

UNIX Connectivity for Prinergy

Installation and Configuration

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1. INTRODUCTION

Prinergy® supports two types of connectivity:

- Basic connectivity (access and refine input files/images on UNIX® file server)
- Output to Lotem® or Dolev® via Brisque®, or to a proofing device through UNIX RIP

Both types of connectivity can use either Hummingbird® NFS Maestro Client 7.1 or Microsoft® Services for UNIX 3.5 software.

For UNIX tertiary nodes (Prinergy job folders on a UNIX server), Samba® should be used. If Samba is installed and configured on the UNIX server, it should be used for basic connectivity and output to Lotem or Dolev, and is the preferred connectivity solution (rather than using Hummingbird NFS Maestro or Microsoft Services for UNIX).

1.1 Basic Connectivity

Basic UNIX connectivity is an enhancement to Prinergy workflows to support customers who wish to continue to use their UNIX server as a file server. It uses an NFS software solution to make the files stored on the UNIX server available to the Prinergy workflow and accessible from Windows client workstations.

This means that any input files stored on the UNIX server, including PostScript® files and imposition plans, can be added to a Prinergy job residing on a server on which this solution has been installed and configured. Customers might have their own OPI server on the UNIX computer and fatten up the thin PostScript files, and then add them though Prinergy Workshop or use Prinergy OPI and add thin PostScript files off the UNIX volumes. The input files always reside on the UNIX volumes and the Job Folder resides on the Windows side.

1.2 Output to UNIX Servers

Prinergy can write files to UNIX servers for the purpose of sending output to a Lotem or Dolev or to the various proofing devices attached to UNIX RIPs.

1.3 Where Installed

The NFS Client must be installed on the primary server and on any secondary server or render station that meets any of the following criteria:

- The server runs a normalizer
- The server runs a proofing JTP that will output directly to a UNIX server

1.4 Materials Needed

1.4.1 Hummingbird NFS Maestro

- Hummingbird NFS Maestro Client version 7.1 CD and license for each server
- Hummingbird NFS Patch 7.1.0.3, available from the TechPlanet Networking site
- *Hummingbird Maestro NFS: Installation and Configuration*, 72-3056A-K, available from the TechPlanet Networking site

1.4.2 Microsoft Services for UNIX (SFU)

- Kodak Services for UNIX Installation CD (651-00532A)
- *Microsoft Services for UNIX 3.5 Server and Client Installation and Configuration* (750-00264A)

1.5 Overview of UNIX for Prinergy Connectivity Procedures

Responsible person	Task
A qualified UNIX administrator at the customer site, before the installation	**Hummingbird NFS** Installs one of the NFS authentication daemons (**Pcnfsd** or **HCLnfsd**) on each UNIX file server. **Hummingbird NFS and Microsoft Services for UNIX 3.5** Creates a UNIX user account that the Hummingbird NFS software on the Prinergy server will use to access files on the UNIX server. The UNIX directory should specify read/write privileges for this account. If connecting to Brisque, the existing Scitex account can be used. If there is more than one UNIX server, the administrator creates the same username and password on each server and ensures that all of them are assigned the same user ID at the time of creation. The user IDs *must* be the same for correct authentication.
A Kodak specialist (qualified in Windows 2000 and Prinergy) on site during installation	**Hummingbird NFS** 1. Installs Hummingbird NFS Maestro Client software version 7.1 and patch 7.1.0.3 on each eligible Prinergy server. 2. Maps name and address of UNIX servers on Windows servers in the **%System Root%\system32\drivers\etc\hosts** file. 3. Checks network provider order. 4. Runs the NFS Export utility to make the UNIX volumes viewable via a network browser. 5. Registers the UNIX user ID with NFS Maestro. 6. Edits the UNIX **\etc\hosts** file and the Prinergy **%AraxiHome%\CreoAraxi\etc\otherhosts** file to identify Prinergy and UNIX servers, volumes, zones, and shares to each other. 7. Adds UNIX volumes in Prinergy. (Changes the network binding order following a special procedure if PCShare is installed on the UNIX server.) 8. Tests basic UNIX connectivity (and output to Brisque, if required). 9. Troubleshoots the installation as necessary. **Microsoft Services for UNIX 3.5** 1. Installs Microsoft Services for UNIX 3.5 client on each eligible Prinergy server and configures user name mapping. 2. Maps name address of UNIX servers on Windows servers in: **%System Root%\system32\drivers\etc\hosts** file. 3. Checks network provider order. 4. Edits the UNIX \etc\hosts file and the Prinergy **%AraxiHome%\CreoAraxi\etc\otherhosts** file to identify Prinergy and UNIX servers, volumes, zones, and shares to each other. 5. Adds UNIX NFS volumes in Prinergy. (Changes the network binding order following a special procedure if PCShare is installed on the UNIX server.) 6. Tests basic UNIX connectivity (and output to Brisque, if required). 7. Troubleshoots the installation as necessary.

2. ON-SITE INSTALLATION AND CONFIGURATION

2.1 Installing NFS Hummingbird Maestro

See *Hummingbird Maestro NFS: Installation and Configuration* (72-3056A-J).

2.2 Installing and Configuring Microsoft Services for UNIX Client

For instructions on installation, configuration, and user name mapping, see *Microsoft Services for UNIX 3.5 Server and Client Installation and Configuration* (750-00264A).

2.3 Adding Addresses on Prinergy Servers

Add the UNIX server's IP address and server name to the **%System Root%\system32\drivers\etc\hosts** file on the Windows servers.

To edit the Windows **%System Root%\system32\drivers\etc\hosts** file:

1. Browse to **D:\WINNT\system32\drives\etc**.
2. To the **%System Root%\system32\drivers\etc\hosts** file, add:

   Format:

   ```
   ###.###.###.###      UNIXServerName (For example: 10.1.70.20 ultra)
   ```

2.4 Checking the Network Binding Order

For better performance, ensure that **Microsoft Windows Network** is at the top of the network binding order list and that Hummingbird or NFS Network (for SFU 3.5) appears below it.

To check the Network provider order:

1. On every server where Hummingbird is installed, select **Start > Settings > Control Panel > Network > Dialup Connections**.
2. Select **Local Area Connection**.
3. Select **Advanced** and click **Advanced Settings**.
4. Select the **Provider Order** tab and use the up and down arrows to move **Microsoft Windows Network** to the top of the list.
5. Select the **Print Providers** tab and use the up and down arrows to move **LanMan Print Services** to the top of the list.

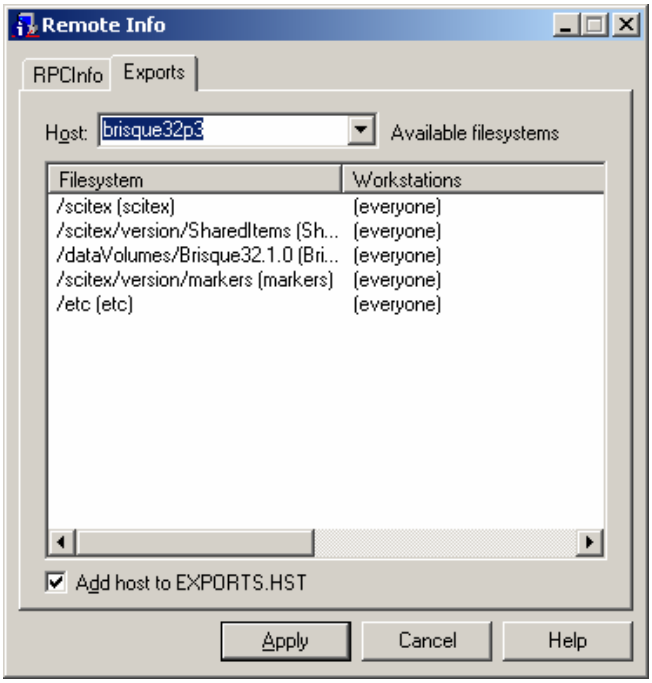
2.5 Running the NFS Exports Utility (Hummingbird NFS Maestro only)

1. After NFS Maestro Client is installed, select **Start > Programs > Hummingbird Connectivity V7.0 > NFS Maestro Client** and run the **Remote Info** utility.
2. Select the **Exports** tab.
3. Select the **Add host to EXPORTS.HST** check box.

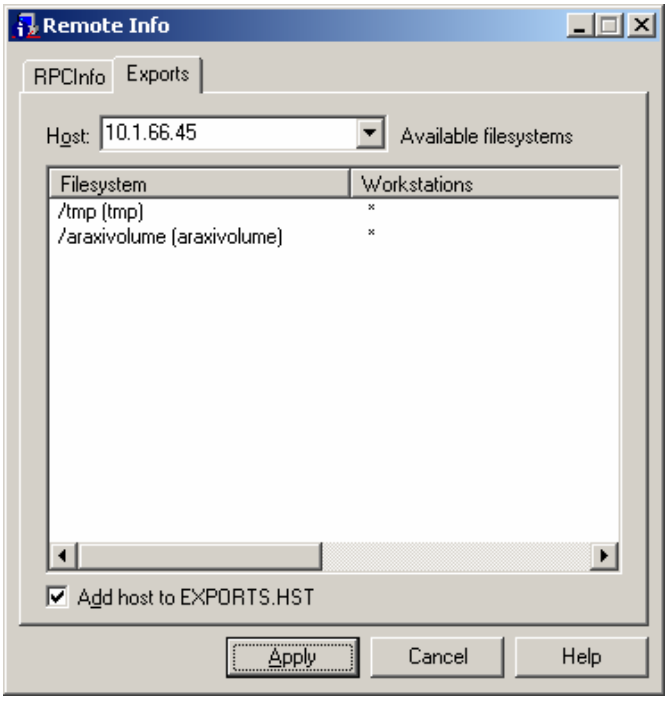
4. Type the name of the UNIX server in the **Host** box.

5. Click **Apply**.

This exports the NFS volume names from the UNIX server to be permanently added to the Hummingbird NFS network. You will now be able to see the file systems exported from the UNIX server by viewing the Hummingbird NFS network using a network browser (**Network Neighborhood > Windows Explorer > Entire Network > Hummingbird NFS**).



Exports example using the **brisque32p3** host server name.



Exports example using the **10.1.66.45** host server name.

2.6 Registering UNIX User Name with Hummingbird NFS Maestro

1. Log on to the Prinergy server with the Prinergy Service user name and password.
2. Access the NFS Maestro Network: **Start > Programs > Hummingbird Connectivity V7.1 > NFS Maestro Client > NFS Network Access**.
3. Click **Connect using a different user link**
4. Type the user name and password you will use to connect and be authenticated on the UNIX server. The UNIX administrator at the customer site should be able to provide this user name and password.

   Note: Kodak recommends that this user name and password match the user name and password that Prinergy Service is running under. For example, **User name: ARAXI, Password: ARAXI**.
5. Click **Register**.
6. Click **OK**.
7. Click **Browse**. The Browse Network Connection dialog box appears.
8. Select the appropriate connection then click **OK**.
9. Ensure that the **Reconnect at logon** check box is selected.
10. Click **Connect**. The Hardware Compatibility List dialog box should now indicate **Device Linked** to.
11. Click **OK**.
12. Click **Cancel**.

2.7 Adding Addresses on UNIX and Prinergy Servers

On the UNIX server, check that the Internet Protocol (IP) addresses and server names for the Prinergy servers have been correctly added to the **/etc/hosts** file. (The customer should have already set up a user ID and password.)

Use the NT Command **ipconfig** to read the Prinergy server's IP address. Use **System Properties** to read the server name.

On the UNIX server:

Add host names and IP addresses of all of the Prinergy servers to the **/etc/hosts** file on the UNIX server.

Format:

```
###.###.###.###   PrinergyServerName
```

If you are not familiar with VI, the UNIX file editor, contact a UNIX administrator to do this for you.

2.8 Configuring the Otherhosts File on Prinergy Servers

Edit the Prinergy servers' **otherhosts** file to add all of the UNIX servers, volume names, and Macintosh Appletalk® zones you will want to access.

To edit the otherhosts file:

1. Ensure Prinergy is closed.
2. Use Explorer to locate the **otherhosts** file in **D:\Prinergy3.0.x\creoaraxi\etc** on the primary server (where 3.0.x is the version of Prinergy software installed).
3. Use **Notepad** to open and edit the file.
4. In the **[/etc/otherhosts]** section, identify equivalent Macintosh and Windows server names.

   Format:"MacZoneName:MacName forUNIXServer"="WindowsNameforUNIXServer"

   Example:

   ```
   "third_floor:ultra"="ultra"

   "third_floor:SGI"="SGI"
   ```

   The names `ultra` and `SGI` are UNIXServerNames. These names do not have to be the same on the Mac side and on the Windows side—they just have to be identified as equivalent, using this statement.

   If the UNIX box is to be accessed from different Mac zones, enter any additional zone names for the zones in which UNIX will reside.

   Example:

   ```
   "Production:ultra"="ultra"

   "Printing:ultra"="ultra"

   "Administration:ultra"="ultra"
   ```

   If there is no Appletalk zone, you can omit "MacZoneName:" or use "*:"

   Example:

   ```
   "*:ultra"="ultra"
   ```

5. In the **[shares] section**, add:

   For each UNIX box named in Windows, identify the Mac name for the volume and the equivalent Windows name for the volume.

   Format: NTHost="WindowsNameforUNIXServer"
   "MacVolumeName"="WindowsShareName"

   Example:

   ```
   NtHost="SGI"

   "data1"="data1"
   ```

```
NtHost="ultra"

"araxijobfolder"="araxivolume"
```

Again, the volume/share names do not have to be the same on the Macintosh side and on the Windows side—they just have to be identified as equivalent, using this statement.

6. Be careful to **Save** the file as **otherhosts** and not **otherhosts.txt**.
7. Copy the edited **otherhosts** file to all secondary servers and render stations.
8. Any change in **otherhosts** requires that you restart Prinergy.

2.9 Adding Volumes in Prinergy

1. Restart Prinergy.
2. In UADM, select **Tools > Configure system**. The Configuration Options dialog box opens.
3. In **Shared Folders** (Prinergy 2.x) or **Input Volumes** (Prinergy 3.x), locate UNIX volume(s). Double-click or select and click to add all of the volumes you want to access. Alternatively, you may be able to enter the UNC path to the UNIX volume.

If the customer has PCShare on their UNIX server:

When you try to add a shared volume using UADM, you will only see the SMB volumes, unless you temporarily change the provider order to have Hummingbird or NFS Network (for SFU 3.5) on top, and then switch it back, as follows:

1. Set **Provider Order** to have **Hummingbird NFS** or **NFS Network** at the top of the list.
2. Add shares in UADM. (If Microsoft is on top, when you try to add volumes from a UNIX box with SMB shares, you will see only the SMB shares.)
3. Change **Provider Order** back to put **Microsoft Windows** at the top.
4. Restart Windows.
5. Check to ensure you can see the UNIX server. If not, try restarting Windows.

3. TESTING UNIX CONNECTIVITY

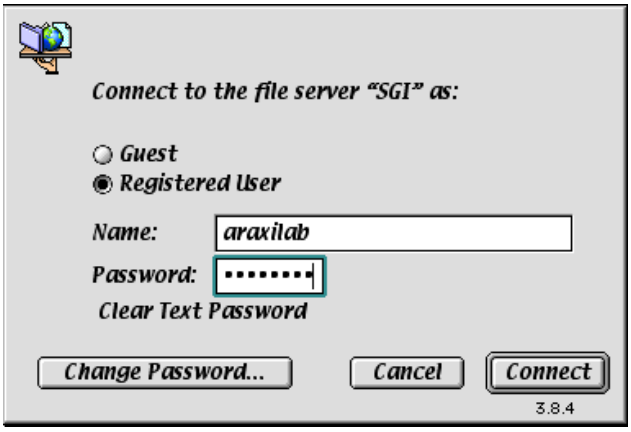
3.1 Adding Input in Prinergy

Note: You are seeing shares exported using the client's Macintosh connectivity solution if using a Macintosh and connecting to the UNIX machine. Macintosh did not support NFS natively until OS X. If you do not see the share you want, contact the UNIX Administrator for the site and have them add it.

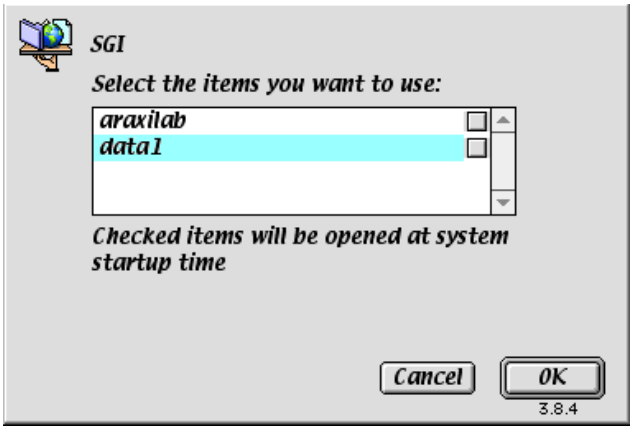
If you are testing basic UNIX connectivity, create a Prinergy job then add and refine input files, images, and imposition plans that are stored on the UNIX file server.

To add input to a Prinergy job from UNIX:

1. Mount the UNIX share using **Mac Chooser** (use **Explorer > Tools** on a Windows workstation). A Macintosh example:



   Click **Connect**. The SGI dialog box appears.



   Mount the UNIX share.

2. Start Prinergy Workshop.
3. Open a job folder.
4. To add input files, select **File > Add Input**.
5. Browse all volumes, select the PostScript files needed, and then click **Add Input**.
6. Test the ability to **Refine** (or output), using the Normalizer (or proofing device) that is resident on each server.

   Note: If thin PostScript files are added and Prinergy OPI is used, then the thin PostScript files should not include any pointers to image file names that are longer than 31 characters or that have any Macintosh characters in their file names.

3.2 Sending Output to UNIX

To complete the installation, test sending the output to the Lotem or Dolev via Brisque, or to a proofing device via the UNIX RIP.

To set up to send output to a UNIX server:

1. From the Windows or Macintosh client Workshop or Job Finder, select **Tools > Process Plan Editor**. The Process Plan Editor dialog box appears.
2. Select an output plan.
3. Using **Device > Drive Path**, select the UNIX server.

   Prinergy outputs TIFF files to the Brisque via a Proofing JTP and NFS. A Brisque hot folder then sends the job to the Lotem or Dolev output device.

   Alternatively, Prinergy outputs to a UNIX RIP via NFS, then the UNIX server outputs to a proofing device.

4. TROUBLESHOOTING

4.1 Verify UNIX Daemons Required by Hummingbird NFS Maestro

The daemons needed are: **PCnfsd** or **HCLnfsd**.

To verify on the UNIX server, type: `ps -A | grep hclnfsd`

If you do not see any output, try typing: `ps -A | grep pcnfsd`. If you still do not see any output, the daemons are not running.

If the daemons are not running, contact the UNIX administrator for the site.

The **HCLnfsd** daemon is available at ftp://ftp.hummingbird.com/pub/maestro/hclnfsd/. There is a version available for most popular UNIX operating systems.

4.2 User IDs When More Than One UNIX Server is On Site

When there is more than one UNIX server on site for which you want to establish UNIX connectivity, try to create the same user name password (for example, **ARAXI**) on both UNIX servers with the same password, UID, and GID. If the customer has an NIS server, you only need to create this user on the NIS server and set your default authority to be that NIS server.

4.3 When Installation of the Hummingbird Patch Fails

Symptom

If you don't have the original CD (or original location on the network) available when you install the patch, an error message appears asking you to point to the original location that you installed Hummingbird from.

Solutions

If locating the CD still doesn't work out, try to:

1. Uninstall Hummingbird by running the installation program off a CD that has the same version as was originally installed. The program will detect your installed copy of Hummingbird and will ask whether you want to add a module or remove Hummingbird.

   Note: Do *not* use Add/Remove Programs from Windows Control Panel.

2. Select **Remove Hummingbird**.

3. Restart the system.

4. Use the original Hummingbird NFS Maestro Client 7.1 CD to install the software and proceed with installing the patch after the restart.

4.4 Shared Volumes That Appear Empty

Symptom

When browsing the shared volume in Prinergy Workshop, the volume does not show any files or folders contained in it.

Solution

There are four possible solutions:

- **Map a drive**: If you fail to map a drive, sometimes Workshop will not show you the files located on that resource. Try mapping a drive as described in section 2.6.

- **Hummingbird registered user name**: Ensure that your registered Hummingbird NFS user name, which is used to access the NFS volume, is the same as the user name that the Prinergy service is running under.

- **Otherhosts**: Check the volume name definition for the **otherhosts** file.

- **Routing and subnet**: If the UNIX server has multiple Ethernet ports and IP addresses, try to use one on your subnet. If it has just one port and the IP address of this port is on a different subnet, ask the customer's UNIX administrator to move it onto the same subnet.