteUpgrade** on the *NEXTSTEP* CD-ROM into the **RemoteUpgradeFiles** directory.
6. Add a line containing the host name of the computer on which you will be running the

RemoteUpgrade utility to the **/rhosts** file on each computer you want to upgrade.

For more information on the `/etc/hosts` file, see the UNIX manual page for `hosts.equiv`.

## Upgrading multiple computers with the RemoteUpgrade utility

Once you've set up an upgrade server, created the template files, and prepared the computers you want to upgrade (as described in the previous two sections), you can use the RemoteUpgrade utility to upgrade multiple, identically configured computers.

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**Caution:** The RemoteUpgrade utility is for quickly upgrading a network of computers with *identical* hardware and software configurations. If you use this utility to upgrade computers that don't have identical configurations, the upgrades may not be successful. In this case, use the Upgrader application on each individual computer instead.

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1. Become **root** in a Terminal window on the computer whose host name you added to the ***/etc/hosts*** files of the computers you want to upgrade.
2. Run RemoteUpgrade once for each computer you want to upgrade, using the following syntax:

*Path/RemoteUpgrade ComputerToUpgrade PathToUpgradeDirectory*

where ***Path*** is the full NFS-mounted path (visible from the computer you want to upgrade) to the **RemoteUpgradeFiles** directory you created in the previous section, ***ComputerToUpgrade*** is the host name of the computer you want to upgrade, and ***PathToUpgradeDirectory*** is the NFS-mounted path to the directory on the upgrade server

you created in the first section of this document—the directory that contains a copy of the *NEXTSTEP* CD-ROM.

**Note:** Don't try to upgrade more than 20 computers at a time, to avoid overwhelming the capacity of the network. Otherwise, network performance degradation could cause the upgrades to fail.