

XEROX®

System Administrator's Guide

WorkCentre

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Network Connectivity



Installation Steps

A1

Step 1. Connect one end of a Category 5 twisted pair cable to a live network drop. Connect the opposite end of the cable to the RJ-45 socket at the rear of the Device.

Step 2. Set the Device's power switch to ON and wait until the Main screen is displayed.

Note: The actual screen displayed as the Main screen is selectable. To determine the screen you would like displayed, press the Log In / Out button, enter the Administrator password (default of 11111), press System Settings, press System Settings again. Press Common Settings, press Screen/Button Settings, select Features Screen Default, touch Change Settings, make your selection and touch Save. Touch Close repeatedly, until Exit is displayed in the upper right corner of your screen, then touch Exit.

Step 3. Refer to the Settings List topic in this guide and print a Settings List using the instructions supplied.

Step 4. Referring to the Settings List, determine if the appropriate ports and protocols are enabled for your Network environment.

To support communicating with the Device's Internet Services, a series of internal Web Pages that enable remote configuration of operating settings, the TCP/IP protocol stack should be enabled. The Device should also have a valid IP Address, Subnet Mask, and Gateway displayed. If this is not the case, go to the **NOS Selection** section of this guide, locate the **TCP/IP Protocol Configuration** topic, and follow the instructions supplied.

Some Network Environment settings can only be configured through use of Internet Services. Also, **nearly all of the services, ports, and protocols that can be configured at the Device can be configured with Internet Services** running on a networked workstation. If Internet Services is shown as "disabled" on the Settings List, refer to the **Enable Internet Services (HTTP)** topic in this guide.

If you will be using SNMP Management software with this device, refer to the **SNMP Configuration** topic and follow the instructions supplied.

If you will be using the Parallel Port and wish to view or change its configuration, refer to the **Parallel Port Configuration** topic and follow the instructions supplied.

Step 5. Go to the NOS Selection section of this guide, then select your Network Operating System for Device installation instructions specific to your network environment. If you will be installing the Device in a Client/Server environment, make sure to have your Server's Operating System Manual available to refer to when required.

Step 6. Go to the **Print Drivers** section of this guide for the instructions required to set up individual desktop workstations to communicate with the Device.

Step 7. If you have purchased optional features for your Device, such as Scanning to the Device's Hard Drive, go to the **Options** section of this guide for configuration instructions.

Note:

For comprehensive information on the use of Internet Services as a browser-based, workstation tool for configuring your Device, go to the Internet Services section of this guide and click on relevant topics from the menu list.

Settings List

A6

To print a Settings List, with the Device switched ON, perform the following steps:

1. Press the **Machine Status button**.
2. Press the **Billing Meter/Print Report Tab**.
3. Press the **Print Report/List button**.
4. Press the **Copy Mode Settings button**.
5. Press the **Settings List button**.
6. Press the large, green, **Start button**, located to the immediate right of the Control Panel's numeric keypad.
7. The printing process will be graphically displayed on the touch screen. Upon receipt of the Settings List, note that the multi-page print is formatted into two columns with horizontal ruled lines indicating four distinct data display areas on the print. **The first area displays System Settings. The second area displays Copy Mode Settings. The third area displays Print Mode Settings. The fourth area displays Communication Settings.**

Ethernet Speed Setting

A2

The Device's Ethernet Interface has speed settings of **Auto** (10 BASE-T/100 BASE-TX), **100 BASE-TX** (Half or Full Duplex), and **10 BASE-T** (Half or Full Duplex). By default the Ethernet Port Configuration will be set to **Auto**.

To Change the Network Speed

Go to your Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Protocol Settings button**.
8. When the Protocol Settings menu displays, press the selection line labeled **Ethernet Setting**.
9. Press the **Change Settings button**.
10. On the Ethernet Setting screen note which one of the buttons is highlighted as the current setting for Ethernet speed. The available settings are Auto (10 BASE-T/100 BASE-TX), 100 BASE-TX (Half or Full Duplex), and 10 BASE-T (Half or Full Duplex). The default setting is Auto.
11. To change settings, press your setting of choice, then click the **Save** button.
12. To exit the Ethernet Setting screen, without making any changes, click the **Cancel** button.
13. To exit the Protocol Settings menu, returning to the Device's Main screen, press the rectangular **Close** button. Next, press the rectangular **Close** button in the upper right corner of the Network Settings screen. Press the rectangular **Close** button in the upper right corner of the System Settings screen. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.
14. Note that if you changed any settings in the Protocol Settings menu, the Device will automatically reboot to register and enable your new settings.

Enable Internet Services (HTTP)

A9

Internet Services are a series of Web (HTML) Pages located within the Device enabling network communication settings to be conveniently configured from a web browser running on a remotely located workstation.

*Note: If Authentication is enabled, as stated in the **Security – Authentication (by Auditron Administration)** topic in the **Options** section of this guide, you will have to supply the Administrator User Name and Password when first accessing Internet Services, rather than supplying these credentials after configuring individual features with Internet Services.*

For further details on the many functions provided by the Internet Services Web Pages, refer to the **Internet Services** section of this guide.

To access Internet Services Settings at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. When the Port Settings menu displays, press the down arrow key to view additional selections.
9. Press the **Internet Services (HTTP)** selection line.
10. Press the **Change Settings** button in the lower right corner of the Port Settings menu screen.
11. When the Internet Services (HTTP) menu displays, note that you have two settings available for selection. The Port Settings menu selections are **Port Status** and **Internet Services Port Number**. After pressing the selection line, to access available settings press the Change Settings button in the lower right corner of the touch screen.

Internet Services (HTTP) Enablement

1. Press the selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Port Status screen, note which of the two buttons is highlighted as the current setting for Internet Services Enablement. The available settings are Enabled or Disabled. In order to use Internet Services, this setting **MUST** be enabled.
4. To change settings, press your setting of choice, then press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Internet Services Port Number

1. Press the selection line labeled **Port Number**.
2. Press the **Change Settings** button.
3. On the Port Number screen, use the supplied keypad to enter the appropriate port number (default of 80).
4. To change settings, press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Exiting the Internet Services Selection Menu

To exit the Internet Service Selection Menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

Exiting the Port Settings Menu and returning to the Device's Main Menu

6. To exit the Port Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
7. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
8. Press the rectangular **Close** button in the upper right corner of the System Settings screen.
9. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

Proxy Server Settings

To use the Web Service button on the machine (if available), which enables the machine to access HTTP file servers on the Internet, you need to enter your Proxy Server information as described here.

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Select **Proxy Server Settings** in the list of hot links.
4. Place a checkmark in the **Use Proxy Server** checkbox.
5. From the **Proxy Setup** drop-down menu, select either Same Proxy for All Protocols, or Different Proxy for each Protocol, depending upon your Proxy Server setup.
6. In the **Addresses to Bypass Proxy Server** box, enter in up to 1024 characters of IP addresses, fully qualified host names, or wildcard host names (such as *.eng), separated by semicolons. Functioning like the local address exception list in a typical web browser, these addresses will be permitted to bypass the Proxy Server.
7. For the **HTTP or HTTPS Server Names**, provide a name of up to 255 characters in length for one or both of these Proxy Servers. A fully qualified domain name or IP address can be used. **Note:** Make sure that DNS is enabled as stated in the TCP/IP Protocol Configuration topic in the NOS Selection section of this guide.
8. Leave the **Port Number** set to 8080 (the IANA recognized proxy port) unless you are using a different port number. If you are using a different port number, enter it in the available box.
9. Check the **Authentication** box if client authentication is required for the Proxy Server.
10. Enter the **Login Name** for access to the proxy server. Up to 32 characters can be entered.
11. Enter the **Password** for access to the proxy server. Up to 32 characters can be entered.
12. Click **Apply**.
13. Enter the System Administrator user ID and password when prompted and click **OK**.

Parallel Port Configuration

A7

To view or change the settings of the Device's parallel port, perform the following steps:

Note: You must have purchased the Parallel (1284) Printing kit and installed the supplied hardware before you can configure this port.

To access Parallel Port Settings at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu display.
8. Press the line labeled **Parallel** on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.
10. When the Parallel Port selections menu displays, note that you have a choice of setting selections by numbered horizontal lines, with the current status of each setting shown. The up and down arrow keys provide access to additional selections and return you to the current selections display. The Close button in the upper right corner of the screen returns you to the Port Settings menu. After pressing a horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

Port Status (Parallel Port Enablement)

1. On the Parallel Port selections menu, press the selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Parallel Port Status screen, note which of the two buttons is highlighted as the current setting for Parallel Port Enablement. The available settings are Enabled or Disabled.
4. To change settings, press your setting of choice, then click the **Save** button on the touch screen.
5. To exit the screen, without making any changes, click the **Cancel** button on the touch screen.

Print Mode

1. On the Parallel Port selections menu, press the selection line labeled **Print Mode**.
2. Press the **Change Settings** button.
3. On the settings screen, note which one of the displayed buttons is highlighted as the current setting for Parallel Print Mode. This setting informs the Controller of the Page Description Language (PDL) being used by your print jobs. The available settings are Auto (default), PostScript, HP-GL/2, PCL, and TIFF. **Auto** enables the Controller to automatically detect and select the appropriate PDL.
4. To change settings, press your selection of choice, then click the **Save** button on the touch screen.
5. To exit the screen, without making any changes, click the **Cancel** button on the touch screen.

PJL (Printer Job Language)Setting

1. On the Parallel Port selections menu, press the selection line labeled **PJL**.
2. Press the **Change Settings** button.
3. On the settings screen, note which of the two buttons is highlighted as the current setting for Job Control Language. This is the setting that enables the Controller's job processing parameters to be modified by HP PJL. The available settings are Enabled or Disabled.
4. To change settings, press your setting of choice, then click the **Save** button on the touch screen.
5. To exit the screen, without making any changes, click the **Cancel** button on the touch screen.

Auto Eject time (Parallel Port Timeout)

1. On the Parallel Port selections menu, press the selection line labeled **Auto Eject Time**.
2. Press the **Change Settings** button.
3. On the settings screen, note the current display in seconds for the Parallel Port Timeout. This is the length of time that the Controller will wait for an end of job command before printing the current job. Up and down selection arrows are provided for modification of the timeout value in the increments shown.
4. To change settings, use the up or down selection arrow, then click the **Save** button on the touch screen.
5. To exit the screen, without making any changes, click the **Cancel** button on the touch screen.

Bi-Directional Communications

1. Select the down arrow on the screen to see this setting.
2. On the Parallel Port selections menu, press the selection line labeled **Bi-directional communications**.
3. Press the **Change Settings** button.
4. On the settings screen, note which of the two buttons is highlighted as the current setting for Bi-Directional Communications. The available settings are Enabled or Disabled. To support high speed, bi-directional parallel communications, select the Enabled setting.
5. To change settings, press your setting of choice, then click the **Save** button on the touch screen.
6. To exit the screen, without making any changes, click the **Cancel** button on the touch screen.

Input to Prime

1. Select the down arrow on the screen to see this selection.
2. On the Parallel Port selections menu, press the selection line labeled **Input Prime**.
3. On the settings screen, note which of the two buttons is highlighted as the current setting for Parallel Input to Prime. The available settings are Enabled or Disabled. In support of bi-directional communications, input to prime enables or disables the communication of a control signal over the parallel port (which is client (workstation) dependent). When in doubt, select the Enabled setting.
4. To change settings, press the setting of choice, then click the **Save** button on the touch screen.
5. To exit the screen, without making any changes, click the **Cancel** button on the touch screen.

Exiting the Parallel Port Selections Menu

To exit the Parallel Port Selections Menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

Exiting the Port Settings Menu and returning to the Device's Main Menu

1. To exit the Port Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Ports Menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
3. Press the rectangular **Close** button in the upper right corner of the System Settings screen.
4. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

SNMP Configuration

A8

SNMP (Simple Network Management Protocol) provides a method to remotely monitor and diagnose device performance on the network. Once SNMP has been enabled at the device, SNMP Management software, running on a host computer connected to the network, polls the device's agents for operating information and responds to traps from the device regarding specific events. Examples of such events might be notifications from the device that it is low on toner, or low on paper.

To view or change the Device's SNMP setting, perform the following steps:

To access SNMP Settings at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. When the Port Settings menu displays, press the **SNMP** selection line.
9. Press the **Change Settings** button in the lower right corner of the Port Settings menu screen.
10. When the SNMP selection menu displays, note that you have only one selection available on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings menu. After pressing the selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

Port Status (SNMP Enablement)

1. On the SNMP selection menu, press the selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Port Status screen, note which of the two buttons is highlighted as the current setting for SNMP Enablement. The available settings are Enabled or Disabled. For SNMP to function, it must be set to Enabled.
4. To change settings, press your setting of choice, then press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Exiting the SNMP Selection Menu

To exit the SNMP selection menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

Exiting the Port Settings Menu and returning to the Device's Main Menu

6. To exit the Port Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
7. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
8. Press the rectangular **Close** button in the upper right corner of the System Settings screen.
9. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

Configuring SNMP Community Names with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SNMP** in the directory tree.
5. Enter a name for the **Community Name (Read-Only)**. This is the password for SNMP GET requests from the SNMP Manager to the Agent in the Device.
6. Enter a name for the **Community Name (Read-Write)**. This is the password for SNMP SET requests from the SNMP Manager to the Agent in the Device.
7. **Caution:** If you change the GET and/or SET Community Names, you must also change the names in all network applications that are communicating by SNMP with this Device.
8. Enter a name for the **Community Name (Trap Notification)**. This is the default password for SNMP TRAPS sent from the device to the Manager by SNMP.
9. Optionally enter the System Administrator's name for packet identification purposes.
10. Click **Apply** to accept the changes, or **Undo** to return the settings to their previous values.

Note: Changes to settings will not be applied until you restart the Device.

Changing the Administrator Password

A10

There are two Administrator Passwords that control access to the Device's feature settings. One password is a numeric password that controls access through the Device's Control Panel. The second password is an alphanumeric password that controls access through the Device's Internet Services (embedded HTTP server application residing in the Device).

To Change the Numeric Password on the Device's Control Panel

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. This is the factory default "password."
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Administrator Settings button**.
6. Press the **System Administrator Login ID button**.
7. On the Login ID screen, select the **On** button.
Note: If you select the Off button, you cannot access the password setting or password changing functions.
8. Press the keyboard button, and use the displayed keyboard to enter in a new numeric Login ID ranging from 1 to 32 characters in length.
9. Press the **Save** button.
10. Press the keyboard button, and use the displayed keyboard to enter in your new numeric Login ID a second time and press **Save** again.
11. Press **Save** on the Login ID screen to save the new Login ID.
12. To exit the System Administrator Settings screen, press the rectangular **Close** button in the upper right corner of the screen.
13. Press the **Exit** button and the Device's Main screen should now be displayed.

To Change the Alphanumeric Password used by Internet Services

*Note: If Authentication is enabled, as stated in the **Security – Authentication (by Auditron Administration)** topic in the **Options** section of this guide, you will have to supply the Administrator User Name and Password when first accessing Internet Services, rather than supplying these credentials after configuring individual features with Internet Services.*

1. Press the **Log In / Out button** on the Device's Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. This is the factory default "password."
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Administrator Settings button**.
6. Press the **System Administrator's Password button**.
7. Press the keyboard button, and use the displayed keyboard to enter in a new alphanumeric password ranging from 4 to 12 characters in length.
8. Press the **Save** button.
9. Press the keyboard button, and use the displayed keyboard to enter in your new password a second time and press **Save** again.
10. Press **Save** on the Password screen to save the new password.
11. To exit the System Administrator Settings screen, press the rectangular **Close** button in the upper right corner of the screen.
12. Press the **Exit** button and the Device's Main screen should now be displayed.

NOS Selection

TCP/IP Protocol Configuration

B1

To view or change the settings of the Device's TCP/IP Protocol Configuration, perform the following steps:

To access the TCP/IP Protocol Settings at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Protocol Settings button**.
8. When the Protocol Settings menu displays, note that with the exception of selection one (Ethernet Speed), the five additional selections provide directions that are specific to TCP/IP address settings. Choose your setting of interest by pressing the numbered, horizontal selection line on the touch screen. Note that the current status of each setting is shown on the applicable line. After pressing a selection line, to access available settings press the **Change Settings** button in the lower right corner of the touch screen.

Ethernet Setting (Ethernet Speed)

9. On the Protocol Settings menu, press the selection line labeled **Ethernet Setting**.
10. Press the **Change Settings** button.
11. On the settings screen, note which one of the buttons is highlighted as the current setting for Ethernet Speed. The available settings are **Auto** (10 BASE-T/100 BASE-TX), **100 BASE-TX** (Half or Full Duplex), and **10 BASE-T** (Half or Full Duplex). By default the Ethernet Port Configuration will be set to **Auto**.
12. To change settings, press your setting of choice, then press the **Save** button.
13. To exit the screen, without making any changes, press the **Cancel** button.

Get IP Address (TCP/IP Addressing Method)

14. On the Protocol Settings menu, press the selection line labeled TCP/IP - Get IP Address.
15. Press the Change Settings button.
16. On the settings screen, note which one of the buttons is highlighted as the current setting for the TCP/IP Addressing method. The available settings are DHCP, BOOTP, RARP, DHCP/Autonet, and Manual. DHCP/Autonet is the factory default setting.
17. To change settings, press your selection of choice, then press the **Save** button.
18. To exit the screen, without making any changes, press the Cancel button.

IP Address

1. Used for static IP Addressing (with "Manual" selected as your addressing method), on the Protocol Settings menu, press the selection line labeled **TCP/IP - IP Address**. Note that the IP Address may be viewed, but not changed, with dynamic addressing enabled.
2. Press the **Change Settings** button.
3. On the settings screen, use the rectangular **Next** key, together with the numeric keypad of the Control Panel, to enter in the appropriate IP Address.
4. To save settings, press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Subnet Mask

1. Used for static IP Addressing (with "Manual" selected as your addressing method), on the Protocol Settings menu, press the selection line labeled **TCP/IP - Subnet Mask**. Note that the Subnet Mask may be viewed, but not changed, with dynamic addressing enabled.
2. Press the **Change Settings** button.
3. On the settings screen, use the rectangular **Next** key, together with the numeric keypad of the Control Panel, to enter in the appropriate Subnet Mask.
4. To save settings, press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Gateway Address

1. Used for static IP Addressing (with "Manual" selected as your addressing method), on the Protocol Settings menu, press the selection line labeled **TCP/IP - Gateway Address**. Note that the Gateway address may be viewed, but not changed, with dynamic addressing enabled.
2. Press the **Change Settings** button.
3. On the settings screen, use the rectangular **Next** key, together with the numeric keypad of the Control Panel, to enter in the appropriate Gateway.
4. To save settings, press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

IP Filter (IP Address Restriction)

1. Use your workstation's web browser to access the Internet Services (web pages) residing on the Device to set the IP Address or Addresses to use with this feature BEFORE enabling the feature, either here or with Internet Services. This will prevent unintentionally locking yourself out from communicating with the Device from your own IP address. For full instructions, refer to the **Restricting Device Access** topic in the **Internet Services** section of this guide.
2. In the Protocol Settings menu, press the selection line labeled **TCP/IP - IP Filter**.
3. Press the **Change Settings** button.
4. On the settings screen, note which of the two buttons is highlighted as the current setting for IP Address restriction. The available settings are **On** or **Off**. **Off** is the factory default setting.
5. To change settings, press your setting of choice, then press the **Save** button.
6. To return to the Protocol Settings menu after changing settings, press the **Save** button.
7. If you prefer to exit the settings screen, without making any changes, press the **Cancel** button.

Exiting the Protocol Settings Menu and returning to the Device's Main Menu

1. To exit the Protocol Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Protocol Settings menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
3. Press the rectangular **Close** button in the upper right corner of the System Settings button.
4. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Protocol Settings menu, the Device will automatically reboot to register and enable your new settings.

TCP/IP LPD Enablement

B13

To support TCP/IP printing through the workstation's LPR port in the case of Windows NT4, 2000, or XP, or through a print utility in the case of Windows 95/98/ME, the LPD (Line Printer Daemon) MUST be enabled at the device.

To view or change the Device's LPD setting, perform the following steps:

To access LPD Settings at the Device

1. Press the rectangular **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button**.
8. When the Port Settings menu displays, press the selection line labeled **LPD**.
9. Press the **Change Settings** button in the lower right corner of the Port Settings menu screen.
10. When the LPD selections menu displays, note that you have a choice of setting selections by numbered horizontal lines, with the current status of each setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings menu. After pressing the selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

Port Status (LPD Enablement)

1. On the LPD selections menu, press the selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the LPD Port Status screen, note which of the two buttons is highlighted as the current setting for LPD Enablement. The available settings are Enabled or Disabled. For the LPD to function, it must be set to Enabled.
4. To change settings, press your setting of choice, then press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

LPD Port Number

1. On the LPD selections menu, press the selection line labeled **LPD Port Number**.
2. Press the **Change Settings** button.
3. Note the setting of **Port 515**, which is the recommended, default value. To change the setting, use the keypad displayed on screen.
4. To change settings, press your setting of choice, then press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Exiting the LPD Selections Menu

To exit the LPD selections menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

Exiting the Port Settings Menu and returning to the Device's Main Menu

1. To exit the Port Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
3. Press the rectangular **Close** button in the upper right corner of the System Settings screen.
4. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

TCP/IP Dynamic Addressing

B15

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **TCP/IP** in the directory tree
5. Review the available selections as displayed on your screen and explained in the **TCP/IP Configuration Selection List**, below.
6. Accept the default Host Name, or type in your own unique Host Name for this Device.
7. Select DHCP or BOOTP as your method for obtaining an IP Address.

CAUTION: Changing the IP address for the Device will affect NetBIOS/IP, LPR/LPD, FTP, SNMP, and Port 9100 printing. It will also interrupt the ability to communicate with the device using the Internet Services (series of web pages on the Device). When you change the Device's IP Address, make sure to print out a Settings List (as stated in this guide) so that you have a record of the TCP/IP addresses for use with workstations that need to communicate with the Device using TCP/IP.

DHCP TIP: When using DHCP, set a reasonably long Lease Time for the IP Address so that the Device can be shut down and serviced, when required, without being continuously assigned a new IP Address.

8. Determine the method to use to supply the DNS Server IP Addresses (to resolve Host Names with IP Addresses).
9. Determine whether or not Dynamic DNS should be enabled.
10. Determine the method to use to supply the WINS Server IP Address (to resolve Host Names with IP Addresses exclusively in an NT environment).

TCP/IP Configuration Selection List

As displayed on your screen, the following selections are available for TCP/IP Configuration.

Under the TCP/IP Subject Label

Host Name. The default entry assures a name that is unique to this device on the network.

Get IP Address. Use this drop-down menu to select the method to use to assign IP Addresses. Select Manual, DHCP, RARP, BOOTP, or DHCP/Autonet. Note that with the Autonet option selected, if a Windows 2000 client can't contact the DHCP server, it will assign itself an IP address from the 169.254.0.0 class B address space. This is also known as zero configuration, or Bonjour, networking.

Machine IP Address entry box. To be filled in manually ONLY when Manual addressing is selected.

Subnet Mask entry box. To be filled in manually ONLY when Manual addressing is selected.

Gateway Address entry box. To be filled in manually ONLY when Manual addressing is selected.

Under the DNS Subject Label

Get DNS Server Address check box. If enabled with a check mark, the Device will contact the DHCP Server for the IP Addresses of up to three DNS Servers. If unchecked, this information must be entered manually.

Three DNS Address boxes are supplied for the manual entry of DNS Server addresses.

DNS Domain Name. A text entry box is supplied for the entry of a DNS Domain Name.

Generate Domain Search List Automatically. A check box is provided for enabling automatic Domain searches.

Domain Names 1,2,3. Three text boxes are provided for the entry of Domains to search (for example, Xerox.com).

Connection Timeout. An entry box is provided for entering a Timeout for searches of Domains.

Dynamic DNS Update Box. If your DNS Server does not support dynamic IP address updates there is no need to enable this checkbox.

Under the WINS Server Subject Label

Get WINS Server Address check box. If enabled with a check mark, the Device will contact the DHCP Server for the IP Addresses of the Primary and Secondary WINS (Windows Internet Naming Service) Servers.

WINS Primary/Secondary Server IP Address Lines. Two IP Address lines, with entry boxes, are provided for manual entry of the WINS Primary and Secondary Server Addresses (when DHCP is not selected).

Under the IP Address List Subject Label

IP Filter Enablement Check box. If enabled with a check mark, access to the Device's services will be restricted to the list of IP Addresses and Subnet Masks specified by clicking the Edit button. If disabled (unchecked), host access to the Device is universal (unrestricted).

Edit button. When this button is clicked, a list of ten lines of IP Address and Subnet Mask entry boxes is displayed. Sometimes referred to as a "restriction list," this list is used to supply the IP Addresses and Subnet Masks of up to ten hosts (individual workstations) that are authorized to access the Device's services. All other hosts, not specified in this list, will be prevented from accessing the Device's services.

Note: Changes to TCP/IP settings will not be applied until you restart (reboot) the Device.

Configure Port 9100 (Raw Printing)

B8

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
 2. Click the **Properties** Tab.
 3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
 4. Select **Port 9100** in the directory tree. (1)
 5. The available selections include:
 - Port Number, with a default value of 9100. This value typically does not need to be changed.
 - A TBCP Filter checkbox (displayed when PostScript is enabled). Click Help for an explanation of the use of this feature.
 - Connection Time-out Entry Box.
 6. Enter a **Time Out** value for jobs being sent to the Device through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
 7. Click the **Apply** button to accept changes, or the **Undo** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Device.
- (1) Note: If Port 9100 is NOT displayed in the Properties Tab directory tree, click the **Port Status** hot link in the beginning list of hot links in the tree. In the Port Status table, use your mouse to place a check mark in the checkbox on the Port 9100 line. Click the **Apply** button, then click the **Reboot** button (always available on the Status Tab) to remotely reboot the Device.

Before You Start

1. Print a **Settings List** as stated in the **Network Connectivity** section of this guide.
2. On the Settings List, **verify that SMB is enabled**. Also, verify that the default name of the NetBEUI workgroup is "Workgroup" and that the Device has a unique name (that is, a name not the same as any other device in your workgroup). To enable SMB, if required, follow the procedure below. To modify the name of your Workgroup, or Device's name within your workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Device as described below.

Enabling the SMB Setting at the Device, if required

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. When the Port Settings menu displays, press the **SMB** selection line.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.

10. When the SMB selection menu displays, note that you have only one setting available on a single, numbered horizontal line. Press this selection line.
11. Press the **Change Settings** button.
12. On the SMB Port Status screen, note which of the two buttons is highlighted as the current setting for SMB Enablement. The available settings are Enabled or Disabled. To enable SMB at the device, select the **Enabled** setting.
13. Press the **Save** button on the touch screen, which returns you to the SMB selection menu. (To exit the screen, without making changes, click the Cancel button.)
14. Exit the SMB selection menu and return to the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
16. Exit the Network Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the System Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen to have the device reboot and enable your SMB setting.

Configuring Workgroup Name or Device Name with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree
5. The available selections include:
 - A text box indicating Workgroup name.
 - A text box indicating the SMB Host name.
 - An entry box for the maximum number of connections allowed, labeled Maximum Sessions.
 - A TBCP Filter checkbox (displayed when PostScript is enabled). Click Help for an explanation of the use of this feature.
 - An enabling checkbox for Auto Driver Download, enabling the Device to push a driver to a client.
 - An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).
 - An enabling checkbox for Auto Master Mode. When the master browser for the workgroup cannot be found, if this box is checked, this host will become the master browser.
 - An enabling checkbox for Password Encryption (during SMB transmission).
6. Accept the default value, or enter a value from 3 to 10, for maximum number of connections allowed in **Maximum Sessions**.
7. Accept the **Workgroup name** shown, or enter in your own workgroup name.
8. Type the **SMB Host Name** or accept the name shown.
9. Click the **Apply** button, then click the **Reboot** button to reboot the device and apply setting changes.

Before You Start

1. Print a **Settings List** as stated in the **Network Connectivity** section of this guide.
2. Referring to the Settings List, **verify that SMB is enabled**. To enable SMB at the Device, if required, follow the procedure below.
3. Referring to the Settings List, **verify that DNS (or WINS, if using only a Windows NT network) is enabled**. The use of Naming Servers is REQUIRED to resolve NetBIOS device names to IP addresses for packet routing over the TCP/IP network.
4. To enable the Device to communicate with the Naming Servers, refer to the instructions supplied in the topic "TCP/IP Dynamic Addressing", located in the **NOS Selection** section of this guide.
5. When using WINS or DNS, be sure to refer to your Server Operating System documentation for the appropriate procedure to use to enable NetBIOS name to IP address resolution on the Server.

Enabling the SMB Setting at the Device, if required

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.

7. Press the **Port Settings button** to access the Port Settings menu.
8. When the Port Settings menu displays, press the **SMB** selection line.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.
10. When the SMB selection menu displays, note that you have only one setting available on a single, numbered horizontal line. Press this selection line.
11. Press the **Change Settings** button.
12. On the SMB Port Status screen, note which of the two buttons is highlighted as the current setting for SMB Enablement. The available settings are Enabled or Disabled. To enable SMB at the device, select the **Enabled** setting.
13. Click the **Save** button on the touch screen, which returns you to the SMB selection menu. (To exit the screen, without making changes, click the Cancel button.)
14. Exit the SMB selection menu and return to the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
16. Exit the Network Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the System Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen to have the device reboot and enable your SMB setting.

Viewing or Configuring the SMB Host Name with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree.
5. The available selections include:
 - A text box indicating Workgroup name.
 - A text box indicating the SMB Host name.
 - An entry box for the maximum number of connections allowed, labeled Maximum Sessions.
 - A TBCP Filter checkbox (displayed when PostScript is enabled). Click Help for an explanation of the use of this feature.
 - An enabling checkbox for Auto Driver Download, enabling the Device to push a driver to a client.
 - An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).
 - An enabling checkbox for Auto Master Mode. When the master browser for the workgroup cannot be found, if this box is checked, this host will become the master browser.
 - An enabling checkbox for Password Encryption (during SMB transmission).
6. Either accept the default **SMB Host Name**, which is automatically built by the Device to assure the name's uniqueness, or enter in your preferred name. Note that this will be the NetBIOS name that is resolved by the Naming Server (DNS or WINS) to an IP Address for the Device.
7. To apply setting changes, click the **Apply** button, then click the **Reboot** button to reboot the device. To exit without making any changes, click the **Undo** button.

DNS/WINS NetBIOS Name Resolution

To use the Device's NetBIOS name over the TCP/IP Network, the DNS and WINS Servers MUST be configured for NetBIOS name to IP address resolution. Also, make sure that the Device is informed of the addresses of the DNS/WINS Servers, using the instructions supplied under the **Configure TCP/IP Settings** procedure in the **Internet Services** section of this guide.

To Set Up a Workstation to Print Directly to the Device

Refer to the set up instructions supplied for **NetBIOS over IP Peer to Peer Printing** in the **Print Drivers** section of this guide or, if you are an EXPERIENCED SYSTEM ADMINISTRATOR, perform the following steps:

1. On NT4 workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.
2. On 95/98/Me workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup.
3. Create an **LPR port** on your NT4 Operating System. Use a Print Utility (Spooler) program (such as ACITS) to create an LPR port on the Windows 95/98/Me workstation.
4. When prompted for the "Name or address of server providing lpd" enter in the Device's **SMB Host Name** as seen on the Device's Settings List.
5. When prompted for a queue name, enter in your preference of an easily-identified name for this Device.
6. Install the Print driver on your workstation and, when prompted to select a port to print through, select the LPR port that you just created.
7. Print a Test Print to verify successful communications with the device.

To Set Up an NT Server to Queue Jobs to the Device

1. Make sure that the TCP/IP protocol and Microsoft TCP/IP Printing Services are enabled.
2. Install the Print Driver, select **Local Port** and create an **LPR port**.
3. When prompted for the port name, enter in the Device's **SMB Host Name** (WINS environment), or **fully qualified domain name** (SMB Host Name.Domain Name, in a DNS environment), or **IP Address** (if static). The Queue text box can be left blank.
4. Turn on **Sharing** and enter in a Share Name that can be used by network users to identify the device in the Server's list of available network printers.
5. To set up the individual workstations, use "Add printer," "Network Printer," and select the Server and Device's Share Name from the list.
6. Print a Test Print to verify that you are successfully communicating with the device through the Server.

Enable the NetWare Port at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. Press the **NetWare** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.
10. When the NetWare selection menu displays, note that you have only one setting available on a single, numbered horizontal line. Press this selection labeled **Port Status**.

11. Press the **Change Settings** button.
12. On the NetWare Port Status screen, note which of the two buttons is highlighted as the current setting for NetWare Port Enablement. The available settings are Enabled or Disabled. To enable NetWare at the Device, select the Enabled setting.
13. Press the **Save** button (upper right-hand button) on the touch screen, which returns you to the NetWare selection menu.
14. Exit the NetWare selection menu and return to the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
16. Exit the Network Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the System Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen to have the device reboot and enable your NetWare setting.

Set Up Printer Objects on the Server

1. Set up a Print Server, Print Queue, and Printer in the appropriate Context (NDS Tree) using NWADMIN or PCONSOLE. Refer to the documentation supplied by Novell (www.novell.com) to complete this task.

Note: Record precisely (observe upper and lower case, dot notation etc.) the following: the NDS Tree, NDS Context Name, frame type, Print Server Name, and the Print Server password, that was assigned. If your device services queues on multiple file servers, the Print Server name must be the same on all file servers and the Print Server password must be the same on all file servers.

Configure NetWare Settings using Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree.
5. The available selections include:
 - A Host Name (Print Server) Text box. (Use this name to create the Print Server on the NetWare Server.)
 - An Active Mode selection box for Directory (NDS) or Bindery.
 - A File Server name entry box (Bindery).
 - A Polling Interval Entry box for Queue Polling Interval (1 - 1000 seconds).
 - A Number of Search Entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).
 - Two Password text boxes for logging into the NetWare Server.
 - A TBCP Filter checkbox (displayed when PostScript is enabled). Click Help for an explanation of the use of this feature.
 - Under the NDS Subject Label there is a text box for NDS Tree, followed by one for NDS Context.
 - A Frame Selection box, with a default of Auto sensing. Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).
 - A display of the Device's Network (MAC) address.
 - A Service Location Protocol (SLP) Active Search Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.
6. Either accept the default Host (Print Server) Name or type in a new name that matches the name used on the Server.

7. Select Directory (NDS) as your Mode.
8. Enter in a polling rate for **Polling Interval**.
9. Enter in a SAP (service advertising protocol) frequency, or set **SAP frequency** to zero (off).
10. Type a **Password** for the Device to log into the NetWare Server, and type it a second time for confirmation.
11. For NetWare NDS (NetWare Directory Services), type a directory tree name and context (typeful name in the NDS environment). Note: Since there is no Browse function, you **MUST** manually enter in this information. For example: O=xerox.OU=engineering.
12. For Frame Selection, if in doubt, leave the setting at its Auto sensing default value.
13. Click the **Apply** button, then click the **Reboot button** to reboot the Device and apply setting changes.

Enable the NetWare Port at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. Press the **NetWare** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.
10. When the NetWare selection menu displays, note that you have only one setting available on a single, numbered horizontal line. Press this selection labeled **Port Status**.

11. Press the **Change Settings** button.
12. On the NetWare Port Status screen, note which of the two buttons is highlighted as the current setting for NetWare Port Enablement. The available settings are Enabled or Disabled. To enable NetWare at the Device, select the Enabled setting.
13. Press the **Save** button (upper right-hand button) on the touch screen, which returns you to the NetWare selection menu.
14. Exit the NetWare selection menu and return to the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the touch screen.
15. Exit the Port Settings menu by pressing the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
16. Exit the Network Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
17. Exit the System Settings screen by pressing the rectangular **Close** button in the upper right corner of the screen.
18. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen to have the device reboot and enable your NetWare setting.

Set Up a Print Server, Queue, and Name on the Primary Server

1. Set up a Print Server, Queue, and Printer Configuration on the Primary Server using PCONSOLE. Refer to the documentation supplied by Novell (www.novell.com) to complete this task.

Note: Record precisely (observe upper and lower case, punctuation etc.) the following: the Primary Server name, Frame type used, Print Server name, Print Server password, and the Queue name assigned. If your device services queues on multiple file servers, the Print Server name must be the same on all file servers and the Print Server password must be the same on all file servers.

Note regarding NetWare 4 (bindery): You can set up the printer on the NetWare 4 Server by performing the following steps:

2. Create a Bindery Queue
3. Create a Bindery Print Server Name
4. Assign Print Server to Queue.
5. Access Quick setup and change Printer Location from Manual Load to Auto Load (Local)
6. Continue following setup instructions for Internet Services.

Configure NetWare Settings using Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree.
5. The available selections include:
 - A Host Name (Print Server Name) Text box. Use this name in the Server setup of the Print Server using PCONSOLE.
 - An Active Mode selection box for Directory (NDS) or Bindery.
 - A File Server name entry box (Bindery).
 - A Polling Interval Entry box for Queue Polling Interval (1 - 1000 seconds).
 - A Number of Search Entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).
 - Two Password text boxes for logging into the NetWare Server.
 - A TBCP Filter checkbox (displayed when PostScript is enabled). Click Help for an explanation of the use of this feature.
 - Under the NDS Subject Label there is a text box for NDS Tree, followed by one for NDS Context.
 - A Frame Selection box, with a default of Auto sensing. Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).
 - A display of the Device's Network (MAC) address.
 - A Service Location Protocol (SLP) Active Search Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.
6. Either accept the default Device (Print Server) Name or type in a new name that matches the name used on the Server.
7. Select Bindery as your network Mode.
8. Provide the name of the Primary Server.
9. Enter in a polling rate for **Polling Interval**.
10. Enter in a SAP (service advertising protocol) frequency, or set **SAP frequency** to zero (off).
11. Type a **Password** for the Device to log into the NetWare Server, and type it a second time for confirmation.
12. For Frame Selection, if in doubt, leave the setting at its Auto sensing default value.
13. Click the **Apply** button, then click the **Reboot button** to reboot the Device and apply setting changes.

IPP Configuration

B14

The Internet Printing Protocol provides a convenient way to print over the Internet or Intranet using the device's IP address. To support this type of printing, make sure that Port 9100 is enabled at the device as stated in the Note at the bottom of the **Configure Port 9100** procedure, in the **Internet Services** section of this guide. Specifically, click the Port Status hot link on the Properties Tab of Internet Services and make sure that the check box on the Port 9100 line is checked. The Internet Printing Protocol must also be enabled at the device, and the Internet Print Service must be available and installed on the individual desktop workstation's version of Windows. IPP support is already built into Windows 2000 and XP. For other desktop operating systems it is available as a download from Microsoft at www.microsoft.com. The final step is to install the IPP print driver, which is covered in the **Print Drivers** section of this guide.

To access IPP Settings at the Device

1. Press the rectangular **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. Press the **IPP** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.
10. When the IPP selection menu displays, note that you have two selections available on numbered horizontal lines. The first selection is Port Status. The second is IPP – Added Port Number. The Close button in the upper right corner of the screen returns you to the Port Settings menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

Port Status (IPP Enablement)

1. On the IPP selection menu, press the selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the IPP Port Status screen, note which of the two buttons is highlighted as the current setting for IPP Enablement. The available settings are Enabled or Disabled. To print with IPP, this setting must be Enabled.
4. To change settings, press your setting of choice, then press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

IPP – Added Port Number

1. On the IPP Selection menu, press the selection line labeled **IPP – Added Port Number**.
2. Press the **Change Settings** button.
3. Use the displayed keypad to add a Port Number, such as 80 (the displayed default for HTTP).
4. To save the setting, press **Save**.
5. To exit the screen, without making any changes, press **Cancel**.

Exiting the IPP Selection Menu

To exit the IPP selection menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

Exiting the Port Settings Menu and returning to the Device's Main Menu

1. To exit the Port Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
3. Press the rectangular **Close** button in the upper right corner of the System Settings screen .
4. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

Configuring IPP Settings with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **IPP** in the directory tree.
5. The available selections include:

Port Number, with a default value of 631. This is the port number assigned by IANA (Internet Assigned Numbers Authority). It does not need to be changed.

Additional Port Number Entry box.

A TBCP Filter checkbox (displayed when PostScript is enabled) Click Help for an explanation of the use of this feature..

Administrator Mode Checkbox. This is disabled by default. Consult the On-Line Help for use of this feature.

DNS Enablement Checkbox.

Connection Timeout Entry Box.

6. Verify that the **DNS** Enablement Checkbox is checked (enabled) by default. If enabled, the DNS Server will be available to resolve Host Names to IP Addresses, in support of printing with IPP.
7. Enter a **Time Out** value for jobs being sent to the Device through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
8. Click the **Apply** button to accept changes, or the **Undo** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Device.

EtherTalk (AppleTalk) Configuration

B7

The EtherTalk Protocol enables workstation to Device communications over the EtherTalk (AppleTalk) network.

To access EtherTalk Settings at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. Press the **EtherTalk** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.
10. When the EtherTalk selection menu displays, note that you have only one selection available on a single, numbered horizontal line, with the current status of this setting shown. The Close button in the upper right corner of the screen returns you to the Port Settings menu. After pressing the horizontal line selection, to access available settings press the Change Settings button in the lower right corner of the touch screen.

Port Status (EtherTalk Enablement)

1. On the EtherTalk selection menu, press the selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Port Status screen, note which of the two buttons is highlighted as the current setting for EtherTalk Enablement. The available settings are Enabled or Disabled. To print with EtherTalk, this setting must be Enabled.
4. To change settings, press your setting of choice, then press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Exiting the EtherTalk Selection Menu

To exit the EtherTalk selection menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

Exiting the Port Settings Menu and returning to the Device's Main Menu

1. To exit the Port Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
3. Press the rectangular **Close** button in the upper right corner of the System Settings screen .
4. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

Configuring EtherTalk Settings with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** Tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **AppleTalk** in the directory tree.
5. The available selections include:
 - Printer Name.
 - Zone Name.
6. Enter the name that you wish to assign to this Printer. This is the name that will appear in the Chooser.
7. Either accept the default zone of * which lets the closest router assign the Device to a zone, or assign the Device to a zone (with a 32 character naming limit).
8. Click the **Apply** button to accept changes, or the **Undo** button to return settings to their previous values. Note: Setting changes are not applied until you restart (reboot) the Device.

Print Drivers

TCP/IP Peer to Peer (LPR or Standard TCP/IP) Printing

D1

Windows 2000 Server\Professional & XP Professional Print Driver Installation

Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.

Verify that TCP/IP is installed in the workstation

On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the Properties button to verify or set up the method being used for TCP/IP addressing.

Verify that Print Services for Unix is installed in the workstation (see Note below)

Note: You can skip this step and proceed directly to "Adding the Printer to the Desktop," if you prefer printing through the "Standard TCP/IP Port" (Port 9100), rather than through an LPR port.

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings, Control Panel**, then double-click **Add/Remove Programs**. On the Windows XP desktop, click **Start, Control Panel**, then double click **Add or Remove Programs**.
2. Select **Add/Remove Windows Components**. On Windows 2000 Professional you will need to be logged in with Administrator rights to perform this function.
3. Select Other Network File and Print Services and click Details.
4. Check the box to select **Print Services for Unix**. Click **OK** and **Next**. You will need to supply the Operating System Installer disk, when prompted. Close the Add/Remove Programs window.

Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000 or XP, double-click **Add Printer**.
3. When the "Add Printer Wizard" screen displays, click **Next**.
4. Select **Local Printer** and deselect "Automatically detect and install my Plug and Play printer." Click **Next**.
5. Select **Create a new port** and choose **LPR** from the **Type** drop-down menu. (LPR becomes available when Print Services for Unix is installed, as above). Note: If you prefer to print raw data to Port 9100 on the Printer, you can alternatively choose **Standard TCP/IP Port**. Click **Next**.
6. When prompted, enter the **IP address** of the printer.
7. Enter a name for the print queue (such as **raw**). If you selected the Standard TCP/IP port, you can accept the default name provided by Windows. Click **Next**.
8. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print driver.
9. Select the **.INF** file, then click **Open**.
10. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
Note for PostScript Driver only:
*If your printer is equipped with an Advanced Office Finisher or a Professional Finisher, be sure to select the printer model name that includes a **C suffix** (for example, Xerox WorkCentre 7245 PS C).*
*If your printer is equipped with an Office Finisher or a Centre Tray, be sure to select the printer model name that includes **no suffix** (for example, Xerox WorkCentre 7245 PS).*
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. If the Printer Sharing Screen displays, select "Do not share this printer," unless the Printer is directly connected to your workstation and you wish to Share it with other network users. Click **Next**.
14. Select **Yes** to print a test page. Click **Next**.
15. Click **Finish**.

Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults, including enabling Bi-Directional Communication. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

Windows NT4 Workstation/Server Print Driver Installation

Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.

Verify that the TCP/IP Protocol and Printing Services are installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon and select Properties. Click on the Protocols tab and verify that the TCP/IP protocol has been loaded on the workstation.

Note: If the TCP/IP Protocol is not present in the Protocol list, click the Add button, select TCP/IP Protocol from the available list, and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.
3. Select the **Services** tab and verify that **Microsoft TCP/IP Printing** is loaded.

Note: If Microsoft TCP/IP Printing services are NOT loaded, click the Add button, select Microsoft TCP/IP Printing from the available list, and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the service from the Operating System installer disk for this workstation.

Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. Verify that **My Computer** is selected and click **Next**.
4. Click **Add Port**.
5. From the list that appears select **LPR Port**.
6. Click **New Port**.
7. Type in the IP address of the Printer for the "Name or address of server providing lpd." Type in the case-sensitive name of your Printer, or enter in the word **raw** for "Name of printer or print queue on that server." Select **OK**.
8. Select **Close**. The Wizard will return you to the previous dialog. Verify the new IP address you entered is in the list and correct.
9. The Port check box to the left of the address must be checked. If it is not, check it then select **Next**.
10. You will be prompted for a print driver. Select **Have Disk** and browse to the location of your print drivers.
11. Select the **.INF** file then click **Open**.
12. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
13. Select the model that corresponds to your Printer and click **Next**.
14. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
15. Select **Not Shared** unless the Printer is directly connected to your workstation and you wish to Share it with other network users. Click **Next**.
16. Select **Yes** to print a Test Page.
17. Select **Finish** and verify that the Test Page printed out at the Printer.

Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Windows 95/98/Me Workstation Print Driver Installation

Before you start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.

Verify that the TCP/IP Protocol is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Configuration** TAB and verify that the TCP/IP Protocol has been loaded.
4. Note: If the TCP/IP Protocol has NOT been loaded, click the **Add** button, select **TCP/IP Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
5. Click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Configuration window.
6. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically, and supply the appropriate Server address information.
7. If using Static TCP/IP Addressing, left mouse click on the radio button marked "Specify an IP Address" to enable the manual configuration option.
8. Enter in the required IP Address, Subnet Mask, and Gateway information for this workstation. For smaller networks, the Windows default values for Subnet Mask and Default Gateway may be applicable. Check with a QUALIFIED Network Administrator for Subnet Mask and Default Gateway requirements.
9. Click **OK**.

Add the Printer to the Windows 95/98/Me Desktop

LPR Port Creation

Note: As the ability to create an LPR Port is not included with Windows 95/98/Me Operating Systems, in order to create an LPR Port with these Operating Systems you need to install a Print Utility (Spooler) program on your workstation. One example of such a program is "DigiLPR." A second example is "ACITS LPR Remote Printing."

1. Install a Print Utility (Spooler) program on your workstation following the instructions that accompany the program.

Note: Depending upon the Print Utility you use, you may need to add a local printer and then "Add Port," or you may create the printer and port in one continuous installation process. Make sure to know the location of your driver files in case the Print Utility (Spooler) program calls for them. If the driver files are called for, the installation procedure will be very similar as that described below.

2. Use the Print Utility (Spooler) program to create an LPR Port on your workstation. Type in the IP address of the Printer for the "Name or address of server providing lpd." Type in the case-sensitive name of your Printer, or enter in the word **raw** for "Name of printer or print queue on that server."
3. Click the appropriate button (for example, Apply or OK) in your Print Utility (Spooler) program to save your settings and create the LPR Port.

Driver Installation

1. On the Windows desktop, use your mouse to select "Start," "Settings," and "Printers."
2. In the "Printers" Window, double click on **Add Printer**.
3. When the "Add Printer Wizard" Introductory screen displays, click **Next**.
4. Select the **Local Printer** radio button. Click **Next**.
5. When the "Manufacturers and Printers" window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
9. Select the Port that you previously created for use with this driver. Click **Next**.
10. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
11. Select **Yes** to print a Test Page.
12. Select **Finish** and verify that the Test Page printed out at the Printer.

Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Windows 95/98/Me and NT4 Workstation Print Driver Installation

Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that NetBEUI is enabled** as one of the supported protocols (TCP/IP may also be displayed). Verify that the **NetBEUI workgroup's default name is Workgroup**, or a valid, 15 character maximum, workgroup name. Also note the **Device's SMB Host Name** (which assures the uniqueness of the Device's name within the Workgroup). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBEUI) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide. To modify the name of the Device's Workgroup, or Device's name (SMB Host name) within the workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Device, as described under the Configure SMB menu item, under the **Internet Services Tab** of this guide.

Verify that the NetBEUI Protocol and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. Click the **Configuration Tab (95/98/Me)** or the **Protocols Tab (Windows NT4)** and verify that the NetBEUI protocol is loaded. If it is, click the **Identification Tab (95/98/Me/NT4)** to determine if the name of your workstation's Workgroup is the same as the name of the device's Workgroup. If it is, you can exit the Properties screen. If it is NOT, either modify the name of the Device's workgroup to match your own, or type in the name of the Device's workgroup here. Click **OK**.

Notes:

If the NetBEUI Protocol is not present in the Protocol list, click the Add button, select NetBEUI from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

If the Device will be directly attached to a networked workstation, you need to enable Sharing on the workstation that the Device is attached to. At the workstation sharing the Device, right mouse click the Network Neighborhood icon (My Network Places" in Windows Me) and select Properties. Click the Configuration Tab (95/98/Me) and verify that File and Printer Sharing services is installed. If it isn't, with your Windows installer disk available, click the Add button to install the required service. In Windows 95/98/Me, click the File and Print Sharing button and verify that the checkbox labeled "I want to be able to allow others to print to my printer(s)" is enabled (checked). In Windows 95/98/Me and NT4, from the Printers folder on the desktop, right mouse click on the Printer's icon and select Properties (95/98/Me) or Document Defaults (NT4). Select the Sharing Tab and verify that sharing is enabled for this device.

Add the Printer to the Windows 95/98/Me & NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer over the network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **WorkGroup** for the device as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. You will be prompted for a print driver. Select **Have Disk...** and browse to the location of your print drivers. Select the relevant print driver (.INF file) then click **OK**.
8. Click **OK** on the "Install From Disk" screen, if it displays.
9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose Yes if you will be printing primarily to this printer from your Windows applications. Click **Next**.
10. **Print a Test Page**. Verify that it prints at the Device.
11. Click Finish.

Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Configure the Print Driver from Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

NetBIOS over IP Peer to Peer Printing

D7

Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that TCP/IP is enabled** as one of the supported protocols (NetBEUI may also be displayed). Verify that the **workgroup's default name is Workgroup**, or a valid, 15 character maximum, workgroup name. Also note the **Device's SMB Host Name** (which assures the uniqueness of the Device's name within the Workgroup). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBIOS over IP) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide. To modify the name of the Workgroup, or Device's name (SMB Host name) within the workgroup, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Device, as described under the Configure SMB menu item, under the **Internet Services Tab** of this guide.
4. Make sure to configure the DNS/WINS Server(s) for NetBIOS name to IP address resolution. Then provide the Device with the addresses of the Servers as stated in the **Configure TCP/IP Settings** procedure of the Internet Services section of this guide.

Windows 95/98/Me Workstation Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. On the **Configuration Tab**, verify that **Client for Microsoft Networks** is installed. If it is NOT, click the **Add** button, select **Client**, select **Add**, select **Client for Microsoft Networks**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the client from the Operating System installer disk for this workstation.
3. On the **Configuration Tab**, verify that the TCP/IP protocol is installed. If it is NOT, click the **Add** button, select **Protocol**, select **Add**, select **TCP/IP Protocol**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.

4. Click the **Identification Tab** and verify that this workstation has a UNIQUE Computer Name (15 characters maximum) and is a member of a workgroup (Workgroup is the default Windows workgroup name).
5. Click the **Configuration Tab** and select (highlight) the **TCP/IP Protocol**. Click the **Properties** button and select the **NetBIOS Tab**. Verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP" is checked. Next, click the **DNS Configuration Tab** and make sure that the "Enable DNS" radio button is selected. Enter in this workstation's Computer Name (from the Identification Tab) into the "Host" text box. Enter the Domain that this Host (Computer Name) resides in into the "Domain" text box (xerox.com, for example). In the boxes provided, enter the IP address of the DNS (Domain Name Service) Server. Finally, click the **IP Address Tab** and verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP Address.

Note: If you are operating a Windows Internet Naming Service Server on an NT only network, you may wish to configure WINS instead of DNS by selecting the WINS Configuration Tab.

Add the Printer to the Windows 95/98/Me Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Workgroup** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. Double click the name of the **Workgroup** for the device as shown on the Settings List. Select the **SMB Host Name** as shown on the Settings List. Click **OK**, then click **Next**.
7. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
8. Click **OK** on the "Open" screen, if you used the Browse button.
9. Click **OK** on the "Install From Disk" screen.
10. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
11. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
12. **Print a Test Page**. Verify that it prints at the Device.
13. Click Finish.

Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Windows NT4 Workstation/Server Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been installed in the workstation.

Note: If the TCP/IP Protocol is not present in the Protocol list, click the Add button, select TCP/IP Protocol from the available list, and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

2. After verifying that the TCP/IP Protocol is present, click on TCP/IP Protocol to highlight it, and click on the Properties button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click OK when done.

3. Select the Services tab and verify that the Workstation service is installed. This is the NT workstation's client for communicating on Microsoft Networks using the SMB protocol.

Note: If the Workstation service is NOT loaded, click the Add button, select Workstation from the available list, and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the service from the Operating System installer disk for this workstation.

4. Click the DNS Tab and make sure that the workstation has a Host Name entered into the Host Name text entry box. Optionally enter in the Domain that this Host resides in into the Domain text box (xerox.com, for example). Optionally use the Add... button to enter in DNS Server IP Addresses for the DNS Service Search Order.
5. Click on the WINS Address Tab and verify that the "Enable DNS for Windows Resolution" checkbox is checked (the preferred method for resolving host names to IP addresses on TCP/IP networks).

Note: If your are operating a Windows Internet Naming Service (WINS) Server on an NT only network, you might alternatively wish to deselect the "Enable DNS for Windows Resolution" checkbox and supply the IP addresses of a Primary (and Secondary, if used) WINS Server.

Add the Printer to the Windows NT4 Desktop

1. From the Start menu, select Settings and then Printers.
2. Double-click Add Printer.
3. When the Add Printer Wizard displays, select Network Printer.
4. Select Browse to search for the device's Workgroup over the Microsoft network.
5. Select the plus symbol (+) to the left of Entire Network to expand it if necessary.
6. Double click the name of the Workgroup for the device as shown on the Settings List. Select the SMB Host Name as shown on the Settings List. Click OK, then click Next.
7. You will be prompted for a print driver. Select Have Disk and browse to the location of your print drivers.
8. Select the .INF file and click Open.
9. When the "Install from Disk" screen displays, verify that the path and file name are correct and click OK.
10. Select the model that corresponds to your Printer and click Next.
11. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select Yes if you will be printing primarily to this printer from your Windows applications. Click Next.
12. Select Yes to print a Test Page.
13. Select Finish and verify that the Test Page printed out at the Device.

Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

An Alternate Procedure for Setting up NetBIOS over IP Peer to Peer Printing

EXPERIENCED SYSTEMS ADMINISTRATORS can use the following procedure:

1. **On NT4 workstations**, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.
2. **On Windows 2000 and XP workstations**, from the "Properties selection" of the "Local Area Connection" icon, verify that the **Internet Protocol (TCP/IP)** is installed. Select the protocol and click **Properties**. Verify that TCP/IP is configured for use of the DNS Server. Click the **Advanced** button and select the **DNS** Tab. Verify that the checkbox labeled "Register this connection's addresses in DNS" is checked. Select the **WINS** Tab and verify that the NetBIOS setting is set to either "Use NetBIOS Setting from the DHCP Server," or that "NetBIOS is enabled over TCP/IP." Click Cancel twice and verify that the **Client for Microsoft Networks** is installed. Finally, with your Operating System Installer Disk readily available, through **Add/Remove Programs** and **Add/Remove Windows Components**, select Other Network File and Print Services. Click Details, check the box for **Print Services for Unix**, and click OK and Next.
3. **On 95/98/Me workstations**, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup.
4. Create an **LPR port** on your NT4, Windows 2000, or Windows XP Operating System. Use a Print Utility (Spooler) program to create an LPR port on the Windows 95/98/Me workstation.
5. When prompted for the "Name or address of server providing lpd" enter in the Device's **SMB Host Name** as seen on the Device's Settings List.
6. When prompted for a queue name, enter in your preference of an easily-identified name for this Printer.
7. Install the Print driver on your workstation and, when prompted to select a port to print through, select the LPR port that you just created.
8. Print a Test Print to verify successful communications with the printer.

Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, **verify that "SMB" is enabled**. Also, **verify that TCP/IP is enabled** as one of the supported protocols (NetBEUI may also be displayed). To enable "SMB," if required, follow the procedure stated under the Microsoft (NetBIOS over IP) item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
4. The Workstation Print Driver Installation Procedures below ASSUME that you have already **Set Up an NT Server to Queue Jobs to the Printer**. If you have NOT already set up the NT Server, for a quick-step set up procedure, refer to the instructions supplied under the selection "Microsoft (NetBIOS over IP)," located in the **NOS Selection** menu, under the **Network Connectivity Tab** of this guide.

Windows 95/98/Me Workstation Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. At the Workstation's Desktop, right-click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**.
2. On the **Configuration Tab**, verify that **Client for Microsoft Networks** is installed. If it is NOT, click the **Add** button, select **Client**, select **Add**, select **Client for Microsoft Networks**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the client from the Operating System installer disk for this workstation.
3. On the **Configuration Tab**, verify that the TCP/IP protocol is installed. If it is NOT, click the **Add** button, select **Protocol**, select **Add**, select **TCP/IP Protocol**, and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
4. Click the **Identification Tab** and verify that this workstation has a UNIQUE Computer Name (15 characters maximum) and is a member of a workgroup (Workgroup is the default Windows workgroup name).

5. Click the **Configuration Tab** and select (highlight) the **TCP/IP Protocol**. Click the **Properties** button and select the **NetBIOS Tab**. Verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP" is checked. Next, click the **DNS Configuration Tab** and make sure that the "Enable DNS" radio button is selected. Enter in this workstation's Computer Name (from the Identification Tab) into the "Host" text box. Enter the Domain that this Host (Computer Name) resides in into the "Domain" text box (xerox.com, for example). In the boxes provided, enter the IP address of the DNS (Domain Name Service) Server. Finally, click the **IP Address Tab** and verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP Address.

Note: If you are operating a Windows Internet Naming Service Server on an NT only network, you may wish to configure WINS instead of DNS by selecting the WINS Configuration Tab.

Add the Printer to the Windows 95/98/Me Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double click the **Add Printer** button and click **Next**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Server** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. When the Server is located, double click on the Server's name.
7. Select the name of your Printer from the list of available network printers on the Server and click the **OK** button.
8. Click **Next** to open the Manufacturers and Printers window.
9. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
10. Click **OK** on the "Open" screen, if you used the Browse button.
11. Click **OK** on the "Install From Disk" screen.
12. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
13. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
14. **Print a Test Page**. Verify that it prints at the Device.
15. Click Finish.

Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Windows NT4 Workstation Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. At the Desktop, right mouse click the **Network Neighborhood** icon and select **Properties**. Click on the **Protocols** tab and verify that the **TCP/IP** protocol has been installed in the workstation.

Note: If the TCP/IP Protocol is not present in the Protocol list, click the Add button, select TCP/IP Protocol from the available list, and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

2. After verifying that the TCP/IP Protocol is present, click on **TCP/IP Protocol** to highlight it, and click on the **Properties** button of the Protocols window. If using Dynamic TCP/IP Addressing, select the radio button for Obtaining an IP Address Automatically from the DHCP Server. If using Static TCP/IP Addressing, select the radio button marked Specify an IP Address, and enter in the required IP Address, Subnet Mask, and Gateway addresses for this workstation. Click **OK** when done.

3. Select the **Services** tab and verify that the **Workstation** service is installed. This is the NT workstation's client for communicating on Microsoft Networks using the SMB protocol.

Note: If the Workstation service is NOT loaded, click the Add button, select Workstation from the available list, and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the service from the Operating System installer disk for this workstation.

4. Click the **DNS Tab** and make sure that the workstation has a **Host Name** entered into the Host Name text entry box. Optionally enter in the Domain that this Host resides in into the Domain text box (xerox.com, for example). Optionally use the Add... button to enter in DNS Server IP Addresses for the DNS Service Search Order.

5. Click on the **WINS Address Tab** and verify that the "Enable DNS for Windows Resolution" checkbox is checked (the preferred method for resolving host names to IP addresses on TCP/IP networks).

Note: If you are operating a Windows Internet Naming Service (WINS) Server on an NT only network, you might alternatively wish to deselect the "Enable DNS for Windows Resolution" checkbox and supply the IP addresses of a Primary (and Secondary, if used) WINS Server.

Add the Printer to the Windows NT4 Desktop

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Double-click **Add Printer**.
3. When the Add Printer Wizard displays, select **Network Printer**.
4. Select **Browse** to search for the printer's **Server** over the Microsoft network.
5. Select the plus symbol (+) to the left of **Entire Network** to expand it if necessary.
6. When the Server is located, double click on the Server's name.
7. Select the name of your Printer from the list of available network printers on the Server and click the **OK** button.
8. Click **Next** to open the Manufacturers and Printers window.
9. When the Manufacturers and Printers window displays, select **Have Disk** and browse to the location of your print drivers.
10. Select the **.INF** file and click **Open**.
11. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
12. Select the model that corresponds to your Printer and click **Next**.
13. At the next dialog, enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
14. Select **Yes** to print a Test Page.
15. Select **Finish** and verify that the Test Page printed out at the Device.

Configure the Print Driver

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Windows 2000 & XP Professional Workstation Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **Internet protocol (TCP/IP)** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start**, **Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. Also verify that this workstation is using a **DNS (or WINS) Server** for resolution of the NetBIOS Host name (typically the same name as the computer's Internet host name). If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client for Microsoft Networks** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start**, **Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client for Microsoft Networks is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client for Microsoft Networks**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select Network Printer and click Next.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**.
6. In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)." As a shortcut, if you know the UNC (Universal Naming Convention) of the Device, enter it in the text box. Click **Next**.
7. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of **Shared Printers**. Note that the displayed format for many of these Shared Printers is the UNC of the Printer (for example, \\computer (i.e. Server) name\share (i.e. Printer) name).
8. On the "Browse for Printer" screen, either click on (select with your mouse) one of the displayed Servers or UNC's, or enter into the text box the UNC of your Server and its Shared printer, if you know it. Click **Next**.
9. When prompted for the driver files, select **Have Disk** and browse to the location of your print driver.
10. Select the **.INF** file then click **Open**.
11. When the "Install from Disk" screen displays, verify the path and file name are correct and click **OK**.
12. Select the model that corresponds to your Printer and click **Next**.
13. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
14. Select **Yes** to print a test page. Click **Next**.
15. Click **Finish**.

Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults, including enabling Bi-Directional Communication. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

IPP Printing (Windows 2000 & XP)

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Note: Supported by all Windows 2000 and XP workstations, IPP (the Internet Printing Protocol) enables the convenience of printing over the Internet or Intranet through the creation of an IPP network port. This printing "service" is available for other workstation operating systems through downloads from the Microsoft web site. Follow the instructions provided by Microsoft, or other trusted sources on the Internet, to install the IPP service on operating systems other than Windows 2000 and XP.

Before You Start

1. Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.
2. Print a **Settings List** as stated under the **Network Connectivity Tab** of this guide.
3. On the Settings List, under the TCP/IP data label, verify that the Device has a **valid IP Address, Subnet Mask, and Gateway** displayed. If it does NOT, assign these addresses to the Device following the procedure stated under the **TCP/IP Protocol Configuration** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
4. On the Settings List, verify that **Port 9100** is displayed with a Port Status of **Enabled**. If it is NOT, enable Port 9100 as stated in the Note at the bottom of the **Configure Port 9100** procedure, under the **Internet Services Tab** of this guide. Specifically, click the Port Status hot link on the Properties Tab of Internet Services and make sure that the check box on the Port 9100 line is checked.
5. On the Settings List, **verify that IPP is enabled**. If it is NOT, enable the protocol following the procedure stated under the **IPP (Internet Printing Protocol)** item of the NOS Selection menu, accessed from the **Network Connectivity Tab** of this guide.
6. **Verify that IPP is using DNS** to resolve Host Names to IP Addresses in support of IPP printing. Using your workstation's Web browser, enter the TCP/IP Address of the Device in the Address or Location field and press **Enter**. Click the **Properties** button or Tab. Click the plus (+) symbol to the left of the **Protocol Settings** file folder and **select IPP** in the directory tree. Verify that the DNS Enablement Checkbox is checked. If it is NOT checked, check it with your mouse and click **Apply**.

Verify that TCP/IP is installed in the workstation

On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start**, **Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the **Internet Protocol (TCP/IP)** has been loaded. If it has, click on (highlight) this item with your mouse and click the **Properties** button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address. If the TCP/IP protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **Internet Protocol (TCP/IP)**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the Properties button to verify or set up the method being used for TCP/IP addressing.

Add the Printer to the Windows 2000 or Windows XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select Network Printer and click Next.
5. To create an IPP printer select Connect to a printer on the Internet.....
6. Type **http://** followed by the printer's fully qualified Domain name or IP address in the URL field. Note that you may have to type **/ipp** after the Printer's name or IP address. The Printer's Name can be either the Internet Host Name or the SMB Host Name as shown on the Device's Settings List, depending on the name resolution used by your network (DNS or WINS).
7. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print driver.
9. Select the **.INF** file then click **Open**.
10. When the "Install from Disk" screen displays, verify the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults, including enabling Bi-Directional Communication. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

Before You Start

1. Obtain the Adobe PostScript Print Driver for your Macintosh (OS 9.x) workstation. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting file format from the Internet at www.xerox.com.
2. Print a **Settings List** as stated in the **Network Connectivity** section of this guide.
3. On the Settings List, under the **EtherTalk** data label, verify that the EtherTalk port is enabled, and that the Device has been assigned an EtherTalk (Printer) Name and an EtherTalk zone. If one or more of these parameters needs to be configured, follow the instructions supplied in the **EtherTalk (AppleTalk) Configuration** topic of the NOS Selection section of this guide.

Load the Print Driver into your Macintosh workstation

1. Load the Drivers CD-ROM into your CD drive.
2. Open the CD and locate the Drivers folder.
3. Locate and open the Mac folder.

Installation Instructions for 8.x / 9.x

1. Double-click the installer file to install the printer driver on your Macintosh.
2. Click **Continue**.
3. Click **Agree** or **Accept** to accept the License Agreement.
4. Click **Install**.
5. Your Mac may need to be restarted. Click **Yes** to continue.
6. The driver will install. Select **Restart**.
7. Once the Mac has restarted, select **Apple**, then **Chooser**.
8. Select the printer icon, then select the Printer Name which corresponds to the name given to the device under the EtherTalk data label on your Settings List.
9. Select **Create**.
10. Select the PostScript Printer Description (PPD) that matches your machine model.
11. Click **Select**.
12. Click **Setup**.
13. Click **Configure**.
14. Select the installed options which correspond to your machine configuration.
15. Click **OK**.
16. Click **OK** and close the Chooser.
17. Print a document from an application to verify that the printer is installed correctly.

Installation Instructions for 10.x (OS X)

1. Double click to open the folder containing the drivers for version 10.x.
2. Double click to open the [machine model.dmg].
3. Double click to open the [machine model.pkg] file.
4. When the Welcome screen displays, click **Continue**.
5. Click **Continue**, then **Agree** or **Accept** to accept the License Agreement.
6. Select the required disk (if necessary) where you want to install the printer. Click **Continue**.
7. Click **Install**.
8. Click **Close**, and restart the workstation.
9. When the workstation has restarted, double click the hard drive icon.
10. Double click the Applications icon.
11. Double click the Utilities folder.
12. Double click Print Center icon.
13. Double click **Add** to add a new printer.
14. Select AppleTalk as your network protocol.
15. Select the required AppleTalk zone.
16. Select the printer that you wish to set up.
17. Select the Printer Model (that is, choose the PPD for your printer).
18. Click **Add**.
19. Print a document from an application to verify that the printer is installed correctly.

NetWare 3.12 and 4.x/5.x (Bindery) Printing

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Before You Start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.

Windows 95/98/Me/NT4 Workstation Print Driver Installation

Verify that the Correct Protocol and Service is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Protocols** TAB (in Win. NT) or the **Configuration** TAB (in Win. 95/98/Me) to verify that the IPX/SPX Protocol has been loaded. It should appear in the displayed list.
4. Note: If the IPX/SPX Protocol has NOT been loaded, click the **Add** button, select **IPX/SPX Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
5. Left mouse click on the **Services** TAB (in Win. NT) or the **Configuration** TAB (in Win. 95/98/Me) to verify that the Microsoft Client for NetWare is loaded.

Note: If the Microsoft Client for NetWare is NOT loaded, click the Add button, select the Microsoft Client Service (or Microsoft Network Service) for NetWare from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the service from the Operating System installer disk for this workstation.

Add the Printer to the Windows 95/98/Me/NT desktop

1. On the Windows desktop, use your mouse to select "Start," "Settings," "Printers," and "Add Printer."
2. Select the **Network Printer** radio button and click **Next**.
3. When the Network directory window displays (immediately in Win. NT, or by clicking Browse in Win. 95/98/Me), double click on the network icons (or the + sign in front of the icons) to open up Network subdirectories and locate the printer's server (the primary server), then locate the printer's queue. Click on the printer's queue to highlight it and click the **OK** button.
4. Click **Next** to open the Manufacturers and Printers window.
5. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
10. **Print a Test Page**. Verify that it prints at the Device.
11. Click Finish.

Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Configure the Print Driver in Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Windows 2000 and XP Professional Workstation Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been loaded. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client Service for NetWare** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client Service for NetWare**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

Add the Printer to the Windows 2000 and XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**. In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)."
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of Servers and Print Queues. Note: Make sure that you are browsing the NetWare network and NOT the Microsoft Windows Network.
7. On the "Browse for Printer" screen, click on (select with your mouse) your **Primary Server** and **Print Queue**. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print drivers.
9. Select the **.INF** file then click **Open**.
10. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults, including enabling Bi-Directional Communication. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

Before You Start

Obtain the Print Driver for your workstation's operating system. Drivers are available on one of the CD-ROMs that came with your Device. They are also typically available for downloading in self-extracting Zip file format from the Internet at www.xerox.com.

Windows 95/98/Me/NT4 Workstation Print Driver Installation

Verify that the Correct Protocol and Service is installed in the workstation

1. At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).
2. Left mouse click on **Properties**.
3. Click on the **Protocols** Tab (in Win. NT) or the **Configuration** Tab (in Win. 95/98/Me) to verify that the IPX/SPX Protocol has been loaded. It should appear in the displayed list.
4. Note: If the IPX/SPX Protocol has NOT been loaded, click the **Add** button, select **IPX/SPX Protocol** from the available list and click **OK**. If the setup program fails to find the required files, you will have to click **Have Disk...** to load the protocol from the Operating System installer disk for this workstation.
5. Left mouse click on the **Services** Tab (in Win. NT) or the **Configuration** Tab (in Win. 95/98/Me) to verify that the **Novell Client for NetWare** (such as IntranetWare Client for Windows NT or Novell Client 32) is loaded. Do NOT use the Microsoft Client for NetWare because it is NOT NDS enabled.

Note: If the Novell Client is not loaded you will need to load the Novell Client Service from the Novell Server Install CD ROM. Get the CD ROM, insert it in your ROM drive, and use Windows Explorer to locate the Read Me file for your NetWare version. Follow the Read Me instructions to install the client. When finished with the install, unless otherwise instructed by the Read Me file, you may still have to click on the Services Tab (NT) or Configuration Tab (95/98/Me), click the Add button, select the Novell client service, and click OK.

Add the Printer to the Windows 95/98/Me/NT desktop

1. On the Windows desktop, use your mouse to select "Start," "Settings," "Printers," and "Add Printer."
2. Select the **Network Printer** radio button and click **Next**.
3. When the Network directory window displays (immediately in Win. NT, or by clicking Browse in Win. 95/98Me), double click on the network icons (or the + sign in front of the icons) to open up the Network tree and context (country, organization, and organizational unit) to locate your printer's queue and name. Click on the printer's queue/name to highlight it and click the **OK** button.
4. Click **Next** to open the Manufacturers and Printers window.
5. When the Manufacturers and Printers window displays, select **Have Disk...** and enter in the path to your driver files. Note that you can also use the **Browse** button to locate the required **.INF** file.
6. Click **OK** on the "Open" screen, if you used the Browse button.
7. Click **OK** on the "Install From Disk" screen.
8. When the "Printers" list is displayed on screen, select your Printer. Click **Next**.
9. When prompted, accept the default printer name, or give your printer a more descriptive name. Select either Yes or No to make this printer your default Windows printer. Choose **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
10. **Print a Test Page**. Verify that it prints at the Device.
11. Click Finish.

Configure the Print Driver in Windows 95/98/Me

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Properties**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Configure the Print Driver in Windows NT4

1. From the **Start** menu, select **Settings** and then **Printers**.
2. Right click on the Printer's icon and select **Document Defaults**.
3. Select the correct paper size and any other default settings (such as enabling Bi-Directional Communication) that you wish to set for the printer.

Windows 2000 and XP Professional Workstation Print Driver Installation

Verify that the Correct Protocols and Services are installed in the workstation

1. Verify that the **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. Verify that the Protocol has been loaded. If the protocol is NOT loaded, click the **Install...** button, then select **Protocol** as the type of network component that you wish to install. Click the **Add...** button and select **NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.
2. Verify that the **Client Service for NetWare** is installed in the Workstation. On the Windows 2000 Desktop, right mouse click the **My Network Places** icon and select **Properties**. Right mouse click on the **Local Area Connection** icon and select **Properties**. On the Windows XP desktop, click **Start, Control Panel**, and double click **Network Connections**. Right mouse click on the **Local Area Connection** icon and select **Properties**. If the Client Service for NetWare is NOT loaded, click the **Install...** button, then select **Client** as the type of network component that you wish to install. Click the **Add...** button and select **Client Service for NetWare**. With your Operating System Installer Disk readily available, click the **Have Disk...** button and follow any remaining instructions.

Add the Printer to the Windows 2000 and XP Desktop

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. On Windows 2000, double-click **Add Printer**. On Windows XP, from **Printer Tasks**, select **Add a printer**.
3. When the "Add Printer Wizard" displays, click **Next**.
4. Select **Network Printer** and click **Next**.
5. In Windows 2000, on the "Locate Your Printer" screen, select the radio button labeled "Type the printer name or click next to browse for a printer." Click **Next**. In Windows XP, on the "Specify a Printer" screen, select the radio button labeled "Connect to this printer (or to browse for a printer, select this option and click Next)."
6. When the "Browse for Printer" screen displays, wait for the screen to finish loading its list of Servers and Print Queues.
7. On the "Browse for Printer" screen, double click on the network icons (or the + sign in front of the icons) to open up the Network tree and context (country, organization, and organizational unit) to locate your printer's queue and name. Click on the printer's queue/name to highlight it. Click **Next**.
8. When prompted for the driver files, select **Have Disk** and browse to the location of your print drivers.
9. Select the **.INF** file then click **Open**.
10. When the "Install from Disk" screen displays, verify that the path and file name are correct and click **OK**.
11. Select the model that corresponds to your Printer and click **Next**.
12. Enter a name for your Printer and select either Yes or No for making this printer your default Windows printer. Select **Yes** if you will be printing primarily to this printer from your Windows applications. Click **Next**.
13. Select **Yes** to print a test page. Click **Next**.
14. Click **Finish**.

Configure the Print Driver

1. On the Windows 2000 desktop, from the **Start** menu, select **Settings**, then **Printers**. On the Windows XP desktop, from **Start**, select **Printers and Faxes**.
2. Right click on the Printer's icon and select **Properties**. Use the available Tabs to set the Printer's job processing defaults, including enabling Bi-Directional Communication. Additional settings may be accessed by clicking the **Printing Preferences** button on the General Tab.

Common UNIX Printing System (CUPS)

Overview

The Common Unix Printing System (CUPS) was created by Easy Software Products in 1998 as a modern replacement for the Berkeley Line Printer Daemon (LPD) and AT&T Line Printer (LP) system designed in the 1970's for printing text to line printers.

Currently available for downloading from a number of sources on the Internet, such as www.cups.org, CUPS is offered in both source code and binary distributions.

Before You Start

Verify that IPP and Port 9100 are enabled at your device.

For instructions, refer to the **IPP Configuration** and **Configure Port 9100** topics in the **NOS Selection** section of this guide.

Installing CUPS on the UNIX workstation

The instructions for installing and building CUPS are contained in the CUPS Software Administrators Manual, written and copyrighted by Easy Software Products and available for downloading at www.cups.org/documentation.php. An Overview of the Common UNIX Printing System, Version 1.1 by Easy Software is also available at this site.

A case history of the building and installation of CUPS source code on a FreeBSD 4.2 machine, is described in the article entitled Using CUPS--the Common UNIX Printing System, by Ralph Krause, available at www.cups.org, through the links/documentation/tutorials/BSD Today - Using CUPS selections. Directory locations for the CUPS files, as described in this article, are the following:

Programs were copied to /usr/local/bin and usr/local/sbin.

Documentation was copied to /usr/local/share/docs/cups.

A directory called /usr/local/share/cups was created for various CUPS data files.

The configuration files were copied to /usr/local/etc/cups.

The binary distribution of CUPS is available in tar format with installation and removal scripts, as well as in rpm and dpkg formats for RedHat and Debian versions of Linux. After logging into the workstation as root (su) and downloading the appropriate files to the root directory, the CUPS installation process begins as follows:

Tar format:

After untarring the files, run the installation script with `./cups.install` (and press Enter).

RPM format:

```
rpm -e lpr
```

```
rpm -i cups-1.1-linux-M.m.n-intel.rpm (and press Enter).
```

Debian format:

```
dpkg -i cups-1.1-linux-M.m.n-intel.deb (and press Enter).
```

Note: RedHat Linux, versions 7.3 and newer, include CUPS support, so software downloading is unnecessary. Also, CUPS is the default printing system used by Mandrake Linux.

Installing the Xerox PPD on the workstation

The Xerox PPD for CUPS should be available on one of the CD-ROMs that came with your device and available for downloading from the Internet at www.xerox.com.

From the CD-ROM or from the downloaded Internet file, with root privileges copy the PPD into your cups ppd folder on your workstation. If you are unsure of the folder's location, use the Find command to locate the ppd's. An example of the location of the ppd.gz files in RedHat 8.1 is /usr/share/cups/model.

Adding the Xerox printer

1. Use the PS command to make sure that the CUPS daemon is running. The daemon can be restarted from Linux using the init.d script that was created when the CUPS RPM was installed. The command is `> /etc/init.d/cups restart`. A similar script or directory entry should have been created in System V and BSD. For the example of CUPS built and installed on a FreeBSD 4.2 machine from the source code, run `cupsd` from `/usr/local/sbin`. (`cd /usr/local/sbin cupsd` press Enter).
2. Type <http://localhost:631/admin> into the address (URL) box of your web browser and press Enter.
3. For User ID, type root. For the requested password, type the root password.
4. Click Add Printer and follow the on screen prompts to add the printer to the CUPS printer list.

Printing with CUPS

CUPS supports the use of both the System V (`lp`) and Berkeley (`lpr`) printing commands.

Use the `-d` option with the `lp` command to print to a specific printer.

```
lp -dprinter filename (Enter)
```

Use the `-P` option with the `lpr` command to print to a specific printer.

```
lpr -Pprinter filename (Enter)
```

For complete information on CUPS printing capabilities, see the CUPS Software Users Manual available from www.cups.org/documentation.php.

Options

Enabling Options with Software Keys

Options such as **Scanning** (E-Mail, Mailbox, Network, Twain), **Security** (Disk Overwrite, Digital Watermark), **Internet Fax** (iFAX), **Server Fax**, and **Job Based Accounting**, require purchase and subsequent enabling with a supplied 12 character key before they will work.

Upon receipt of the software key, use the following procedure to enable the associated Option.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or the current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Common Settings**.
6. Touch **Maintenance**.
7. Touch **Software Options** and enter the key in the box provided.
8. Touch **Save**, then touch **Reboot**.

Scanning to the Device's Hard Drive

Before You Start E1

It is assumed that you purchased the Scanning option to enable Scanning to the Hard Drive with your Device. If you did not, contact your Xerox Representative to purchase this option.

To support retrieval of scanned documents from the Device's "Mailboxes" to your workstation's desktop, **make sure that the protocol known as "Salutation" is enabled**, either from the Device's Control Panel or through the use of Internet Services.

Print a Settings List to verify that Salutation is enabled

1. Press the **Machine Status** button.
2. Press the **Billing Meter/Print Report Tab** on the touch screen.
3. Press the **Print Report/List** button.
4. Press the **Copy Mode Settings** button.
5. Press the **Settings List** button displayed by itself on screen.
6. Press the large, green, **Start** button, located to the immediate right of the Control Panel's numeric keypad.
7. The printing process will be graphically displayed on the touch screen. Upon receipt of the Settings List, note that the three page print is formatted into two columns with horizontal ruled lines indicating four distinct data display areas on the print. **The first area displays System Settings. The second area displays Copy Mode Settings. The third area displays Print Mode Settings. The fourth area displays Communication Settings.** THIS IS THE AREA THAT SHOULD SHOW SALUTATION AS ENABLED.

To enable Salutation from Internet Services

1. From the Device's **Settings List**, verify that **TCP/IP is enabled** and that the Device has an IP address displayed on the Report. If it doesn't, go to the NOS Selection section of this guide and refer to the TCP/IP Protocol Configuration topic for TCP/IP set up instructions.
2. Assuming that TCP/IP is enabled and the Device has an assigned IP address, open your Web browser at your networked workstation and enter the **TCP/IP address** of the Device in the Address or Location field. Press **Enter**.
3. Click the **Properties** Tab.
4. Click the **Port Status** hot link in the beginning list of hot links in the Directory Tree.
5. In the displayed Port Status table, make sure that the check box next to **Salutation** is enabled with a check mark in the box. If it isn't, use your mouse to place a check mark in the box.
6. To have the Device register changes made to this table, click the **Apply** button, then click the **Reboot** button (always available on the Status Tab) to remotely reboot the Device.

To enable Salutation from the Device's Control Panel

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times.
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. Press the **Salutation** selection line on the Port Settings menu.
9. Press the **Change Settings button** in the lower right corner of the Port Settings menu screen.
10. When the **Salutation** selection menu displays, note that you have only one selection available on a single, numbered horizontal line, with the current status of this setting shown.
11. Press the selection line labeled **Port Status**.
12. Press the **Change Settings** button.
13. On the Salutation Port Status screen, note which of the two buttons is highlighted as the current setting for Salutation enablement. The available settings are Enabled or Disabled. To support the retrieval of scanned files from the Device's Mailboxes to individual desktops, this setting must be **Enabled**.
14. To change settings, press the setting of choice (Enabled), then press the **Save** button. To exit the screen, without making any changes, press the Cancel button.
15. To exit the Salutation selection menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.
16. To exit the Port Settings menu, press the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
17. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
18. Press the rectangular **Close** button in the upper right corner of the System Settings screen.
19. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

Setting Up Mailboxes

E13

Note: Scanning to the Device's hard drive requires the set up of individual Mailboxes to receive scanned files. Up to 200 Mailboxes can be set up to support this type of scanning. To set up Mailboxes, perform the following steps:

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times.
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **Setup Menu** button.
6. Press the **Mailbox** button.
7. When the numbered list of Mailboxes is shown on screen, use the supplied arrow keys to scroll through the list to locate an unassigned Mailbox number.
8. Select an unassigned Mailbox number from the displayed list.
9. Press the rectangular **Create & Delete** button in the lower right corner of the Mailbox selection screen.
10. When the **New Mailbox - Password** screen displays, use the **On** and **Off** buttons on the left-hand side of the screen to determine whether or not a password will be required to access the Mailbox. If **On** is selected, use the Device's numeric keypad to enter in a numbered password.
11. Press the **Save** button to save your settings. (To exit the screen, without saving settings, press the Cancel button.)
12. When the Mailbox settings screen displays (after assigning a password), note that you have five setting selections displayed on five numbered horizontal lines. The available selections include: Mailbox Name, Check Password, Delete Documents After Retrieval, Delete Documents with Expire Date, and Link Job Flow Sheet to Mailbox.
13. To assign a name to the Mailbox, press the **Mailbox Name** selection line.

14. Press the rectangular **Change Settings** button.
15. Use the touch screen keyboard to enter in a name for your Mailbox.
16. When finished entering in a name, press the **Save** button in the upper right corner of the screen. (To exit the screen, without saving changes, press the Cancel button.)
17. On the Mailbox settings screen, press any other selection lines of interest and use the **Change Settings** button, as previously described, to access and make setting changes. Use the **Save** button to save your changes.
18. To exit the Mailbox settings screen, press the rectangular **Close** button in the upper right corner of the screen.
19. To exit the screen that lists all assigned and unassigned Mailboxes, press the rectangular **Close** button in the upper right corner of the screen.
20. To exit the Setup Menu screen, press the rectangular **Close** button in the upper right corner of the screen.
21. To exit the System Settings screen, press the **Exit** button in the upper right corner of the screen.
22. The Main screen will now be displayed.

Scanning to Mailboxes

E14

Note: Scanning to the Device's hard drive requires the set up of individual Mailboxes to receive scanned files. Up to 200 Mailboxes can be set up to support this type of scanning. To learn how to set up an individual Mailbox, refer to the Setting Up Mailboxes topic in the Scanning to the Device's Hard Drive section of this guide, and follow the instructions supplied.

To scan to a Mailbox, perform these steps:

1. From the Device's Main screen, press the **Scan to Mailbox button**.
2. When the **Scan to Mailbox** screen displays, a number of File Folder icons will be shown. Use the supplied arrow to scroll through the icons to locate your Mailbox.
3. Select your Mailbox by pressing its icon on the touch screen.
4. When the **Password** screen displays, enter your password (series of numbers) using the Control Panel's numeric keypad.
5. Press the **Confirm** button on the touch screen.
6. Use the displayed controls to set up scanning parameters, then place your document in the document handler, and press the Control Panel's large, green **Start button**.
7. Press the **All Services button** to return to the Device's Main screen.

Retrieving Images from Mailboxes

E15

1. Images are retrieved from Mailboxes using the Device's Internet Services. To access the Internet Services from your workstation, with your Internet Browser program running on your workstation enter the Device's IP Address (as seen on the Settings List) into the Address or Location field of the browser. Press the **Enter** key on your keyboard.
2. Click the **Properties** Tab.
3. In the **Directory Tree**, on the left side of the Properties Tab screen, click the **Mailbox** hot link.
4. The screen displays Mailbox Number (1 - 200), Password, and Document Order (selectable between Descending and Ascending) selections. Enter in your Mailbox number and password, and click the rectangular, **Document List** button.
5. A list of all the scanned jobs, contained in the Mailbox, will be shown on screen.
6. Use your mouse to place a check mark in the box in front of the file that you wish to retrieve.
7. After selecting individual retrieval options, click the **Retrieve** button. Note that you can also specify printing options and print the document by clicking the Print Document button.
8. Click the **Save this Link** hot link provided on the next screen displayed to begin the image downloading process.
9. Note that after downloading a document, you can delete that document from your Mailbox on the Device by rechecking the box in front of the file just downloaded and clicking the **Delete** button.

Installing and Using the Network Scanner Utility2

E16

To retrieve scanned documents directly from the Device's mailbox(es) into an image-editing application such as Adobe® Photoshop®, you need to install the Network Scanner Utility2 (scan driver) on your workstation.

You can additionally install and use an application known as Mailbox Viewer2 to view and import scanned files, without using a client-side image-editing program. For Mailbox Viewer2 installation instructions, refer to instructions contained on the Driver/Network Utility2 CD ROM that came with the Device.

Before Installing the Network Scanner Utility2

Before installing the Network Scanner Utility2, make sure that your workstation meets the following requirements:

You must be running Windows 95, 98, Me, NT4, 2000, or XP. Windows NT 4.0 Server TSE (Terminal Server Edition) and Windows 2000 Server/Advanced Server Terminal Service are NOT compatible with this feature.

- Your workstation must be operating with a i486DX4/100 MHz processor or faster, have 32 MB RAM or greater, and have 40 MB or more of free hard drive space (not including space for storing scanned data).
- Your workstation must be connected to a network using the TCP/IP protocol.
- Your image-editing application must be compatible with the TWAIN interface to import scanned data.

Installing the Network Scanner Utility

1. Insert the Driver/Network Utility2 (Windows) CD ROM into your workstation's ROM drive.
2. Open Windows Explorer (NOT Internet Explorer), click the drive letter for your CD ROM drive, and open **Drivers\Scan\Disk1**.
3. Double click **Setup.exe** and follow the instructions displayed on screen.

Uninstalling the Network Scanner Utility

1. In Windows 95, 98, and Me, double click My Computer, Control Panel, then **Add/Remove Programs**. From the Windows 2000 desktop, from the Start menu, select Settings, Control Panel, then double click **Add/Remove programs**. On the Windows XP desktop, click Start, Control Panel, then double click **Add or Remove Programs**.
2. Select Fuji Xerox Network Scanner Utility, then click **Add Remove**.
3. Click **Yes**.

Importing Scanned Data from the Mailbox to an Image-Editing Application

1. Start a TWAIN-compatible application program, such as Photoshop.
2. From the **File** menu, select the command for selecting the scan source (Import/Twain Source, in Photoshop).
3. Select **FX Network Scan** from the displayed list and click **Select**.
4. From the **File** menu, select the command to import the image from the scanner. In Photoshop, for example, this would be Import/Twain.
5. If the scanner doesn't automatically display on screen allowing its selection with the **Select Scanner** button, perform the next six steps. Otherwise go to step 12 below.
6. Click Refresh.
7. Click Options.
8. Click Change Display in the scanner selection box.
9. To display scanners on other sub-networks, register them under Scanner Registration.
10. To learn about other fields in the displayed dialog box, click on Help.
11. Click **OK**.
12. Select the scanner for connection from the displayed list, then click **Select Scanner**. Note that you could also just double click the displayed scanner's name.
13. Enter the mailbox number and password when prompted.
14. Click **Open Mailbox**.
15. From the displayed document list, select the document you wish to import and click **Import**.

Importing Scanned Data from the Mailbox using Mailbox Viewer2

1. On your Windows desktop, select Start\Programs\FujiXerox\Network Scanner Utility2\Mailbox Viewer2.
2. Select the scanner for connection from the displayed list, then click **Select Scanner**.
3. If no items are shown in the list, click Refresh, then Options, then Change Display and register the scanner's IP address and name. Click OK when done.
4. Enter the mailbox number and password when prompted.
5. Click **Open Mailbox**.
6. From the displayed document list, select the document you wish to import and click **Import**.

Changing Network Utility or Mailbox Viewer Settings

Consult the on-line Help for help in changing any of the settings.

Scan to E-mail

E-mail Overview

It is assumed that you purchased the Scanning option to enable Scanning to the E-mail with your Device. If you did not, contact your Xerox Representative to purchase this option.

The machine is capable of exchanging E-mails.

The following features are available by exchanging E-mails.

- E-mail
- iFAX
- E-mail Printing
- Mail Notice
- Job Completion Notice

E-mail

Scanned documents can be converted into an electronic format and transmitted via E-mail.

iFAX

Unlike conventional fax machines which utilize public phone lines, the machine can transmit or receive scanned data as e-mail attachments using either corporate networks or the Internet.

Contents of E-mail are processed according to the settings of [Print iFax Headers and Contents] in CentreWare Internet Services.

E-mail Printing

E-mail with attachments in either TIFF or PDF format can be sent to the machine from computers. Received E-mail will automatically be printed.

Contents of E-mail are processed according to the settings of [Print Mail Headers and Contents] in CentreWare Internet Services.

Consumables Status Notice

E-mail containing contents (status of consumables, paper, and replaceable parts, etc.) set in [Mail Notice Settings] of CentreWare Internet Services is sent to a specified recipient. You can properly determine when to replace toner and drum cartridges by receiving their status periodically.

It is recommended that you register the address of a network administrator or a shared address.

Job Completion Notice

When a computer has submitted a job to the machine, a notification of the job's completion can be sent by E-mail.

Register the address of a network administrator or a shared address as necessary.

Preparations

The following items are required in order to use the E-mail feature.

Item	Description	E-mail via SMTP	E-mail via POP3	iFAX via SMTP	IFAX via POP 3	IFAX Direct (1) via SMTP	E-mail Printing	Mail Notice	Job Completion
TCP/IP address	The TCP/IP address for the machine. TCP/IP is used for e-mail.	○	○	○	○	○	○	○	○
Subnet mask	Required when the network is divided into subnets.	▲	▲	▲	▲	▲	▲	▲	▲
Gateway address	Required when multiple networks are connected by gateways.	▲	▲	▲	▲	▲	▲	▲	▲
Administrator E-mail address	Set the E-mail address for the machine administrator.	○	○	○	○	○	○	○	○
Machine E-mail address	Used as a sender address when the machine sends E-mail.	○	○	○	○	○	○	○	○
DNS server address	Required when the addresses for a POP3 server and a SMTP server are set with a domain name format instead of their IP addresses.	▲	▲	▲	▲	▲	▲	▲	▲
SMTP server address	The machine uses a SMTP server to send E-mail. The SMTP server can also be used for receiving E-mail.	○	○	○	○	–	○	○	○
SMTP authentication user name and password	If an SMTP server requires authentication, specify the authentication user name. Also specify a password as required.	▲	▲	▲	▲	–	▲	▲	▲
POP3 server	If a POP3 server is used to receive E-mails, register the machine's E-mail address and a user to the POP3 server. Also, it is	–	○	–	○	–	▲	▲	▲

Item	Description	E-mail via SMTP	E-mail via POP3	iFAX via SMTP	IFAX via POP 3	IFAX Direct (1) via SMTP	E-mail Printing	Mail Notice	Job Completion
	necessary to set the POP3 server address on the machine.								
POP user name and password	Set the POP receiving user address. Also specify a password as required.	–	○	–	○	–	▲	▲	▲
S/MIME settings	Set the S/MIME information.	▲	▲	▲	▲	▲	▲	X	X

○ Required setting. ▲ Optional setting. – Not required to set. x Not supported.

(1) When you use iFAX Direct, select System Settings, Fax Settings, iFAX Operation Control, and then select Direct (P2P) under IFAX Communication Pathway.

Registering an E-mail account

A mail account for the machine needs to be registered to a mail server.

Note: For information on mail account registration, refer to your mail server documentation.

Configuring E-mail Environment

Enable the E-mail ports and configure the machine E-mail address, TCP/IP environment, and E-mail server from the machine.

Note: The configuration can also be performed using CentreWare Internet Services. For information on how to use CentreWare Internet Services, refer to the Internet Services section of this guide.

Installation Procedure

Installation Overview

This section describes the configuration procedure to use the E-mail feature on the machine.

The following two steps are necessary to use the E-mail feature.

- Enabling the E-mail ports and setting TCP/IP
Set the machine to be able to use TCP/IP.
- Configuring the E-mail Environment
Set the items for E-mail on the machine.

Enabling the E-mail Ports and Setting TCP/IP

First enable the E-mail ports, then set the IP address.

Note: The configuration can also be performed using CentreWare Internet Services.

For information on how to use CentreWare Internet Services, refer to the Internet Services section of this guide.

1. Display the System Administrator Menu screen.
 - a. Press the **Log In/Out** button.
 - b. Enter the user ID with the numeric keypad or a keyboard displayed by pressing Keyboard, and select **Confirm**.

Note: The default user ID is "11111". When using the Authentication feature, a password is required. The default password is "x-admin".

- c. Select **System Settings**.
2. Enable a port which is used for the E-mail feature.
 - a. Select **System Settings**.
 - b. Select **Network Settings**.
 - c. Select **Port Settings**.
 - d. On the Port Settings screen, select **Send E-mail** and then select **Change Settings**.
 - e. On the Send E-mail screen, select **Port Status** and select **Change Settings**.
 - f. On the Send E-mail Port Status screen, select **Enabled** then select **Save**.
 - g. Select **Close**.
 - h. On the Port Settings screen, select **Receive E-mail**, then select **Change Settings**.
 - i. On the Receive E-mail screen, select **Port Status**, then **Change Settings**.
 - j. On the Receive E-mail Port Status screen, select **Enabled**, then select **Save** and **Close**.
 - k. On the Port Settings screen, select **Mail Notice Service**, then select **Change Settings**.
 - l. On the Mail Notice Service screen, select **Port Status**, then **Change Settings**.
 - m. On the Mail Notice Service – Port Status screen, select **Enabled**, then **Save**.
 - n. Select **Close** repeatedly until the Network Settings screen is displayed.

3. Set an IP address.

If an IP address is already set, this step is not necessary. Also, in an environment with DHCP or BOOTP, configure the way to obtain an IP address. If the address cannot be obtained automatically or manual configuration is preferred, configure an IP address, a subnet mask, and a gateway address as stated below.

- a. Select **Protocol Settings**.
- b. Select **TCP/IP - Get IP Address** and then select **Change Settings**.
- c. Select one from [DHCP], [BOOTP], [RARP], [DHCP/Autonet] or [Manual] and then select **Save**. If you select anything other than [Manual], proceed to Step 4.

Note: When using a DHCP server, also configure the WINS (Windows Internet Name Service) server. To set a DHCP server, use CentreWare Internet Services. For details, refer to the Internet Services section of this guide.

- d. On the Protocol Settings screen, select **TCP/IP - IP Address** and select **Change Settings**.
- e. Enter the IP address using the numeric keypad.

Notes:

Enter address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

- f. Select **Save**.
- g. Configure **TCP/IP - Subnet Mask** and **TCP/IP - Gateway Address** using the same process as stated above.

Notes:

Enter the Gateway address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

Specify the subnet mask by a combination of the numbers 0, 128, 192, 224, 240, 248, 252, 254, and 255. However, you cannot use 0 between non-zero values.

If you do not set the gateway address, enter "0.0.0.0".

4. Select **Close** repeatedly until the System Settings screen (with an Exit button) is displayed.
5. Select **Exit**.
6. If you changed any settings, the Device will automatically reboot to register and enable your new settings. After the machine is restarted, print out a settings list to confirm that the ports are enabled and TCP/IP is correctly configured.

For information on how to print a settings list, refer to the Settings List topic in the Network Connectivity section of this guide.

Configuring E-mail Environment

Note: This configuration can also be performed using CentreWare Internet Services.

For information on how to use CentreWare Internet Services, refer to the Internet Services section of this guide.

1. Display the System Administrator Menu screen.
 - a. Press the **Log In/Out** button.
 - b. Enter the user ID with the numeric keypad or a keyboard displayed by pressing **Keyboard**, and select **Confirm**.

Note: The default user ID is “11111”. When using the Authentication feature, a password is required. The default password is “x-admin”.

- c. Select **System Settings**.
2. Set the E-mail address, host name, and domain name.
 - a. Select **System Settings**.
 - b. Select **Network Settings**.
 - c. Select **Machine E-mail Address/Host Name**.
 - d. Select **E-mail Address** and then select **Change Settings**.
 - e. Enter an E-mail address using the displayed keyboard.
 - f. Select **Save**.
 - g. Set a host name and a domain name.
 - h. Select **Close**.

If [SMTP] has been selected for the [Mail Receiving Protocol]

Aliases cannot be configured. A user can decide an account name (the left side of the @ mark). An address (the right side of the @ mark) is a combination of a host name and a domain name.

Example: mymail@myhost.example.com

- Account name : mymail
- Host name : myhost
- Domain name : example.com

If [POP3] has been selected for the [Mail Receiving Protocol]

Specify a POP user name to an account name (the left side of the @ mark), and a POP3 receiving mail server to an address (the right side of the @ mark). A user can decide an alias such as mymail@example.com.

Example: mymail@mb1.abc.example.com

Account name : mymail

3. Set the protocol for receiving E-mail.
 - a. On the Network Settings screen, select **Other Settings**.
 - b. Select **E-mail Receive Protocol** and then select **Change Settings**.
 - c. Select either **SMTP** or **POP3** as appropriate for your environment.
 - d. Select **Save** and then press **Close**.

If [SMTP] has been selected for the [Mail Receiving Protocol]

- a. On the Network Settings screen, select **Outgoing/Incoming** (i.e. E-mail Send/Receive Settings).
- b. Select **SMTP Server Settings** and then set the following items for the SMTP server.

[SMTP Server Port Number]

Enter a value in the range from 1 to 65535. The default is 25.

If [POP3] has been selected for the [Mail Receiving Protocol]

- a. On the Network Settings screen, select **Outgoing/Incoming** (i.e. E-mail Send/Receive Settings).
- b. Select **POP3 Server Settings** and then set the following items for the POP3 server.

[POP3 Server Setup]

Select from [By IP Address] or [By Server Name].

[POP3 Server IP Address]

Enter an IP address if [By IP Address] has been selected for [POP3 Server Setup].

Notes:

Enter the address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

[POP3 Server Name]

Enter a server name if [By Server Name] has been selected for [POP3 Server Setup].

[POP3 Server Port Number]

Enter a value in the range from 1 to 65535. The default is 110.

Note: Do not use the numbers of any other ports.

[POP3 Server Check Interval]

Set the interval for checking the e-mail on the POP3 server.

[POP3 Server Login Name]

Enter the name to login to the POP3 server.

[POP3 Server Password]

Enter the same password twice in the [New Password] and [Re-enter Password]. If you do not set the password, leave it blank and select **Save**.

[POP3 Receiving Password Encryption]

Select **On (APOP)** to encrypt the password, if desired.

- c. Select **Save** and then press **Close**.
- 4. Configure the E-mail transmission.
 - a. Select **SMTP Server Settings** and then set the following items for the SMTP server.

[SMTP Server Setup]

Select from [By IP Address] or [By Server Name].

[SMTP Server IP Address]

Enter an IP address if [By IP Address] has been selected for [SMTP Server Setup].

Notes:

Enter the address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

[SMTP Server Name]

Enter a server name if [By Server Name] is selected for [SMTP Server Setup].

[SMTP Server Port Number]

Enter a value in the range from 1 to 65535. The default is 25.

Note: This configuration is not necessary if [SMTP] has been selected for the [Mail Receiving Protocol] and has already been configured.

[E-mail Send Authentication]

Select one from [Off], [POP before SMTP], or [SMTP AUTH]. **Tip:** If you are having trouble sending E-mail, to see if Authentication is the problem, set this item to **Off** and set the SMTP Server IP Address (above) to a server that does not require authentication.

Note: If [POP before SMTP] is selected, the POP3 settings must be set.

[SMTP AUTH Login Name]

Set this item if [SMTP AUTH] is selected for [E-mail Send Authentication].

[SMTP AUTH Password]

Set this item if [SMTP AUTH] is selected for [E-mail Send Authentication]. Enter the same password twice in the [New Password] and [Re-enter Password]. If you do not set the password, leave it blank and select [Save].

- b. Select **Close**.

5. Configure the domain restriction.
 - a. On the Outgoing/Incoming E-mail settings screen, select **Domain Filter** and set the following items.

Domain filtering

Select one from [Off], [Enter Permitted Domain Names], or [Enter Rejected Domain Names].

[Domain 1] - [Domain 50]

Specify up to 50 domains if either [Enter Permitted Domain Name] or [Enter Rejected Domain Name] has been selected for [Domain Filter].

- b. Select **Close** several times to display the **Network Settings** screen.
6. Set the S/MIME information.

- a. Select **PKI (Public Key Infrastructure) Settings**.
 - b. Select **S/MIME Settings** and set the following items.

Device Certificate - S/MIME

Link a certificate to the machine. For information on creating a certificate, refer to Security in this guide.

S/MIME Communication

Set whether to enable or disable S/MIME Communication when a certificate ID is set.

Receive Untrusted E-mail

Set whether to receive untrusted E-mail or not.

Receive Untrusted iFAX - if available on screen.

Set whether to receive untrusted iFAX or not.

Message Digest Algorithm

Select a message digest algorithm from [SHA1] or [MD5].

Contents Encryption Method

Select a contents encryption method from [3DES], [RC2-40], [RC2-64], or [RC2-128].

Digital Signature - Outgoing E-mail

Set whether to always attach a digital signature to E-mail or to select a digital signature when sending E-mail.

Digital Signature - Outgoing iFAX - if available on screen.

Set whether to always attach a digital signature to iFAX or to select a digital signature when sending iFAX.

Certificate Auto Store

Select whether or not to automatically store a S/MIME certificate attached with the E-mail when receiving E-mail sent from an address registered in the address book.

7. Select **Close** repeatedly until the **System Settings** screen (with an Exit button) is displayed.
8. Select **Exit**.
9. After the machine is restarted, print a settings list to confirm that each item is configured.

For information on how to print a settings list, refer to the Settings List topic in the Network Connectivity section of this guide.

10. Test the E-mail transmission from the machine by pressing the **All Services button**, then touching the on-screen **E-mail** button, then the **Keyboard** button. Type in your E-mail address, then press **Close**. Place a document in the document handler and press the large, green, **Start button**, located to the immediate right of the Control Panel's numeric keypad.

Internet Fax (iFAX)

iFAX Overview

When the iFAX feature is enabled, the machine can transmit scanned data as an e-mail attachment using either corporate networks or the Internet, unlike conventional fax machines which utilize public phone lines. Also, the machine can receive e-mails transmitted from other machines which support the iFax service. When the machine receives e-mail from an iFAX-compatible machine, the received document is printed automatically.

Note: It is assumed that you purchased the Internet Fax option to enable iFAX with your Device. If you did not, contact your Xerox Representative to purchase this option.

Preparations

The following describes the necessary conditions to use iFAX on the machine.

System Requirements for the Machine

- Internet Fax kit
- The machine is connected to the network and communication through TCP/IP is available.
- The environment is prepared for e-mail exchange.

Installation Procedure

Installation Overview

The configuration procedure to use the iFAX feature on the machine is comprised of the following steps.

1. Enable the ports which are used for the iFAX feature, and set an IP address of the machine.
2. Configure the items for the iFAX feature on the machine.

Note: Configuration can also be performed using CentreWare Internet Services.

Enabling the E-mail Ports and Setting TCP/IP

First enable the ports for the e-mail feature, then set the IP address. The procedure for setting the machine is as follows.

First enable the E-mail port, then set the IP address.

Note: The configuration can also be performed using CentreWare Internet Services.

For information on how to use CentreWare Internet Services, refer to the Internet Services section of this guide.

1. Display the System Administrator Menu screen.
 - a. Press the **Log In/Out** button.
 - b. Enter the user ID with the numeric keypad or a keyboard displayed by pressing [Keyboard], and select **Confirm**.

Note: The default user ID is "11111". When using the Authentication feature, a password is required. The default password is "x-admin".

- c. Select **System Settings**.
2. Enable the ports which are used for the E-mail.
 - a. Select **System Settings**.
 - b. Select **Network Settings**.
 - c. Select **Port Settings**.
 - d. On the Port Settings screen, select **Receive E-mail** and then select **Change Settings**.
 - e. On the Receive E-Mail screen, select **Port Status** and select **Change Settings**.
 - f. On the Receive E-Mail Port Status screen, select **Enabled**, then select **Save**.
 - g. Select **Close** until the Port Settings screen is displayed.
 - h. On the Port Settings screen, select **Send E-Mail**, and then select **Change Settings**.
 - i. On the Send E-Mail screen, select **Port Status** and select **Change Settings**.
 - j. On the Send E-Mail Port Status screen, select **Enabled** then select **Save**.
 - k. Select **Close** repeatedly until the Network Settings screen is displayed.

3. Set the IP address.

If an IP address is already set, this step is not necessary. Also, in an environment with DHCP or BOOTP, configure the way to obtain an IP address. If the address cannot be obtained automatically or manual configuration is preferred, configure an IP address, a subnet mask, and a gateway address as stated below.

- a. Select **Protocol Settings**.
- b. Select **TCP/IP - Get IP Address** and then select **Change Settings**.
- c. Select one from [DHCP], [BOOTP], [RARP], [DHCP/Autonet] or [Manual] and then select [Save]. If you select anything other than [Manual], proceed to Step 4.

Note: When using a DHCP server, also configure the WINS (Windows Internet Name Service) server. To set a DHCP server, use CentreWare Internet Services. For details, refer to the Internet Services section of this guide.

- d. On the Protocol Settings screen, select **TCP/IP - IP Address** and select **Change Settings**.
- e. Enter the IP address using the numeric keypad.

Notes:

Enter address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

- f. Select **Save**.
- g. Configure **TCP/IP - Subnet Mask** and **TCP/IP - Gateway Address**.

Notes:

Enter the Gateway address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

Specify the subnet mask by a combination of the numbers 0, 128, 192, 224, 240, 248, 252, 254, and 255. However, you cannot use 0 between non-zero values.

If you do not set the gateway address, enter "0.0.0.0".

4. Select **Close** repeatedly until the System Settings screen (with an Exit button) is displayed.
5. Select **Exit**.
6. If you changed any settings, the Device will automatically reboot to register and enable your new settings. After the machine is restarted, print out a settings list to confirm that the ports are enabled and TCP/IP is correctly configured.

For information on how to print a settings list, refer to the Settings List topic in the Network Connectivity section of this guide.

Configuring the E-mail Environment

Note: This configuration can also be performed using CentreWare Internet Services.

For information on how to use CentreWare Internet Services, refer to the Internet Services section of this guide.

1. Display the System Administrator Menu screen.
 - a. Press the **Log In/Out** button.
 - b. Enter the user ID with the numeric keypad or a keyboard displayed by pressing **Keyboard**, and select **Confirm**.

Note: The default user ID is "11111". When using the Authentication feature, a password is required. The default password is "x-admin".

- c. Select **System Settings**.
2. Set the E-mail address, host name, and domain name.
 - a. Select **System Settings**.
 - b. Select **Network Settings**.
 - c. Select **Machine E-mail Address/Host Name**.
 - d. Select **E-mail Address** and then select **Change Settings**.
 - e. Enter an E-mail address using the displayed keyboard.
 - f. Select **Save**.
 - g. Set a host name and a domain name as above.
 - h. Select **Close**.

If [SMTP] has been selected for the [Mail Receiving Protocol]

Aliases cannot be configured. A user can decide an account name (the left side of the @ mark). An address (the right side of the @ mark) is a combination of a host name and a domain name.

Example: mymail@myhost.example.com

- Account name : mymail
- Host name : myhost
- Domain name : example.com

If [POP3] has been selected for the [Mail Receiving Protocol]

Specify a POP user name to an account name (the left side of the @ mark), and a POP3 receiving mail server to an address (the right side of the @ mark). A user can decide an alias such as mymail@example.com.

Example: mymail@mb1.abc.example.com

Account name : mymail

3. Set the protocol for receiving E-mail.
 - a. On the Network Settings screen, select **Other Settings**.
 - b. Select **E-mail Receive Protocol** and then select **Change Settings**.
 - c. Select either **SMTP** or **POP3** as appropriate for your environment.
 - d. Select **Save**.
 - e. Select **Close**.

If [SMTP] has been selected for the [Mail Receiving Protocol]

- a. On the Network Settings screen, select **Outgoing/Incoming** (i.e. E-mail Send/Receive Settings).
- b. Select **SMTP Server Settings** and then set the following items for the SMTP server.

[SMTP Server Port Number]

Enter a value in the range from 1 to 65535. The default is 25.

If [POP3] has been selected for the [Mail Receiving Protocol]

- a. On the Network Settings screen, select **Outgoing/Incoming** (i.e. E-mail Send/Receive Settings).
- b. Select **POP3 Server Settings** and then set the following items for the POP3 server.

[POP3 Server Setup]

Select from [By IP Address] or [By Server Name].

[POP3 Server IP Address]

Enter an IP address if [By IP Address] has been selected for [POP3 Server Setup].

Notes:

Enter the address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 – 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

[POP3 Server Name]

Enter a server name if [By Server Name] has been selected for [POP3 Server Setup].

[POP3 Server Port Number]

Enter a value in the range from 1 to 65535. The default is 110.

Note: Do not use the numbers of any other ports.

[POP3 Server Check Interval]

Set the interval for checking the e-mail on the POP3 server.

[POP3 Server Login Name]

Enter the name to login to the POP3 server.

[POP3 Server Password]

Enter the same password twice in the [New Password] and [Re-enter Password]. If you do not set the password, leave it blank and select **Save**.

[POP3 Receiving Password Encryption]

Select **On (APOP)** to encrypt the password, if desired.

- c. Select **Save**.
- d. Select **Close**.

4. Configure the E-mail transmission.
 - a. Select **SMTP Server Settings** and then set the following items for the SMTP server.

[SMTP Server Setup]

Select from [By IP Address] or [By Server Name].

[SMTP Server IP Address]

Enter an IP address if [By IP Address] has been selected for [SMTP Server Setup].

Notes:

Enter the address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

[SMTP Server Name]

Enter a server name if [By Server Name] is selected for [SMTP Server Setup].

[SMTP Server Port Number]

Enter a value in the range from 1 to 65535. The default is 25.

Note: This configuration is not necessary if [SMTP] has been selected for the [Mail Receiving Protocol] and has already been configured.

[E-mail Send Authentication]

Select one from [Off], [POP before SMTP], or [SMTP AUTH]. **Tip:** If you are having trouble sending E-mail, to see if Authentication is the problem, set this item to **Off** and set the SMTP Server IP Address (above) to a server that does not require authentication.

Note: If [POP before SMTP] is selected, the POP3 settings must be set.

[SMTP AUTH Login Name]

Set this item if [SMTP AUTH] is selected for [E-mail Send Authentication].

[SMTP AUTH Password]

Set this item if [SMTP AUTH] is selected for [E-mail Send Authentication]. Enter the same password twice in the [New Password] and [Re-enter Password]. If you do not set the password, leave it blank and select [Save].

- b. Select **Close**.

5. Configure the domain restriction.
 - a. On the Outgoing/Incoming E-mail settings screen, select **Domain Filter** and set the following items.

Domain filtering

Select one from [Off], [Enter Permitted Domain Names], or [Enter Rejected Domain Names].

[Domain 1] - [Domain 50]

Specify up to 50 domains if either [Enter Permitted Domain Name] or [Enter Rejected Domain Name] has been selected for [Domain Filter].

- b. Select **Close** several times until the **Network Settings** screen is displayed.
6. Set the S/MIME information.

- a. Select **PKI (Public Key Infrastructure) Settings**.
 - b. Select **S/MIME Settings** and set the following items.

Device Certificate - S/MIME

Link a certificate to the machine. For information on creating a certificate, refer to "Security" in this guide.

S/MIME Communication

Set whether to enable or disable S/MIME Communication when a certificate ID is set.

Receive Untrusted E-mail

Set whether to receive untrusted E-mail or not.

Receive Untrusted iFAX

Set whether to receive untrusted iFAX or not.

Message Digest Algorithm

Select a message digest algorithm from [SHA1] or [MD5].

Contents Encryption Method

Select a contents encryption method from [3DES], [RC2-40], [RC2-64], or [RC2-128].

Digital Signature - Outgoing E-mail

Set whether to always attach a digital signature to E-mail or to select a digital signature when sending E-mail.

Digital Signature - Outgoing iFAX

Set whether to always attach a digital signature to iFAX or to select a digital signature when sending iFAX.

Certificate Auto Store

Select whether or not to automatically store a S/MIME certificate attached with the E-mail when receiving E-mail sent from an address registered in the address book.

7. Select **Close** repeatedly until the **System Settings** screen (with an Exit button) is displayed.
8. Select **Exit**.
9. After the machine is restarted, print a settings list to confirm that each item is configured.

For information on how to print a settings list, refer to the Settings List topic in the Network Connectivity section of this guide.

Testing iFAX

Send from the Device to another iFAX-capable Machine

Test the iFAX transmission from the machine.

1. Press the **All Services button**, then touch the **Internet Fax** button to display the Internet Fax screen.
2. Select **New Recipient**, then the **To** button, in the Recipient's drop-down list.
3. Enter the destination address.
4. Touch the **Add** button, then touch **Close**.
5. Place your document in the document handler and press the **Start button** located to the immediate right of the Control Panel's numeric keypad.
6. Check to see if the other machine printed the incoming iFAX.

Server Fax

Server Fax Overview

The Server Fax feature enables you to fax documents without having a telephone line directly connected to your multifunction device. This is achieved by sending the documents to a separate, networked fax server with its own links to the telephone system.

It is assumed that you already purchased and enabled the Scanning option. If you did not, contact your Xerox Representative to purchase same. A hard disk and network card are required device hardware. Their presence can be confirmed by printing a Settings List, as stated in the Settings List topic in the Network Connectivity section of this guide.

The Server Fax option also needs to be purchased from your Xerox Representative, then enabled on the multifunction device using a software key (see Enabling Options with Software Keys in this guide).

As stated in this section, you will be setting up a network connection to a Xerox-certified, third party fax server (server running fax management software) which will receive, store, and redirect incoming documents to the server's fax boards, or other destinations determined by fax server software setup.

Note: The FAX or Internet Fax (iFAX) features and the Server Fax feature are mutually exclusive. If Server Fax is enabled, even if the machine is equipped with an internal fax board, scanning to the internal FAX will be disabled. While the Server Fax feature is enabled, the iFAX service will also be disabled. Also note that Mailbox to FAX (a Job Flow Sheet destination) and Direct Fax (LAN Fax) are not supported when Server Fax is enabled. You can use Internet Services, however, to select which Fax Service to enable, as described in this section.

Installation Checklist

Please ensure that the following items are available or have been performed.

1. Ensure the machine is fully functioning on the network prior to installation.
2. Enable the purchased Scanning option. For instructions, refer to the Enabling Options with Software Keys topic, in the Options section of this guide. Contact your Xerox Sales Representative if you have not purchased the Scanning option.
3. Enable the purchased Server Fax option. For instructions, refer to the Enabling Options with Software Keys topic, in the Options section of this guide. Contact your Xerox Sales Representative if you have not purchased the Server Fax option.
4. Verify that Scan to Fax Server is now the currently enabled Fax Service, as follows:
 - a. At your workstation, open your Web browser and enter the Ip address of the machine in the Address or Location field. Press Enter.
 - b. Click the Properties tab, then click the Protocol Settings folder (hot link).
 - c. Scroll down the list of protocols to the Fax folder.
 - d. Click on the Fax folder.
 - e. Click the fax Settings link and verify that Scan to Fax Server is displayed in the selection box.
 - f. If Scan to Fax is displayed instead, use the selection arrow to select Scan to Fax Server and click Apply.
 - g. Enter the administrator User Name and Password and click OK. The default is 11111 and x-admin.

5. Ensure that the TCP/IP and HTTP protocols are configured on the device and are fully functional. This is required to access the multifunction device's CentreWare Internet Services web pages, which can be used to configure Server Fax settings from a network-connected workstation.

To verify that the TCP/IP and HTTP protocols are correctly configured, print a Settings List as stated in the Settings List topic in the Network Connectivity section of this guide.

To configure TCP/IP, refer to the TCP/IP Configuration topic in the NOS Selection section of this guide.

6. To enable HTTP, refer to the Enable Internet Services (HTTP) topic in the Network Connectivity section of this guide.
7. Ensure that the FTP Client and SMB port are enabled on the device. To verify this, print a Settings List as stated in the Settings List topic in the Network Connectivity section of this guide.

To enable SMB, refer to Enabling the SMB Setting at the Device in the Microsoft (NetBIOS over IP) Networks topic of this guide. To enable FTP, use the same SMB enabling procedure, and simply choose FTP as the port to enable.

8. Install and configure the Xerox-certified, third party fax server per the fax management software manufacturer's instructions.

Note: If the fax server will be using TCP/IP to communicate, it is recommended that the server be assigned a static IP address.

Configure a Fax Filing Location (Repository)

Faxing from the multifunction device to a fax server is very similar to the other methods of faxing available to users on the multifunction device. The user simply selects the Fax button from the All Services screen, enters a Recipient phone number when prompted, places a document in the document handler, and presses Start.

The scanned document is converted into a TIFF file, and a job log is sent along with the image data to the fax server.

The transferred image resides in a directory on the fax server (commonly known as the fax repository). The server monitors the repository for documents to be faxed, and faxes any documents it finds per the routing instructions contained in the job log. The System Administrator uses a web browser on any networked workstation to access the Internet Services web pages, residing on the device, to configure communications with the fax server, and designate the location of the repository on the server.

Protocols available for use in communicating with the fax server include:

FTP (File Transfer Protocol): Requires an FTP service running on the fax server.

SMB (Server Message Block): Available for filing to an environment that supports the SMB protocol.

SMTP: Follow the basic instructions for enabling the E-mail ports in the Scan to E-mail section of this guide. You will need to know the fully qualified domain name of the fax server on your network (e.g. SMTP.yournet.net). Also, follow the fax server software manufacturer's instructions to establish fax server to email server communications in your network environment.

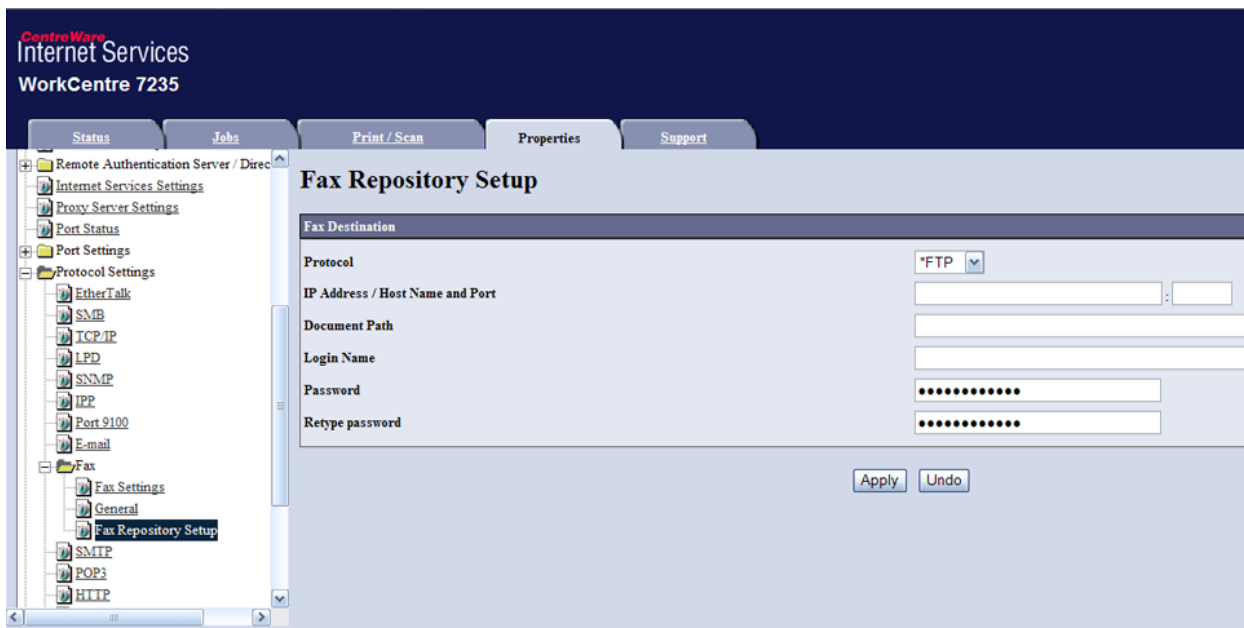
Configure a Fax Filing Repository using FTP

Installation Checklist

1. Ensure that a File Transfer Protocol (FTP) service is running on the fax server where images scanned by the machine will be stored. Write down the IP address or Host Name.
2. Create a user account (login name) and password for the machine on the server. When a document is scanned, the machine logs in using the account, transfers the file to the server, and logs out. Write down the user account (login name) and password.
3. Following the fax server software manufacturer's instructions, create a directory (repository) on the server (likely within the FTP root) to be used as a scan filing location. Write down the directory name and path to same.
4. If allowed by the fax server software manufacturer, test the FTP connection by logging into the scan directory from a remote PC using the user account and password. Create a new folder within the directory and then delete the folder. If you cannot perform this function, check the user account access rights and FTP service setup. Note that you can also simply wait until you have finished setting up device to server communications, as stated in this section, then send a fax to the server to test the communications setup.

Enter the Fax Repository Details via Internet Services

5. At your workstation, open your Web browser and enter the IP address of the machine in the Address or Location field. Press Enter.
6. Click the Properties tab, then click the Protocol Settings folder (hot link).
7. Scroll down the list of protocols to the Fax folder.
8. Click on the Fax folder.
9. Click the Fax Repository Setup link.
10. Select FTP for Protocol.
11. Enter either an IP Address or Host Name for the fax server in the box or boxes provided.
12. Enter 21 for Port Number (for FTP).
13. For Document Path, type in the name of the folder on the server that has been set up to receive device scans. Do not use forward slashes.
14. Supply the Login Name and Password for the machine to log into the fax server.
15. Re-enter the password in the Retype Password box.
16. Click Apply.
17. Enter the administrator User Name and Password and click OK. The default is 11111 and x-admin.



Configure General Settings

18. Click the General Settings link.
19. To print a Scan File Transfer Report, select Auto Print On, Auto Print Off, or Transmission Report - Undelivered, from the drop-down menu. Note that the Transfer Report only shows whether data was sent to the fax server. It does not show whether the fax was successfully sent by the fax server.
20. Check the User Name and Domain Name (Realm) boxes if you want these items to appear on the Job Log. The Job Log is filed with the scan job.
21. Click Apply.
22. Enter the administrator User Name and Password and click OK. The default is 11111 and x-admin.

Configure the Fax Server

23. Configure the fax server so that it is able to monitor the fax repository for incoming documents. Refer to the fax management software manufacturer's documentation to complete this task.

Test Faxing through the Server

1. Go to the machine and press the All Services button.
2. Press the Fax button.
3. Enter a valid fax number.
4. Place a document in the document handler and press the Start button located to the immediate right of the Control Panel's numeric keypad.
5. Verify that the fax was received by the specified fax machine.

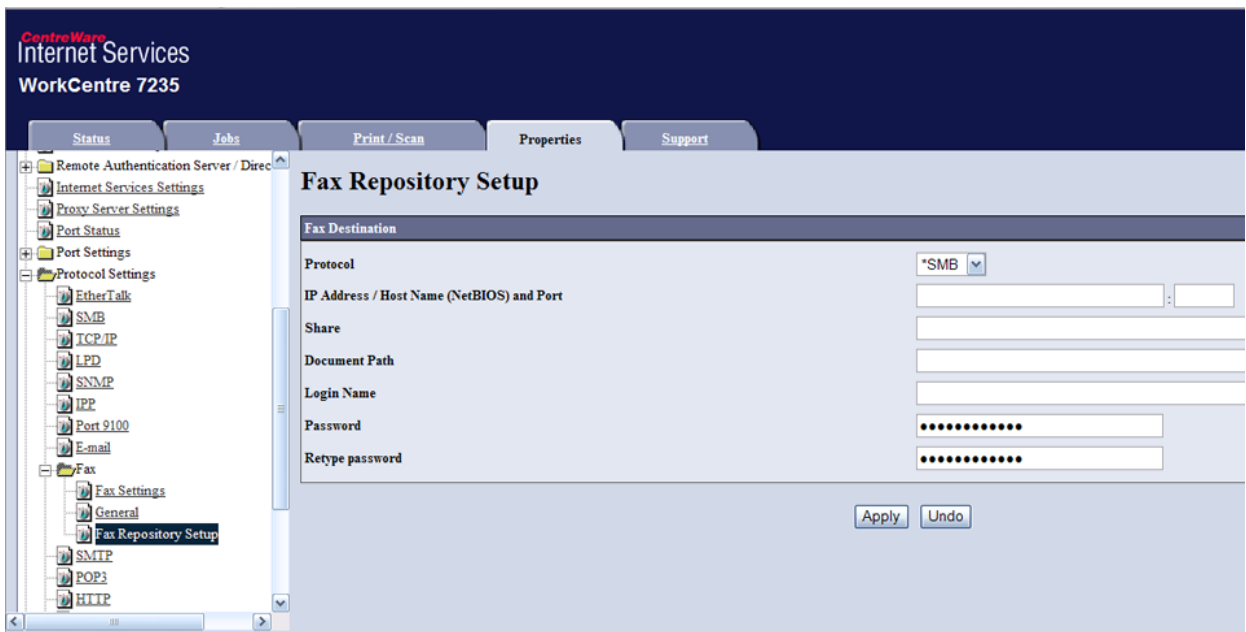
Configure a Fax Filing Repository using SMB

Installation Checklist

1. Following the fax server software manufacturer's instructions, create a shared folder on the fax server to be used as a scan filing location (repository) for scanned documents. Write down the Share Name of the folder and the Computer Name or Server Name.
2. Create a user account (login name) and password for the machine on the server. Make sure that the machine has full access rights to the scan directory. Write down the user account (login name) and password.
3. If allowed by the fax server software manufacturer, test the settings by attempting to connect to the shared folder from another PC by logging in with the user account and password. Create a new folder within the directory and then delete the folder. If you cannot perform this function check the user account access rights and Share setup. Note that you can also simply wait until you have finished setting up device to server communications, as stated in this section, then send a fax to the server to test the communications setup.

Enter the Fax Repository Details via Internet Services

4. At your workstation, open your Web browser and enter the IP address of the machine in the Address or Location field. Press Enter.
5. Click the Properties tab, then click the Protocol Settings folder (hot link).
6. Scroll down the list of protocols to the Fax folder.
7. Click on the Fax folder.
8. Click on Fax Repository Setup and select SMB for Protocol.
9. Enter an IP Address or Host (NetBIOS) Name.
10. Enter 139 for Port Number.
11. Enter the Share Name.
12. For Document Path, type in the name of the folder on the server that has been set up to receive device scans. Do not use back slashes.
13. Supply the Login Name and Password for the machine to log into the fax server.
14. Re-enter the password in the Retype Password box.
15. Click Apply.
16. Enter the administrator User Name and Password and click OK. The default is 11111 and x-admin.



Configure General Settings

17. Click the General link.
18. To print a Scan File Transfer Report, select Auto Print On, Auto Print Off, or Transmission Report - Undelivered, from the drop-down menu. Note that the Transfer Report only shows whether data was sent to the fax server. It does not show whether the fax was successfully sent by the fax server.
19. Check the User Name and Domain Name boxes if you want these items to appear on the Job Log. The Job Log is filed with the scan job.
20. Click Apply.
21. Enter the administrator User Name and Password and click OK. The default is 11111 and x-admin.

Configure the Fax Server

22. Configure the fax server so that it is able to monitor the fax repository for documents. Refer to the fax management software manufacturer's documentation to complete this task.

Test Faxing through the Server

1. Go to the machine and press the All Services button.
2. Press the Fax button.
3. Enter a valid fax number.
4. Place a document in the document handler and press the Start button located to the immediate right of the Control Panel's numeric keypad.
5. Verify that the fax is received by the specified fax machine.

Configure a Fax Filing Repository using SMTP

Installation Checklist

1. Ensure that the TCP/IP protocol is configured on the device and is fully functional. To configure TCP/IP, refer to the TCP/IP Configuration topic in the NOS Selection section of this guide.
2. Follow the basic instructions for enabling the E-mail ports in the Scan to E-mail section of this guide.
3. Also, in the Scan to E-mail section, follow the instructions for Configuring E-mail Environment to set the Machine E-mail Address. This address will then be displayed in the From field of the Fax.
4. You will need to know the fully qualified domain name of the fax server on your network (e.g. SMTP.yournet.net).
5. Follow the fax server software manufacturer's instructions to create a directory (repository) on the server to be used as a scan filing location.
6. Follow the fax server software manufacturer's instructions to determine what, if any, additional protocols or ports need to be enabled at the multifunction device to support SMTP (email) filing with the server.
7. Follow the fax server software manufacturer's instructions to establish fax server to email server communications in your network environment.

Enter the Fax Repository Details via Internet Services

1. At your workstation, open your Web browser and enter the IP address of the machine in the Address or Location field. Press Enter.
2. Click the Properties tab, then click the Protocol Settings folder (hot link).
3. Scroll down the list of protocols to the Fax folder.
4. Click on the Fax folder.
5. Click on Fax Repository Setup and select SMTP for Protocol.
6. In the Domain Name box, enter the fully qualified domain name of the fax server on your network (e.g. SMTP.yournet.net).
7. For E-mail Address Display Format, choose whether to add "FAX=" in front of E-mail addressing. If in doubt, select Do not add "FAX=".
8. Click Apply.
9. Enter the administrator User Name and Password and click OK. The default is 11111 and x-admin.



Configure General Settings

10. Click the General link.
11. To print a Scan File Transfer Report, select Auto Print On, Auto Print Off, or Transmission Report - Undelivered, from the drop-down menu. Note that the Transfer Report only shows whether data was sent to the fax server. It does not show whether the fax was successfully sent by the fax server.
12. Check the User Name and Domain Name (Realm) boxes if you want these items to appear on the Job Log. The Job Log is filed with the scan job.
13. Click Apply.
14. Enter the administrator User Name and Password and click OK. The default is 11111 and x-admin.

Configure the Fax Server

15. Configure the fax server so that it is able to monitor the fax repository for documents. Refer to the fax management software manufacturer's documentation to complete this task.

Test Faxing through the Server

1. Go to the machine and press the All Services button.
2. Press the Fax button.
3. Enter a valid email address.
4. Place a document in the document handler and press the Start button located to the immediate right of the Control Panel's numeric keypad.
5. Verify that the email was received by the specified recipient.

Features that can be set in support of Server Fax

Address Book Setup

Use of this feature enables Fax users to select recipients by 3 digit numbers. Note that a maximum of 50 characters can be designated for each destination and that only fax destinations can be used. Also note that all Address Book information other than Fax Number, Destination Name, and Index Character will be ignored. For example, the Extension/Outside line attribute of address book will be ignored.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Address Book**.
6. Select an available Address Number.
7. Touch **Create/Delete**.
8. Touch **Address Type**, then touch **Change Settings**.
9. Touch **Fax**, then touch **Save**.

Group Send

This setting supports Group Send (broadcast) Fax transmissions to up to 20 address numbers in a pre-designated group.

Note: When Group Send is designated with Server Fax, the group number retained by the server is used instead of the group number retained by the device. You will have to know what group the three digit number represents at the server, before selecting its use at the device's control panel.

Fax Mode Settings (Screen Defaults and Fax Defaults such as Delayed Start)

These settings include Screen Defaults and Fax Defaults.

Screen Defaults sets the screen displayed at the device's Control Panel when the Fax button is pressed.

Fax defaults lets you set the parameters for **Delayed Start** communications. This can be a useful feature for saving time-based phone charges. Note that the fax will be immediately sent from the device to the fax server repository, however the server will send the fax at the time designated by this feature.

1. If necessary, press the **Log In / Out** button and enter [11111] or current password. Touch **Confirm**, then touch **System Settings** and **System Settings** again.
2. From the System Settings screen, touch **Fax Mode Settings**.
3. Touch **Screen Defaults**.
4. Select a Line to enter or change, then touch **Change Settings**. Touch **Save** to save any new settings.
 - Fax Screen Default. Select General Settings or Address Book. This will be the Fax service screen that users see when they touch the Fax button.
 - Address Book Default. Leave this setting at the default of 1, or enter an address book (Fax mailbox) number to display when the Address Book button is touched by users of the Fax service screen. Note that the Fax mailbox needs to be created in advance of this setting.
5. Touch **Close** until the Fax Mode Settings screen is displayed.
6. Touch **Fax Defaults**.
7. Select **Delayed Start – Start Time**.
8. Touch **Change Settings**, make the desired changes, then touch **Save**.
9. Touch Close until the **System Settings** screen is displayed.

Color Mode, Resolution, File Format, and File Name

Note that when using Server Fax, these features are set to fixed values which cannot be changed. The setting for Color Mode is Monochrome. The setting for Resolution is Fine, and the setting for File Format is TIFF. In addition, the Server Fax feature also automatically assigns file names.

Fax

Fax Overview

FP

The optional Fax feature works much the same as a standard facsimile machine. **Extra features, covered in this section, such as the Address Book, Group Dial, Comments, and the use of Mailboxes, are meant to provide additional capabilities** in support of the Fax feature.

Note: It is assumed that you purchased the appropriate 1 or 3 line Fax hardware kit for use with your Device. If you did not, contact your Xerox Representative to purchase this option.

Checking and Setting Critical Fax Parameters

Refer to the Fax Settings Topic (including Fax Defaults and Fax Control) in this section **to determine if Fax Defaults and Fax Control parameters are correctly set for your environment.**

Before You Start Fax

FP1

Before starting the setup:

- You cannot use this machine with a call waiting service.
- A facsimile located close to a main unit of a cordless phone can cause distorted images or interrupted transmission. This machine should be installed at least five meters away from the main unit of the cordless phone.
- If the digital line leased for your company network is multiplexed, facsimile communication may be restricted as follows:

The features using our unique transmission method, such as Recipient Print Sets, Relay Broadcast and Remote Mailbox, are not available.

The transmission speed is limited.

Super G3 cannot be used.

Communications modes:

- G3 (Auto) - Normal Fax communications. The machine automatically switches modes in the following order of priority: Unique SG3 - Unique ECM - Unique G3 - ITU-T SG3 - ITU-T ECM - ITU-TG3 depending on the capabilities of the remote terminal.
- F4800 - Select this mode when transmitting over noisy or bad telephone lines, as can be the case with overseas calls.

Connecting the phone line:

LINE 1 Connect the fax to a public switched telephone network (PSTN). An external telephone cannot be connected.

TEL An external telephone is connected here.

LINE 2 (Line 2) Connect to a public line.

LINE 4 (Line 4) Connect to a public line.

Local Terminal Information Settings

FP2

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Fax Mode Settings**.
6. Touch **Local Terminal Information**.
7. Select the items to enter information and touch **Change Settings**.
 - a. Enter in a Local Name, up to 20 characters, then touch **Save**.
 - b. Enter a Company Logo, up to 30 characters, then touch **Save**.
 - c. Enter a Machine Password, up to 20 digits, then touch **Save**. Note: The password prevents your machine from receiving faxes, or being polled by other machines that are not F-Code compatible.
 - d. Enter G3 Fax ID, up to 20 digits, then touch **Save**.
 - e. Enter G3 Dial Type, Tone, 10pps, or 20pps, then touch **Save**.
 - f. Enter G3 Line Type, PSTN or PBX, then touch **Save**.
8. When complete touch **Close** repeatedly until the System Settings screen (with an Exit button) is displayed.
9. Touch **Exit**.

Address Book Setup

FP3

Use of this feature enables Fax users to select recipients by 3 digit numbers, which can be used to support speed dialing.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Address Book**.
6. Select an available Address Number.
7. Touch **Create/Delete**.
8. Touch **Address Type**, then touch **Change Settings**.
9. Touch **Fax**, then touch **Save**.

10. Select the items you would like to enter information for and touch **Change Settings**.
 - a. Fax Number, up to 128 characters, then touch **Save**.
 - b. Recipient, up to 18 characters, then touch **Save**.
 - c. Index, only 1 digit (used for a quick find), then touch **Save**.
 - d. Relay Station setup, On or Off, then touch **Save**.
 - e. Communication Mode, G3 Auto or F4800, then touch **Save**.
 - f. Resolution, choose one, then touch **Save**.
 - g. Cover Note, On or Off, then touch **Save**.
 - If On select Comment (Recipient Comment) then touch **Save**.
 - h. Maximum Image Size, choose one then touch **Save**.
 - i. Delayed Start, On or Off, then touch **Save**.
 - If On, choose Start Time, then touch **Save**.
 - j. Remote Mailbox, On or Off, then touch **Save**.
 - If On, enter Mailbox number, then touch Next, and password if required.
 - k. F Code, On or Off, then touch **Save**.
 - If On, enter F Code and password, then touch Next. **Note:** F Code is the transmission procedure set by the Communications and Information Network Association of Japan. DTMF Method: G3 Fax machines that support Manual Send can also make Relay Broadcasts for the machine. Refer to the Fax section of the Device's User Guide for full information.
 - l. Relay Broadcast, On or Off (This feature supports transmitting documents through a Relay Station. Refer to the Fax section of the Device's User Guide for full information.)
 - If On, enter 2 digit Relay Station ID, touch Enter/Change Recipients.
 - Enter Address Number or the Group Number and touch Add.
 - Print at Relay Station, On or Off, then Touch Save.
10. When complete, touch **Save** to exit the settings screen.
11. Touch **Close** to exit the Address Book screen.
12. Touch **Close** to exit the Setup Menu screen.
13. Touch **Exit** to exit the System Settings screen.

Group Send Setup

FP5

This setting supports Group Send (broadcast) Fax transmissions to up to 20 address numbers in a pre-designated group. Refer to the Group Send topic in the Device's User Guide for full information. To set up a Group, perform the following steps.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Group Send**.
6. Select a Group number.
7. Touch **Create/Delete**.
8. Use the numeric keypad to enter the three-digit Address Numbers of recipients contained in the machine's Address Book.

Note: Refer to the Address Book Setup topic in this section to learn how to set up address numbers so that they are available for selection here.

9. Touch **Add to this Group** to add recipients, one number at a time, to the group.
10. When complete, touch **Save**.
11. Touch **Close** until the System Settings screen (with an Exit button) is displayed.
12. Touch **Exit** to exit the System Settings screen.

Comments FP7

This feature can be used to add comments to a Cover Note (Cover Page).

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Comments**.
6. Select a Comment number.
7. Touch **Create/Delete**.
8. Enter a Comment, up to 18 characters, then touch **Save**.
9. When complete, touch **Close** until the System Settings screen (with an Exit button) is displayed.
10. Touch **Exit** to exit the System Settings screen.

Create a Mailbox FP9

The machine has 200 mailboxes available.

A mailbox must be created before you can use Remote Mailbox or route received documents into mailboxes (using the File Destination / Output Destination settings). Mailbox Fax Receive or Private Polling documents are stored in the Mailbox. This is also convenient for differentiating between received documents and documents to be transmitted (such as by Private Polling).

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**, then touch **Setup Menu**.
4. Touch **Mailbox**.
5. Select a Mailbox number.

6. Touch **Create/Delete**.
 - a. Password, On or Off, then touch **Save**.
 - If On, enter a password up to 20 digits, touch **Save**.
 - If Off, touch **Save**.
 - b. Mailbox Name, up to 10 characters, touch **Save**.
 - c. Check Password:
 - Save (Write) - A password is required in selecting a mailbox.
 - Print/Delete (Read) - A password is required to print and delete mailbox documents.
 - Always (All Operations) - A password is required for both operations described above.
 - d. Delete Documents After Retrieval:
 - No - Saves documents in Mailbox.
 - Yes - Deletes documents from Mailbox.
 - e. Delete Documents with Expire Date:
 - No – Continues to save documents in Mailbox.
 - Yes – Documents will be deleted from Mailbox after expiration date.
 - f. Link Job Flow Sheet to Mailbox: Select this option, then touch Change Settings to link a Job Flow Sheet to this Mailbox. The Job Flow Sheet routes incoming jobs to other destinations specified on the Job Flow Sheet. To create a new Job Flow Sheet, to link to an existing Mailbox, touch **Create/Change Link**. **Note:** For full information on the use of Job Flow Sheets, refer to **Setup and Use of Job Flow Sheets with Mailboxes** in the Options section of this guide.
7. When complete, touch **Close** until the System Settings screen (with an Exit button) is displayed.
8. Touch **Exit** to exit the System Settings screen

File Destination / Output Destination

FP11

Received Fax documents will be routed to the output tray or Mailbox specified by these settings.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Fax Mode Settings**.
6. Select **File Destination/Output Destination**.
7. Select the **Box Selector – Line Setup** button.
8. Touch **Change Settings**.
9. Make the appropriate selections and touch **Save** when done.
Note: If Box Selector is selected as an Output Destination, when On is selected, you will have to enter a mailbox number, then touch Save.
10. When complete, touch **Close** until the System Settings screen (with an Exit button) is displayed.
11. Touch **Exit** to exit the System Settings screen.

Common Settings: Audio Tones and Reports.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Common Settings**.
6. Touch **Audio Tones**.
 - Select an item to change (Tone, Volume, etc...), touch **Change Settings**, set the item, and touch **Save**.
7. Touch **Close** until the Common Settings Screen is displayed.

8. Touch **Reports**.

Select each item of interest, then touch **Change Settings** to modify the desired setting. Touch **Save** to save any new settings.

- a. Job History Report - Automatically print every 50 print operations. Default is 0=Off.
- b. Activity Report - Automatically print every 100 transactions. Select either On or Off.
- c. Transmission Report-Undelivered - Automatically print. Select either On or Off.
- d. Transmission Report-Cancelled - Automatically print. Select either On or Off.
- e. Mailbox Report - Automatically print. Select either On or Off.
- f. Broadcast/Multi-poll Report - Automatically print. Select either On or Off.
- g. Relay Broadcast Report - Automatically print. Select from the choices below:
 - Off
 - Send to Relay Station
 - Print at Local Station
 - Send to Relay, Print at Local
- Note:** A Relay Station is another Fax-capable machine to which faxes can be sent. Use of the second machine can help to cut down on broadcast Fax phone charges, such as those associated with long distance calls.
- h. 2 Sided Report - Default is 1 Sided.
- i. Recipient on Activity Report - How many characters from other party is printed on Activity Report. Select from the choices below:
 - First 40 characters.
 - Last 40 characters.
- j. Job Flow Error Report – Automatically print. Select either On or Off.

9. Touch **Close** until the System Settings Screen is displayed.

Fax Mode Settings (including Fax Defaults and Fax Control)

These settings include: Screen Defaults, Fax Defaults, Fax Control, File Destination / Output Destination, Reduce/Enlarge Presets, Original Size Defaults, and Local Terminal Information.

For information on **File Destination / Output Destination settings** and **Local Terminal Information settings** refer to the separate topics, with those names, in this Fax section of this guide.

Note: Information on Fax Defaults and Fax Control is critical to the operation of the Fax feature and should be carefully evaluated to assure that settings are correct for the current working environment.

1. If necessary, press the **Log In / Out** button and enter [11111] or current password. Touch **Confirm**, then touch **System Settings** and **System Settings** again.
2. From the System Settings screen, touch **Fax Mode Settings**.
3. Touch **Screen Defaults**.
4. Select a Line to enter or change, then touch **Change Settings**. Touch **Save** to save any new settings.
 - Fax Screen Default. Select General Settings or Address Book. This will be the Fax service screen that users see when they touch the Fax button.
 - Address Book Default. Leave this setting at the default of 1, or enter an address book (Fax mailbox) number to display when the Address Book button is touched by users of the Fax service screen. Note that the Fax mailbox needs to be created in advance of this setting.
 - Transmission Screen. Select either On or Off.
5. Touch **Close** until the Fax Mode Settings screen is displayed.
6. Touch **Fax Defaults**.
7. Select a Line to enter or change, then touch **Change Settings**. Touch **Save** to save any new settings.
 - Resolution.
 - Original Type.
 - Lighten/Darken.
 - Mixed Size Originals.
 - Communication Mode – Select G3 Auto or F4800.
 - Delayed Start – Start Time. This can be a useful feature for saving time-based phone charges.
 - Send Header. Select On or Off. This adds the sender name and phone number to faxes.
 - Transmission Report. Select On or Off. If set to On a report will print when transmission completes successfully.
 - Delivery Receipts/Read Receipts.
 - IFax Profile.
 - Ifax Subject.

8. Touch **Close** until Fax Mode Settings is displayed.
9. Touch **Fax Control**.
10. Select the Line to enter or change, then touch **Change Settings**. Touch **Save** to save any new settings.
 - Send-Header – Polling. You can leave this setting at its default value.
 - Documents for Polling – Auto Delete. Set as desired to delete documents from Mailboxes after polling same.
 - Rotate 90 degrees.
 - Sender ID.
 - Redial Attempts.
 - Redial Interval.
 - Save Undelivered Faxes.
 - Save Cancelled Faxes.
 - Saved Faxes – Auto Delete.
 - Transmission Interval.
 - Batch Send.
 - Manual Send/Receive Default. Select the default setting for manual Fax operations.
 - Auto Switch Attempts.

- Fax Receiving Mode. Leave this setting at Auto Receive for unattended operation.
- Border Limit.
- Auto Reduce on Receipt.
- Tray for Printing Incoming Faxes.
- 2 Pages up on Receipt.
- 2 Sided Print.
- Edge Erase – Top & Bottom Edges.
- Edge Erase – Left & Right Edges.
- Reduce 8.5x11 Original to A4.
- Pseudo-Photo Gradation Mode
- Box Selector - Line Setup. Enable this setting to enable Fax Mailboxes to receive incoming faxes.
- Memory Full Procedure.
- Maximum Stored Pages.
- Mixed Sized Originals Scanning Mode.
- Mailbox Receive Display (Priorities 1 through 3).
- Direct Fax – To use Direct Fax from the PCL driver, make sure this setting is Enabled.

11. When complete, touch **Close** until the System Settings screen is displayed.

LAN Fax (PCL Drivers)FP15

You can facsimile documents directly from your PC in the same way you would print a document. This is known as the LAN Fax.

Initial Setup

Refer to the TCP/IP Peer to Peer (LPR or Standard TCP/IP) Printing topic, in the Print Drivers section, and add the printer to the Windows 2000 or Windows XP desktop using a Standard TCP/IP Port. After the driver has been installed, perform the following steps:

1. Right mouse click on the Printer's icon and select **Properties**.
2. Click the **Options** tab, then click the **Get Information from Printer** button.
3. The **Network Address** box should now be displaying the printer's IP address and a checkmark should appear in the **Enable Bi-Directional Communication** checkbox. Also, the Fax Module listing in the **Items** box should now be displayed as Available.

Adding a Recipient to a Fax Phonebook

1. From the File menu of your program, select **Print** to display the Print dialog.
2. Check that the correct (PCL) printer is selected, and then click **Properties** to display the Properties dialog.
3. On the **Paper/Output** tab, select **Fax** from the **Job Type** drop-down menu. The options on the Fax tab will now be available for your selection.
4. Select the necessary settings on the Fax tab.
5. Click the **Fax Phonebook** button to select your fax recipient or to enter a new recipient.
6. If your recipient is not selectable from an existing Phonebook, select **New...**, select **Individual**, click **OK**, enter the recipient's Name and Fax number, and click **OK**.
7. Click the **Help** button for any additional help you might need.
8. Click **Close** to close the Fax Phonebook dialog, then click **OK**.

Sending the Fax

1. When the Print dialog is displayed, click **OK**.
2. On the Fax Recipient dialog, to send to the previously-entered, new recipient, click **Look Up Phonebook**.
3. Double click the name of the new individual previously entered (in step 6 above) and click **OK**.
Note: Alternatively, you can manually enter in a Name (of up to 30 characters) and a Fax Number.
4. Click **OK**, then **OK** again to send your Fax.

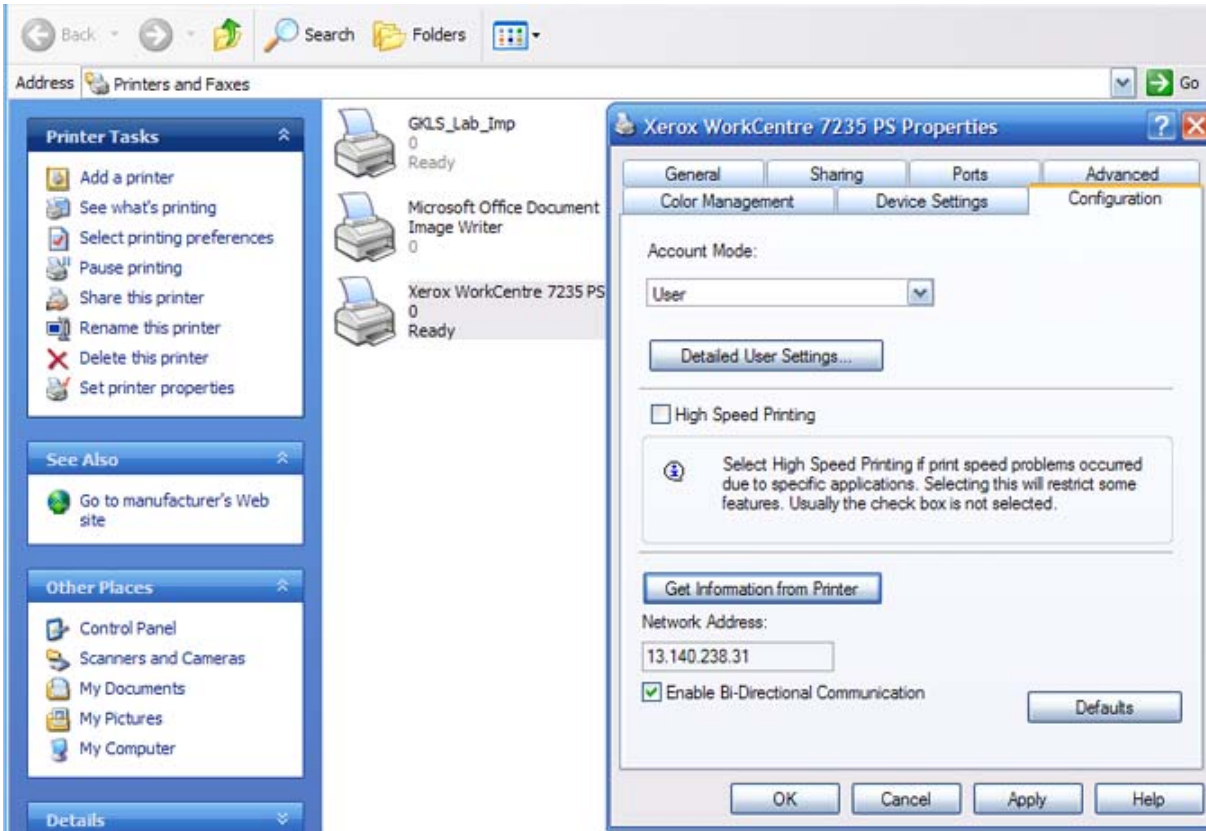
LAN Fax (PostScript Drivers)

You can facsimile documents directly from your PC in the same way you would print a document. This is known as the LAN Fax.

Initial Setup

Refer to the TCP/IP Peer to Peer (LPR or Standard TCP/IP) Printing topic, in the Print Drivers section, and add the printer to the Windows 2000 or Windows XP desktop using a Standard TCP/IP Port. After the driver has been installed, perform the following steps:

1. Right mouse click on the Printer's icon and select **Properties**.
2. Click the **Configuration** tab, then click the **Get Information from Printer** button.
3. The **Network Address** box should now be displaying the printer's IP address and a checkmark should appear in the **Enable Bi-Directional Communication** checkbox. Also the Fax Module listing, in the Installable Options folder on the Device Settings tab, should now be displayed as Available. If it is shown as Not Available, click on the selection and set the Fax Module listing to Available.



Adding a Recipient to a Fax Phonebook

1. From the File menu of your program, select **Print** to display the Print dialog.
2. Check that the correct (PS) printer is selected, and then click **Properties** to display the Properties dialog.
3. On the **Paper/Output** tab, select **Fax** from the **Job Type** drop-down menu. The options on the Fax tab will now be available for your selection.
4. Select the necessary settings on the Fax tab.
5. Click the **Fax Phonebook button** to select your fax recipient or to enter a new recipient.
6. If your recipient is not selectable from an existing Phonebook, select **New...**, select **Individual**, click **OK**, enter the recipient's Name and Fax number, and click **OK**.
7. Click the **Help** button for any additional help you might need.
8. Click **Close** to close the Fax Phonebook dialog, then click **OK**.

Sending the Fax

1. When the Print dialog is displayed, click **OK**.
2. On the Fax Recipient dialog, to send to the previously-entered, new recipient, click **Look Up Phonebook**.
3. Double click the name of the new individual previously entered (in step 6 above) and click **OK**.
Note: Alternatively, you can manually enter in a Name (of up to 30 characters) and a Fax Number.
4. Click **OK**, then **OK** again to send your Fax.

Stopping the Fax (when necessary)

1. Go to the multifunction device and press the **Job Status** button.
2. Select the fax job you wish to cancel, in the **Current and Pending Jobs** list.
3. Press **Cancel** to cancel the job.

Scan to PC (FTP/SMB)

Overview

This feature is designed to convert scanned data to TIFF, JPEG, or PDF format, and then use the FTP or SMB protocol to send the data to a computer (server or workstation) on the network.

Notes:

It is assumed that you purchased the Scanning option to enable Scanning to FTP/SMB with your Device. If you did not, contact your Xerox Representative to purchase this option.

For scanning to SMB, make sure that a shared folder is created for saving scanned data on the network.

For scanning to FTP, make sure that the server is running the FTP service and that you have created a directory within the FTP root to be used as a scan filing location.

Requirements for FTP

When using FTP transmission, one of the following FTP servers, with an account on that server (login name and password), is required.

- Microsoft Windows Server 2003
FTP service of Microsoft Internet Information Server 6.0
- Microsoft Windows NT Server 4.0, Microsoft Windows 2000 Server, Microsoft Windows NT Workstation 4.0, Microsoft Windows 2000 Professional, or Microsoft Windows XP
FTP service of Microsoft Internet Information Server 3.0 or later
- Mac OS X
FTP service of Mac OS X 10.1.5/10.2.x/10.3.8/10.3.9/10.4.2
- Novell NetWare
FTP service of NetWare 5.11 or 5.12

Refer to the manual provided with the software for how to configure the FTP service.

Requirements for SMB

When using SMB transmission, a computer running one of the following Operating Systems, which includes a shared folder, is required.

- Microsoft Windows 98
- Microsoft Windows Me
- Microsoft Windows NT 4.0
- Microsoft Windows 2000
- Microsoft Windows Server 2003
- Microsoft Windows XP

Installation Procedure

This section describes the configuration procedure to use the Scan to PC (FTP/SMB) feature on the machine.

The following two steps are necessary to use the Scan to PC (FTP/SMB) feature.

- Enabling the required ports and Setting TCP/IP
Enable the FTP port and SMB port on the Device, and then set the machine's IP address. If you will be using SMB on a Microsoft Network, make sure to enable either DNS or WINS as part of the TCP/IP configuration. For FTP, make sure that DNS is enabled.
- Preparing an FTP directory or SMB shared folder on the receiving computer (server or workstation).
Create an FTP directory or SMB shared folder to receive scanned documents over the network.

Enabling Ports and Setting TCP/IP

To use Scan to PC (FTP/SMB) you need to enable the applicable Ports (SMB or FTP client) on the Device, and make sure that an IP address has been set on the machine.

Note: The configuration can also be performed using CentreWare Internet Services.

For information on how to use CentreWare Internet Services, refer to the Internet Services section of this guide.

1. Display the System Administrator Menu screen.
 - a. Press the **Log In/Out** button.
 - b. Enter the user ID with the numeric keypad or a keyboard displayed by pressing Keyboard, and select **Confirm**.

Note: The default user ID is "11111". When using the Authentication feature, a password is required. The default password is "x-admin".

- c. Select **System Settings**, then **System Settings** again.
2. When using the SMB protocol, enable the SMB port.
 - a. Select **Network Settings**.
 - b. Select **Port Settings**.
 - c. Select **SMB** and then select **Change Settings**.
 - d. Select **Port Status** and then select **Change Settings**.
 - e. Select **Enabled** then select **Save**.
 - f. Select **Close** until the Port Settings screen is displayed.

3. When using the FTP protocol, enable the FTP client port.
 - a. Select **Network Settings**, then **Port Settings**.
 - b. From the Port Settings screen, select **FTP Client** and then select **Change Settings**.
 - c. Select **Port Status** and then select **Change Settings**.
 - d. Select **Enabled** then select **Save**.
 - e. Select **Close** repeatedly until the **Network Settings** screen is displayed.
4. Set an IP address.

If an IP address is already set, this step is not necessary. Also, in an environment with DHCP or BOOTP, configure the way to obtain an IP address. If the address cannot be obtained automatically, or manual configuration is preferred, configure an IP address, a subnet mask, and a gateway address as follows.

- a. Select **Protocol Settings**.
- b. Select **TCP/IP - Get IP Address** and then select **Change Settings**.
- c. Select one from [DHCP], [BOOTP], [RARP], [DHCP/Autonet] or [Manual], and then select Save. If you select anything other than [Manual], proceed to Step 5.

Note When communicating by TCP/IP make sure to enable the use of a DNS (or WINS for SMB) server. This is done using the machine's Internet Services web pages, displayed by typing the machine's IP address into your web browser (as stated in the TCP/IP Dynamic Addressing Topic of this guide).

- d. On the Protocol Settings screen, select **TCP/IP – IP Address** and then **Change Settings**.
- e. Enter the IP address using the numeric keypad.

Notes

Enter the address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

- f. Select **Save**.
- g. Configure **TCP/IP – Subnet Mask** and **TCP/IP – Gateway Address** using the same process as stated above.

Note

Enter the Gateway address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

Specify the subnet mask by a combination of the numbers 0, 128, 192, 224, 240, 248, 252, 254, and 255. However, you cannot use 0 between non-zero values.

If you do not set the gateway address, enter "0.0.0.0".

5. Select **Close** until the System Settings screen (with an Exit button) is displayed.
6. Select **Exit**.
7. If you changed any settings, the Device will automatically reboot to register and enable your new settings. After the machine is restarted, print out a settings list to confirm that the ports are enabled and TCP/IP is correctly configured.

For information on how to print a settings list, refer to the Settings List topic in the Network Connectivity section of this guide.

Receiving Computer Configuration

The following describes the configuration procedure for the receiving computer (server or workstation).

Using with FTP

1. Ensure that File Transfer Protocol (FTP) services is running on the server or workstation where images scanned by the machine will be stored. Note down the IP address or host name.
2. Create a user account and password for the machine. When a document is scanned, the machine logs in using the account, transfers the file to the server or workstation and logs out. Note down the user account and password details.
3. Create a directory within the FTP root to be used as a scan filing location (repository). Note down the directory path.
4. Test the FTP connection by logging in to the scan directory from a PC with the user account and password. Create a new folder within the directory and then delete the folder. If you cannot perform this function check the user account access rights and the FTP service setup.

Using with SMB

1. Create a shared folder to be used as a scan filing location (repository) for scanned documents. Note the Share Name of the folder and the Computer Name or Server Name.
2. Create a user account and password for the machine with full access rights to the scan directory. Note down the user account and password.
3. Test the settings by attempting to connect to the shared folder from another PC by logging in with the user account and password. Create a new folder within the directory and then delete the folder. If you cannot perform this function check the user account access rights.

Adding the Receiving Computer's Address to the Address Book

To direct your scanned documents to the appropriate receiving computer (server or workstation) you will need to add the Receiving Computer's Address to the machine's Address Book as follows.

1. Press the **Log In / Out button** on the Device's Control Panel.
2. On the keypad enter {11111} or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Address Book**.
6. Select an available Address Number.
7. Touch **Create/Delete**.
8. Touch **Address Type**, then touch **Change Settings**.
9. Select **Server** as the address type, and select **Save**.
10. Select each item to be set, and select **Change Settings**. When each setting is complete, select **Save**.
11. Select **Transfer Protocol** from the settings list and select **FTP** or **SMB** or **SMB (UNC format)**.
12. When FTP or SMB is selected, touch **Server Name/IP Address** on the settings list and enter the Host name or IP Address of the computer (server or workstation) designated to receive scanned files. When entering a Host name, use the fully qualified domain name. For example: myhost.example.com. Do NOT use forward or backward slashes.
13. Select **Shared Name (SMB Only)** to enter in the name of the shared folder on the receiving computer. Enter in the name only, without any backward slashes.
14. Select **Save In** to enter the directory for storing documents. When FTP or SMB is selected, supply the name of the directory (without any forward or backward slashes). When SMB (UNC format) is selected, if available, use the Universal Naming Convention format such as \\host name\shared name\directory name.
15. Select **User Name** and provide the User account name assigned to the directory on the receiving computer.
16. Select **Password** and provide the password to access the User account on the receiving computer.
17. Select **Port Number** to set the communications port number. A sensible selection is **Standard Port**.
18. When done changing and saving settings, touch **Close** to exit to the Setup Menu.
19. Touch **Close** to exit to the System Settings screen.
20. Touch **Exit** to exit to the Main screen.

Using the Scan to PC (FTP/SMB) Feature

After the appropriate Ports have been enabled, TCP/IP has been configured, and the receiving computers address added to the Address Book, the Scan to PC (FTP/SMB) feature can be used as follows.

1. Select **Scan to PC** from the All Services screen.
2. Touch **Transfer Protocol**, select a protocol, and touch **Save**.
3. Note that you can touch the blank lines on the screen and manually enter Server settings, or touch **Address Book**. For SMB you can also browse the Microsoft Network.
4. Select the Receiving Computer (workstation or server) in the list contained in the Address Book and touch **Save**.
5. Place your document in the document handler and press the Control Panel's large, green **Start button**. Progress of the data transfer will be displayed on screen.

Setup and Use of Job Flow Sheets with Mailboxes

Overview

Job flow is a feature for executing a series of registered actions.

The target of a job flow is documents stored in a Mailbox.

Two methods are available: 1) automatically start a job flow when a document is stored in a Mailbox, or 2) select a job flow to manually act on documents stored in a Mailbox.

To start a job flow, you must **link** the job flow sheet to a Mailbox, or to documents within a Mailbox. Documents are then processed as specified on the job flow sheet.

To automatically link document processing in a Mailbox with a job flow sheet, see **Creating a Mailbox and linking to a Job Flow Sheet (for automatic processing)** in this section of this guide.

To manually link document processing in a Mailbox with a job flow sheet, see **Manually linking a Job Flow Sheet to documents in a Mailbox** in this section of this guide.

Features supported for Job Flow

Incoming Mailbox Documents	Available Outgoing processing
Faxes for private polling	Printing, Fax forwarding (up to 100 recipients), iFAX transmission (up to 100 recipients)
Scanned documents	Printing, Fax forwarding (up to 100 recipients), iFAX transmission (up to 100 recipients)
Fax to Mailbox	Printing, Fax forwarding (up to 100 recipients), iFAX transmission (up to 100 recipients)
iFAX received	Printing, Fax forwarding (up to 100 recipients), iFAX transmission depending on System Administration mode settings

Enabling Ports and Setting TCP/IP

In order to use the job flow service, you must enable the SOAP port, the SNMP port, the Internet Service (HTTP) port, and set IP addresses. The procedure for setting the machine is as follows.

Note: The configuration can also be performed using CentreWare Internet Services.

For information on how to use CentreWare Internet Services, refer to the Internet Services section of this guide.

1. Display the System Administrator Menu screen.
 - a. Press the **Log In/Out** button.
 - b. Enter the user ID with the numeric keypad or a keyboard displayed by pressing Keyboard, and select **Confirm**.

Note: The default user ID is "11111". When using the Authentication feature, a password is required. The default password is "x-admin".

- c. Select **System Settings**.
2. Enable the SOAP port.
 - a. Select **System Settings**.
 - b. Select **Network Settings**.
 - c. Select **Port Settings**.
 - d. Select **SOAP** and then select **Change Settings**.
 - e. Select **Port Status** and then select **Change Settings**.
 - f. Select **Enabled** then select **Save**.
 - g. Select **Close** until the Port Settings screen is displayed.

3. Enable the SNMP port.
 - a. Select **SNMP** and then select **Change Settings**.
 - b. Select **Port Status** and then select **Change Settings**.
 - c. Select **Enabled** then select **Save**.
 - d. Select **Close** until the **Port Settings** screen is displayed.
 - e. Enable the **Internet Service (HTTP) port** using the same process as stated above.
 - f. Select **Close** repeatedly until the **Network Settings** screen is displayed.

4. Set an IP address.

If an IP address is already set, this step is not necessary. Also, in an environment with DHCP or BOOTP, configure the way to obtain an IP address. If the address cannot be obtained automatically, or manual configuration is preferred, configure an IP address, a subnet mask, and a gateway address as follows.

- a. Select **Protocol Settings**.
- b. Select **TCP/IP - Get IP Address** and then select **Change Settings**.
- c. Select one from [DHCP], [BOOTP], [RARP], [DHCP/Autonet] or [Manual], and then select Save. If you select anything other than [Manual], proceed to Step 5.

Note: When communicating by TCP/IP make sure to enable the use of a DNS (or WINS for SMB) server. This is done using the machine's Internet Services web pages, displayed by typing the machine's IP address into your web browser (as stated in the TCP/IP Dynamic Addressing Topic of this guide).

- d. On the Protocol Settings screen, select **TCP/IP – IP Address** and then **Change Settings**.
- e. Enter the IP address using the numeric keypad.

Notes:

Enter the address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

When you make an entry mistake, press the <C> (Clear) button and enter again.

When moving to the next value without entering all 3 digits, select [Next].

- f. Select **Save**.
- g. Configure **TCP/IP – Subnet Mask** and **TCP/IP – Gateway Address** using the same process as stated above.

Notes:

Enter the Gateway address in the format "xxx.xxx.xxx.xxx". The "xxx" should be a numeric value in the range from 0 to 255. However, 224 - 255.xxx.xxx.xxx and 127.xxx.xxx.xxx cannot be used.

Specify the subnet mask by a combination of the numbers 0, 128, 192, 224, 240, 248, 252, 254, and 255. However, you cannot use 0 between non-zero values.

If you do not set the gateway address, enter "0.0.0.0".

5. Select **Close** repeatedly until the System Settings screen (with an Exit button) is displayed.
6. Select **Exit**.
7. If you changed any settings, the Device will automatically reboot to register and enable your new settings. After the machine is restarted, print out a settings list to confirm that the ports are enabled and TCP/IP is correctly configured.

For information on how to print a settings list, refer to the Settings List topic in the Network Connectivity section of this guide.

Configuring the SNMP Port

Configure the transport protocol for the SNMP port using CentreWare Internet Services.

1. Start a web browser on a network connected workstation.
2. Enter the machine's IP address in the address box of the browser and press **Enter**.
3. Click the **Properties** tab.
4. Click **Port Status**.
5. Select (place a checkmark in) the UDP check box next to SNMP.
6. Click **Apply**.
7. Enter the System Administrator user ID and password when prompted and click **OK**.
8. Click the **Reboot button** when it displays. If a Reboot button fails to display, click the Status tab and click Reboot Machine from that screen.

Creating Job Flow Sheets

Before you can link a job flow sheet to a mailbox, you need to create at least one job flow sheet. To create a job flow sheet, perform the following steps.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **Setup Menu**.
5. Touch **Job Flow Sheets**.
6. Touch **Create**.
7. Select items to be set from the displayed item list, then touch **Change Settings**. When done, touch **Save**.
8. **Name** – Set the name, up to 128 characters in length, for the job flow sheet.
9. **Description** – Set the description, up to 256 characters in length, for the job flow sheet.
10. **Keyword** – Enter a keyword, up to 12 characters in length, for job flow search.
11. **Send as Fax** – Specify the fax transmission address. You can specify a total of up to 100 addresses, using either Address Numbers or by manual input (New Recipient).
12. **Send as iFAX** – Specify the E-mail address. You can specify the address using either the Address Book, or by manual input (New Recipient).
13. **Send as E-mail** – Specify the E-mail address. You can specify the address using either the Address Book, or by manual input (New Recipient).
14. **Transfer via FTP (1) and (2)** – Specify transfer to an FTP server. You can specify the address using either the Address Book, or by manual entry into the boxes supplied.
15. **Transfer via SMB (1) and (2)** – Specify transfer to an FTP server. You can specify the address using either the Address Book, or by manual entry into the boxes supplied.
16. **Print** – Select **On** (if desired), then specify Print and Finishing settings. This prints a copy of your document after it has been scanned.
17. When done with setting selections, touch **Save**, then touch **Exit** to exit the Job Flow screen.
18. Touch **Close** to exit the Setup Menu screen.
19. Touch **Exit** on the System Settings screen to return to the Main screen.

Creating a Mailbox and linking to a Job Flow Sheet (for automatic processing)

Before you can link a job flow sheet to a mailbox, you need to create at least one mailbox for your use. In the process of creating the mailbox, you can link to your newly created Job Flow Sheet.

To create a mailbox and link it to a Job Flow Sheet (for automatic processing), perform the following steps.

1. Press the **Log In / Out button** on the Device's Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times.
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **Setup Menu** button.
6. Press the **Mailbox** button.
7. When the numbered list of Mailboxes is shown on screen, use the supplied arrow keys to scroll through the list to locate an unassigned Mailbox number.
8. Select an unassigned Mailbox number from the displayed list.
9. Press the rectangular **Create & Delete** button in the lower right corner of the Mailbox selection screen.
10. When the **New Mailbox - Password** screen displays, use the **On** and **Off** buttons on the left-hand side of the screen to determine whether or not a password will be required to access the Mailbox. If **On** is selected, use the Device's numeric keypad to enter in a numbered password of up to 20 digits.
11. Press the **Save** button to save your settings. (To exit the screen, without saving settings, press the Cancel button.)
12. When the Mailbox settings screen displays (after assigning a password), note that you have five setting selections displayed on five numbered horizontal lines. The available selections include: Mailbox Name, Check Password, Delete Documents After Retrieval, Delete Documents with Expire Date, and Link Job Flow Sheet to Mailbox.
13. To assign a name to the Mailbox, press the **Mailbox Name** selection line.

14. Press the rectangular **Change Settings** button.
15. Use the touch screen keyboard to enter in a name for your Mailbox.
16. When finished entering in a name, press the **Save** button in the upper right corner of the screen. (To exit the screen, without saving changes, press the Cancel button.)
17. On the Mailbox settings screen, press any other selection lines of interest and use the **Change Settings** button, as previously described, to access and make setting changes. Use the **Save** button to save your changes.
18. To link this Mailbox with your Job Flow Sheet, touch **Link Job Flow Sheet to Mailbox** and touch **Change Settings**.
19. Touch **Create/Change Link** to set the Mailbox link to a previously-created Job Flow Sheet.
20. Select your Job Flow Sheet from the list and touch **Save**.
21. Touch the **Auto Start** checkbox to place a checkmark in the box for automatic processing of documents as they are received in the Mailbox.
22. To exit the Link Job Flow Sheet to Mailbox screen, press the rectangular **Close** button in the upper right corner of the screen.
23. To exit the Mailbox settings screen, press the rectangular **Close** button in the upper right corner of the screen.
24. To exit the screen that lists all assigned and unassigned Mailboxes, press the rectangular **Close** button in the upper right corner of the screen.
25. To exit the Setup Menu screen, press the rectangular **Close** button in the upper right corner of the screen.
26. To exit the System Settings screen, press the **Exit** button in the upper right corner of the screen.
27. The Main (All Services) screen will now be displayed.

Manually linking a Job Flow Sheet to documents in a Mailbox

1. Touch **Send from Mailbox** on the All Services screen.
2. Select a **Mailbox**, enter the password, then touch **Confirm**.
3. On the **Document List** screen, select a document.
4. Touch **Job Flow Settings**.
5. Touch **Select Job Flow Sheet**.
6. Select a job flow sheet and press the on-screen **Start** button.

Testing Job Flow Sheet operation (for automatic processing)

1. Touch **Scan to Mailbox** on the All Services screen.
2. Select your Mailbox, enter the password, then touch **Confirm**.
3. Place a document in the document handler.
4. Select your scanning options.
5. Press the Control Panel's large, green **Start button**.
6. Check the destination that was specified on your Job Flow Sheet to verify that the document was received.

Scan to PC Desktop

Overview

Scan to PC Desktop is now a core element of the Xerox FreeFlow Digital Workflow collection for the office.

What was once called Scan to PC Desktop Deluxe is now known as Scan to PC Desktop Professional. The components in this solution include: PaperPort Professional 10, OmniPage Professional 14 Office, and Image Retriever Professional 5.2.

What was once called Scan to PC Desktop Standard is now known as Scan to PC Desktop SE. The components in this solution include: PaperPort 10 SE, OmniPage SE 3.0, and Image Retriever SE 5.2.

With either solution, the purpose of PaperPort is to create a program on the networked PC, providing a windows-style desktop for the management of scanned image and text items.

The purpose of OmniPage is to quickly turn PDF files into easily editable word processing and spreadsheet documents.

The purpose of Image Retriever 5.2 is to provide a method to monitor a specified server folder for incoming scanned items. Monitoring of E-mail can also be added in the case of the Professional program edition.

The Scan to PC Desktop solution is typically sold in 25 user licenses packages. For enterprises requiring more than 100 licenses, however, special pricing is available. Consult your Xerox Representative for details.

Preparations

Perform the procedures for setting up this device to Scan to SMB, as stated in the **Scan to PC (FTP/SMB)** section of this guide.

Software Installation Procedure

To install Scan to PC Desktop components on networked workstations, refer to the Scan to PC Desktop Network Installation Guide, Version 7.0. This document should have come with your software license package, and is also available from www.support.xerox.com. If you go to the website, type Scan to PC Desktop in the upper right corner Search box and press **Enter**. Select **Support** under FreeFlow Scan to PC Desktop. Select your language and click **Go**.

Note: The software manufacturer requires PaperPort to be installed before Image Retriever in all cases. Also, during the installation of PaperPort Professional 10, PDF Create! 2.0 must be installed.

Configure Image Retriever 5.2 on Networked Workstations

Referring to the **Scan to PC Desktop: Image Retriever 5.2** documentation, configure Image Retriever 5.2 on the networked workstations.

Testing Scan to PC Operation

1. Perform a scan at the multifunction device.
2. Go to a networked workstation running Image Retriever 5.2.
3. Right click on the **Image Retriever icon** in Windows.
4. Click the **Settings** command to display the Image Retriever Settings dialog.
5. Verify that the SMB Repository (server) UNC is pointing correctly to the server and shared folder.
6. Click **Get Now**.
7. Start the PaperPort program and verify that the scanned item appears on the PaperPort desktop.

Network Scanning (using templates)

Overview

Network Scanning is an optional feature for this multifunction device, available for purchase from your Xerox Sales Representative.

Network Scanning allows a user to scan an original document and convert it to an electronic file. The final destination of the electronic file depends on the template chosen by the user at the device's User Interface.

The template may reside on the device, or may be cached on the device from a pool of templates pulled from a remote server.

The set up of templates, template pool servers, and file repositories is accomplished using Centroware Internet Services (the device's internally-contained web pages) as stated in this section.

Once the scanned file is stored on the pre-determined server, the file can be redirected and manipulated with such software as the following:

SMARTsend scanning services

Built on the Microsoft .NET platform, this server-based software works with new and legacy Multifunction Systems to enable hardcopy documents to be scanned in black and white or color, and converted into such standard digital formats as PDF, JPEG, and TIFF. This Web-based application requires no additional client software installation and uses wizards to simplify workflow (template) creation. Once a workflow, or distribution process, is created, it can be saved as a paper or electronic cover sheet. The cover sheet can be set up to direct the scanned file to a wide variety of destinations. Such destinations include an email address or distribution list, network folder, FTP folder, remote printer, Web URL, Domino.doc, Domino, Microsoft SharePoint and Xerox DocuShare.

Scan to PC Desktop

For information regarding the use of Scan to PC Desktop, including Paperport, OmniPage, and ImageRetriever applications, see the **Scan to PC Desktop** topic in the **Options** section of this guide.

Additional Notes

Network Scanning User Authentication

Authentication can be enabled to prevent unauthorized access to the Network Scanning feature. If Authentication is enabled, users will be prompted to enter a 4 to 12 digit pass code before they can access the Network Scanning feature. For a full description of the Authentication feature refer to the **Security - Authentication** topic in this guide.

Multifunction Device Authentication

If using a SMARTsend server, a valid Windows account must be created on the SMARTsend Server for the device's authentication. The account enables each device to communicate with the SMARTsend server to exchange template information and other configuration data. For account creation instructions, refer to the FreeFlow SMARTsend Installation and Administration Guide.

Template Considerations when using SMARTsend

A single Xerox multifunction device cannot use both CentreWare Network Scanning services and SMARTsend. If legacy CentreWare Network Scanning Services templates need to be utilized within SMARTsend, use the SMARTsend Template Importer to import the desired templates, as stated in the FreeFlow SMARTsend Installation and Administration Guide.

Installation Checklist

Please ensure that the following items are available or have been performed.

1. Ensure the machine is fully functioning on the network prior to installation.
2. Enable the purchased Scanning option. For instructions, refer to the **Enabling Options with Software Keys** topic, in the **Options** section of this guide. Contact your Xerox Sales Representative if you have not purchased the Scanning option.
3. Ensure that the TCP/IP and HTTP protocols are configured on the device and are fully functional. This is required to access CentreWare Internet Services to configure Network Scanning. The Internet Services function is accessed through the embedded HTTP server on the machine and allows System Administrators to configure scan settings by using an Internet browser.

To verify that the TCP/IP and HTTP protocols are correctly configured, print a Settings List as stated in the **Settings List** topic in the Network Connectivity section of this guide.

To configure TCP/IP, refer to the **TCP/IP Configuration** topic in the NOS Selection section of this guide.

To enable HTTP, refer to the **Enable Internet Services (HTTP)** topic in the Network Connectivity section of this guide.

4. Ensure that the **FTP Client** and **SMB** port are enabled on the device. To verify this, print a Settings List as stated in the **Settings List** topic in the Network Connectivity section of this guide.

To enable SMB, refer to **Enabling the SMB Setting at the Device** in the Microsoft (NetBIOS over IP) Networks topic of this guide. To enable FTP, use the same SMB enabling procedure, and simply choose FTP as the port to enable.

5. Note that after configuring a scan filing location (file repository) you need to create at least one template for users to select to scan their documents to the pre-configured repository.

Configure a Scan Filing Location

Scanning with the machine is accomplished through user selection of templates on the device that route scanned jobs to network servers. After storage on the server, the files can be retrieved at any properly configured networked workstation. A dedicated file server is not required to receive scans. A dedicated server is required, however, for the installation and use of SMARTsend software to remotely manage the pool of templates (workflows), displayed locally to device users, if so desired. Scanning is configured on the machine using one of the file transfer options below. Select your method by clicking one of the buttons, below.

FTP (File Transfer Protocol): Requires an FTP service running on a server or a workstation.

SMB (Server Message Block): Available for filing to an environment that supports the SMB protocol.

Configure a Scan Filing Repository using FTP

Installation Checklist

1. Ensure that a File Transfer Protocol (FTP) service is running on the server or workstation where images scanned by the machine will be stored. Write down the IP address or host name.
2. Create a user account and password for the machine. When a document is scanned, the machine logs in using the account, transfers the file to the server or workstation and logs out. Write down the user account and password.
3. Create a directory (folder) within the FTP root to be used as a scan filing location (repository). Write down the directory name.
4. Test the FTP connection by logging into the scan directory from a remote PC using the user account and password. Create a new folder within the directory and then delete the folder. If you cannot perform this function, check the user account access rights and FTP service setup.

Enter the Scan Repository Details via Internet Services

5. At your workstation, open your Web browser and enter the IP address of the machine in the Address or Location field. Press **Enter**.
6. Click the **Print/Scan** tab, then the **Job Templates** hot link.
7. Click the **Display Job Templates Screen** button.
8. Select the **File Repository Setup** radio button.
9. Select Default or a File Repository Setup number in the **File Repository Setup** drop-down menu.
10. Enter a **Name** to describe the File Repository.
11. Select **FTP** for **Protocols**.
12. Enter either an IP Address or Host Name for **Server Name**.
13. Enter **21** for **Port Number**.
14. For **Remote Path**, type in the name of the folder on the remote server that has been set up to receive device scans. Do not use forward slashes.
15. Supply the **User Name** and **Password** for the machine to log into the file server.
16. Re-enter the password in the **Re-enter Password** box.
17. Check the **Remember Password** box, if it is not already checked.
18. Click **Apply**.
19. Enter the administrator User Name and Password and click **OK**. The default is 11111 and x-admin.

Configure General Settings

20. Select the **General Setting** radio button.
21. To print a Confirmation Sheet after every scan job, select **On** from the Confirmation Sheet drop-down menu.
22. Check the **User Name** and **Domain Name** boxes if you want these items to appear on the Job Log. The Job Log works with the Document Management Fields feature and is filed with the scan job.
23. Click **Apply**.
24. Enter the administrator User Name and Password and click **OK**. The default is 11111 and x-admin.

Configure a Scan Filing Repository using SMB

Installation Checklist

1. Create a shared folder to be used as a scan filing location (repository) for scanned documents. Note the Share Name of the folder and the Computer Name or Server Name.
2. Create a user account and password for the machine with full access rights to the scan directory. Write down the user account and password.
3. Test the settings by attempting to connect to the shared folder from another PC by logging in with the user account and password. Create a new folder within the directory and then delete the folder. If you cannot perform this function check the user account access rights.

Enter the Scan Repository Details via Internet Services

4. At your workstation, open your Web browser and enter the IP address of the machine in the Address or Location field. Press **Enter**.
5. Click the **Print/Scan** tab, then the **Job Templates** hot link.
6. Click the **Display Job Templates Screen** button.
7. Select the **File Repository Setup** radio button.
8. Select Default or a File Repository Setup number in the **File Repository Setup** drop-down menu.
9. Enter a **Name** to describe the File Repository.
10. Select **SMB** for **Protocols**.
11. Enter either an IP Address or Host Name for **Server Name**.
12. Enter **445** for **Port Number**.
13. Enter the Share Name in the **Shared Name** box.
14. For **Remote Path**, type in the name of the folder on the remote server that has been set up to receive device scans. Do not use back slashes.
15. Supply the **User Name** and **Password** for the machine to log into the file server.
16. Re-enter the password in the **Re-enter Password** box.
17. Check the **Remember Password** box, if it is not already checked.
18. Click **Apply**.
19. Enter the administrator User Name and Password and click **OK**. The default is 11111 and x-admin.

Configure General Settings

20. Select the **General Setting** radio button.
21. To print a Confirmation Sheet after every scan job, select **On** from the Confirmation Sheet drop-down menu.
22. Check the **User Name** and **Domain Name** boxes if you want these items to appear on the Job Log. The Job Log works with the Document Management Fields feature and is filed with the scan job.
23. Click **Apply**.
24. Enter the administrator User Name and Password and click **OK**. The default is 11111 and x-admin.

Configuring Templates with Internet Services

You need to create at least one template for users to select to scan their documents to the pre-configured repository. This template is often referred to as the Default Template. The template can be created with either Internet Services or SMARTsend software running on a remote template pool server. To create and configure this template with Internet Services, perform the following steps.

1. At your workstation, open your Web browser and enter the IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Print/Scan** tab, then the **Job Templates** hot link.
3. Click the **Display Job Templates Screen** button.
4. Select the **Template** radio button.
5. Click **Create New**.
6. Enter the administrator User Name and Password and click **OK**.
7. Enter a **Template Name** in the box supplied.
8. Type in a **Description**.
9. Select either **Public** or Private for **Repository Type**. Note that the Public selection uses the repository set up under File Repository Setup. Private uses the private server set up here.
10. Select a Filing Policy from the drop-down menu.
11. From the **Job Log** drop-down menu, select whether or not to Enable the Job Log. The Job Log works with the Document Management Field feature, described below, and is filed with the scan job.
12. Place a checkmark in the **Confirmation Sheet** check box to enable that feature. The Confirmation Sheet shows whether the scan was successful or failed, and includes other data that can be useful for troubleshooting.
13. Click **Next**.
14. Use the displayed General Settings, Added Features, Image Quality and DMF (Document Management Field) tabbed dialogs to set the parameters for your scanning template.

Document Management Field (DMF)

This tab enables you to add data fields to the template. The information is filed with your scanned document in the Job Log. The Job Log can then be accessed by third party software and the DMF information retrieved and associated with the scanned file.

- a. Click the **DMF** tab.
 - b. Click Add.
 - c. Refer to the displayed descriptions to set your parameters as desired.
 - d. Click Apply when done.
15. Click **OK**.
 16. To view your Template, click **List**.

Setting up a Remote Template Pool Repository (optional)

1. At your workstation, open your Web browser and enter the IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Print/Scan** tab, then the **Job Templates** hot link.
3. Click the **Display Job Templates Screen** button.
4. Select the **Pool** radio button.
5. For **Protocols**, use the drop-down menu to select the protocol you will be using to communicate with the template pool server.
6. Supply the **Server Name**, and Shared Name, in the case of SMB.
7. Supply the **Port Number**. The default is 21 for FTP and 445 for SMB.
8. For Remote Path, type in the name of the folder on the remote server containing the pool of templates. Do not use forward slashes with FTP or back slashes with SMB.
9. Supply the **User Name** (account name) and **Password** for the device to access the remote server.
Note: For information on creating accounts on the SMARTsend server, refer to the FreeFlow SMARTsend Installation and Administration Guide.
10. Re-enter the password in the **Re-enter Password** box.
11. Check the **Remember Password** box.
12. Check the **Polling Settings** checkbox to set up automatic, timed polling with the template pool server. This will help to assure that the latest scanning templates are available to users of the machine.
13. Click **Apply**.
14. Enter the administrator User Name and Password and click **OK**. The default is 11111 and x-admin.

Testing Network Scanning (using templates)

1. Go to the machine and press the **All Services button**.
2. Press the **Network Scanning** button.
3. See if the template you created is displayed on screen.
4. If it is, press it. If it is not, return to the beginning of this section and repeat the required procedures.
5. Place a document in the document handler and press the **Start button** located to the immediate right of the Control Panel's numeric keypad.
6. On a network-connected PC, open a connection to the repository server, log in, and see if the document arrived in the repository folder.

Web Service (if available)

The Web Service button on the machine, if available, enables users to view Internet or Intranet web servers on the machine's User Interface, and to send scanned files to web servers through job flow sheets, if the server login and password are valid as entered on the job flow sheet. In addition to performing the set up procedure described here, make sure to refer to the **Proxy Server Settings** topic, in the **Network Connectivity** section of this guide, for instructions on setting up Proxy Server parameters (similar to setting up connections for a standard web browser). To set up and use Job Flow Sheets with Mailboxes, refer to that topic in the Options section of this guide.

1. Press the **Log In / Out** button to enter System Administration Mode.
2. On the keypad enter [11111] or the current password. Touch **Confirm** when finished.
3. Touch **System Settings**.
4. Touch **System Settings**, again.
5. Touch **Web Service Settings**.
6. Touch **Server Setup**.
7. Select an unused Web Service Server line.
8. Touch **Change Settings**.
9. Touch **Server Name**, then **Change Settings**.
10. Use the displayed keyboard to enter a Server Name, then touch **Save**.
11. Touch the **URL** line, then **Change Settings**.
12. Use the displayed keyboard to enter a URL for the web server, then touch **Save**.
13. Touch **Close** repeatedly until the **System Settings** screen (with an Exit button) is displayed.
14. Touch **Exit**.

Security – Authentication (by Auditron Administration)

Overview

Users Controlled by Authentication

Authenticated Users

These are users who are registered with the machine. When using a restricted service, authenticated users are prompted to type their user IDs on the authentication screen.

Guest Users

These are users who are permitted to use the machine using the Guest password set by the System Administrator.

Authentication (Auditron) Modes

Off – Users can access any service without restriction. Off is the default Auditron mode for the machine.

Local machine authentication (access) – Local machine authentication uses the user information registered on the machine to manage authentication.

Network authentication (access) – Network authentication uses the user information managed on a remote accounting service to manage authentication.

User information, managed on the remote accounting service, is sent to be registered on the machine. When the user information on the remote accounting service is updated, the updated information must be sent from the remote accounting service to the machine.

Network Authentication allows a unified management of user information for multiple devices.

Remote authentication (access) – Remote authentication uses a remote authentication server to manage user access to the machine. User information is not required to be registered locally on the machine. Note that with remote authentication you cannot have as much individual service restriction as you have with Local machine authentication. To increase control over individual service access, with a system such as Kerberos, for example, you need to use an Authentication Agent.

Note: When registering user information on a remote authentication server, use up to 32 characters for a user ID and up to 128 characters for a password. Note, however, for SMB the password limit is 32 characters.

Xerox Standard Accounting (XSA) – For complete details on XSA refer to the Xerox Standard Accounting topic in the **Options** section of this guide.

Services Managed by User ID Authentication

The services that can be managed by user ID authentication vary depending on the selected Authentication (Auditron) mode. The following tables provide a summary of these managed services for each mode.

When Local Machine Access is enabled

Service	Manageable by Authentication?
Copy	Yes
Print	Yes
Charge Print, Private Print	Yes
Scan Service	Yes
Fax, iFAX	Yes
Direct Fax	Yes
Report/List	No

When Network Access is enabled

Service	Manageable by Authentication?
Copy	Yes
Print	Yes
Charge Print, Private Print	Yes
Scan Service	Yes
Fax, iFAX	Yes
Direct Fax	Yes
Report/List	No

When Remote Access is enabled

Service	Manageable by Authentication?
Copy	Yes
Print	No
Charge Print, Private Print	Yes
Scan Service	Yes
Fax, iFAX	Yes
Direct Fax	No
Report/List	No

Effects of Authentication on Job Flow Sheets and Mailboxes

When Local Machine Access is enabled, even if authentication is not enabled for the copy, fax, scan, or print services, authentication will be required for mailbox and job flow sheet operations.

For full details on the effects of Authentication on Job Flow Sheets and Mailboxes, refer to that topic in the **Authentication and Auditron Administration** section of the Device's User Guide.

Configuring Local machine authentication

When Local Machine Access is enabled, the System Administrator can define pass codes for authorized users (and guests, when the selection is available) to use to authenticate to the system and access restricted services.

Preparations:

1. Ensure the machine is fully functional on the network.
2. Ensure that the TCP/IP and HTTP protocols are configured on the device and fully functional. Refer to those topics in this guide for configuring information as required. This is required to access CentreWare Internet Services to configure Authentication. The Internet Services function is accessed through the embedded HTTP server on the machine and allows System Administrators to configure Authentication settings by using an Internet browser.

At Your Workstation:

1. Open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Select **Auditron Administration** in the list of hot links.
4. Select **Local Machine Access** from the Auditron Mode drop-down list.
5. Place a checkmark in the **Enable** box for each service that you wish to restrict access to. For explanations of each service, click the Help button.
6. Click **Apply** and enter the Administrator User name and password if prompted, then click **Reboot Machine**.
7. If available for selection, enable Guest User authentication from the associated drop-down list.
8. Enter the Guest Password twice in the text boxes supplied.
9. **To configure Auditron settings for each account user**, enter an Account Number in the Account Number box and click **Edit**.
10. Enter the Administrator User name and password if prompted.
11. Fill in the settings for the Auditron user. For explanations of each setting, click the Help button.

Important: Set each Service Feature Access as desired. DO NOT set a Service Feature Access to "No Access," unless you wish to deny user access to that specific feature.

12. Click **Apply**.

Note: You can also use the User Interface at the Device to configure Local machine authentication. The menu path to follow there is: press Log In/Out, enter the Administrator password, touch System Settings, touch Login Setup/Auditron Administration.

Configuring Remote authentication

When Remote Access is enabled, users of the device will be asked to provide a user name and password to be validated by the designated authentication server. If this validation is successful, the machine and any restricted services will be available for individual use.

Preparations:

1. Ensure the machine is fully functional on the network.
2. Ensure that the TCP/IP, with DNS/WINS enabled, and HTTP protocols are configured on the device and fully functional. Refer to those topics in this guide for configuring information as required. This is required to access CentreWare Internet Services to configure Authentication. The Internet Services function is accessed through the embedded HTTP server on the machine and allows System Administrators to configure Authentication settings by using an Internet browser.
3. Ensure the Authentication Server to be used is functional on your network. Refer to your manufacturer's documentation for instructions to complete this task.

At Your Workstation:

1. Open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Select **Auditron Administration** in the list of hot links.
4. Select **Remote Access** from the Auditron Mode drop-down list.
5. Place a checkmark in the **Enable** box for each service that you wish to restrict access to. For explanations of each service, click the Help button.
6. Click **Apply** and enter the Administrator User name and password when prompted.
7. Select the **Remote Authentication Server/Directory Service** folder in the list of hot links.
8. Select **Authentication System**, then select your system from the drop-down list and click **Apply**.

Configure Authentication for Kerberos (Windows 2000)

At your Workstation:

1. If not already running, open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. If not already displayed, click the **Properties** tab.
3. Select the **Remote Authentication Server / Directory Service** folder in the list of hot links.
4. Select **Kerberos Server Settings**.
5. Enter the IP Address of the Primary Server (Domain Controller running the Key Distribution Center service).
6. Enter the IP Address of the Secondary Server (Domain Controller), if necessary.
7. Enter details of the Windows 2000 Domain in the Realm Name box. For example: example.com.
8. Enter details for up to 4 alternate Domain Controllers and backups, if required.
9. Click **Apply**, and supply the Administrator User name and password if prompted.

Configure Authentication for Kerberos (Solaris)

At Your Workstation:

1. If not already running, open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. If not already displayed, click the **Properties** tab.
3. Select the **Remote Authentication Server / Directory Service** folder in the list of hot links.
4. Select **Kerberos Server Settings**.
5. Enter the IP Address of the Primary Server (the server running the Key Distribution Center service).
6. Enter the IP Address of the Secondary Server, if necessary.
7. Enter details for the Realm. For example (in upper case): EXAMPLE.COM.
8. Enter details for up to 4 alternate servers and backups, if required.
9. Click **Apply**, and supply the Administrator User name and password if prompted.

Configure Authentication for SMB

At Your Workstation:

1. If not already running, open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. If not already displayed, click the **Properties** tab.
3. Select the **Remote Authentication Server / Directory Service** folder in the list of hot links.
4. Select **SMB Server Settings**.
5. From the **SMB Server Setup** drop-down menu, select your desired method. The selections include: By Domain Name, By Domain Name and IP Address, and By Domain Name and Server Address.
6. Enter the Domain name (up to 15 characters) in the SMB Server – Domain Name box, for every Domain Controller specified. This entry is required regardless of the selection made from the SMB Server Setup drop-down menu.
7. Enter the IP Address of the Domain Controller in the SMB Server – IP Address box (if By Domain Name and IP Address was selected for SMB Server Setup).
8. Enter the IP Addresses of up to 4 additional Backup Domain Controllers, if applicable.
9. Enter the Server Name (up to 64 characters) in the SMB Server – Server Name box (if By Domain Name and Server Address was selected for SMB Server Setup).
10. Click **Apply**, and supply the Administrator User name and password if prompted.

Configure Authentication for LDAP

Refer to your LDAP server documentation for all of the information that needs to be entered into the Machine's LDAP dialog to set up communications with the LDAP server. At the minimum the Machine will need a login account and password.

The path to the LDAP dialog is as follows:

At Your Workstation:

1. If not already running, open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. If not already displayed, click the **Properties** tab.
3. Select the **Remote Authentication Server / Directory Service** folder in the list of hot links.
4. Select **LDAP Server / Directory Service**.
5. Enter the **Primary Server IP address (or host name)** in the box supplied.
6. Leave the **Primary Server Port Number** at its LDAP default of 389.
7. Decide whether or not to use encryption (**Authentication with SSL**) when accessing the LDAP server.
8. For **Authentication Method**, choose either Direct Authentication or Authentication of User Attributes. Direct Authentication sets authentication with the LDAP server with the user name and password entered by the user.
9. In the **Search Login Name** box, enter the machine's login name for accessing the LDAP server.
10. In the **Search Password** and **Re-enter Search Password** boxes, enter the machine's password for accessing the LDAP server.
11. In the Referral box, use the selection arrow to decide whether or not to return a referral to another server if the distinguished name being searched is not in the initial directory's tree.
12. In the Referral Hop Limit box, enter the maximum number of referrals to follow in a row.
13. For **Server Application**, Microsoft Active Directory, Novell NetWare, IBM Lotus Domino, or Other Applications.
14. Enter other appropriate configuration information into the boxes supplied. Note that the default setting for Directory Service for Address Book is **Use**, which allows LDAP to be used with machine options that can benefit from LDAP address lookups (such as E-mail).
15. Click **Apply**, and supply the Administrator User name and password if prompted.

Configuring Network authentication (by a remote Accounting server)

Network authentication uses the user information managed on a remote Accounting server to manage authentication (access) to available machine services.

Enable Network Authentication

To enable Network Authentication for use with this Device, at your networked workstation, perform the following steps:

1. Open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Select **Auditron Administration** in the list of hot links.
4. Select **Network Access** from the Auditron Mode drop-down list.
5. Place a checkmark in the **Enable** box for each service that you wish to restrict access to. For explanations of each service, click the Help button.
6. From the **Check User Details** drop-down menu, select either On or Off (keep logon records). The On selection will verify user information. When Off (keep logon records) is selected, User ID and Account ID must be entered at the Device, but user information will not be checked. A logon record will be kept by the Device, however.
7. Click **Apply** and enter the Administrator User name and password when prompted.
8. Click the **Reboot Machine** button, then **OK**, when prompted.
9. Refresh your web browser, then click on the **User Details Setup** link to set the Store User Details setting. Note that you can set either NVM or hard disk as the destination for saved authentication information. User Details Setup also allows you to configure the characteristics of the login prompt for User Authentication.

Configure communications between the Accounting server and the device

Refer to the remote Accounting server manufacturer's documentation for the specific procedures to follow to configure communications between the server and the multifunction device.

The server will contact the device based upon Accounting service parameters set up at the server, such as the device's IP address and polling frequency.

Required network communications and server settings will be stated by the server's manufacturer.

Sample list of set up requirements for Equitrac's Accounting service

- Enable TCP/IP and HTTP on the multifunction device.
- Set up a static or reserved DHCP IP address for the device.
- Enable TCP/IP port 80 communications at the device.
- Download the Controller Interface for Xerox from the Equitrac web site.
- Install the Controller Interface for Xerox at the server.
- Verify that you have purchased a license for the Controller Interface for Xerox, as well as a license for each device communicating with the server.
- Register each multifunction device at the server (using the device's IP address for identification).

Enable the Accounting option in workstation print drivers

Use the Windows Add Printer dialogs to add the multifunction device's print driver to individual, networked workstations. For instructions, if needed, refer to the Print Drivers section of this guide.

In the print driver default setting dialogs, locate and then enable the Accounting option. This step assures that print jobs from individual workstations will be recognized by the authentication system, rather than being unrecognized and deleted by the multifunction device.

For Windows operating systems, the default setting dialogs are accessed by right mouse clicking on the printer's icon in the Printers window for Windows 98, Me, NT4, 2000, or the Printers and Faxes window for Windows XP. Select **Properties** from the displayed menu, then locate and enable the Accounting option.

Encryption Service Overview

Note: You may have to purchase the Security Kit option to enable encryption with your Device. If you cannot generate a self-signed certificate, or enable SSL/TLS Communication, as stated under Configuration of HTTP Communication Encryption, in this section, contact your Xerox Representative to purchase the option.

Types of Encryption Services Available

The communication data between the machine and computers on a network can be encrypted.

Encryption for the machine, as described in this section, is set up using Internet Services. Internet Services are a series of Web (HTML) Pages located within the Device enabling network communication settings to be conveniently configured from a web browser running on a remotely located workstation.

For help with specific terminology as encryption is being set up on the machine, refer to the CentreWare Internet Services online help.

Note that the quickest and easiest, although not the most “trusted,” method to use to set up initial HTTP communication encryption is the generation of a self-signed certificate (as stated under Configuration of HTTP Communication Encryption, in this section).

Upon the creation of at least one certificate on the machine, and the rebooting of the machine, once the web browser application has been refreshed, a **Certificate Management hot link** will become available under the **PKI Settings** folder on the Properties page of Internet Services. Use this link to manage all the digital certificates, of various types, stored on the machine.

Encryption of HTTP Communications from a Client to the Machine (Server Certificate)

The SOAP port, Internet service (HTTP) port, IPP port, and WebDAV port use the HTTP server of the machine.

The SSL/TLS suite of protocols is used in the encryption of HTTP communications from a client to the machine. A user of a client workstation accesses the machine’s HTTP server by typing **https://**, followed by the IP address of the machine, into the Address box of a web browser application. The machine then offers the client a Digital Certificate, which the client accepts (after reviewing the validity of same). Upon acceptance of the Digital Certificate, a Public Key exchange takes place, encryption algorithms are agreed upon between the two parties, and the client uses the server’s Public Key to communicate with the server using digitally signed and encrypted data.

Digital certificates imported from a Certificate Authority, or self-signed certificates created with CentreWare Internet Services, can be used as SSL/TLS certificates on the machine’s HTTP server.

Encryption of HTTP Communications from the Machine to a Remote Server (Client Certificate)

The SSL/TLS suite of protocols is used to encrypt HTTP communications with a remote server.

No client certificate is typically required for this activity. However, if a remote server is set to require an SSL client certificate, an SSL/TLS client certificate must be registered on the machine.

Digital certificates imported from a Certificate Authority can be used as SSL/TLS certificates on the machine’s HTTP server.

Note: When Remote Server Certificate Validation is enabled, under SSL/TLS Settings in Internet Services, the root certificate of the remote server must be registered to the machine (imported with Internet Services) to verify the Digital certificate of same.

E-mail Encryption/Digital Signature

S/MIME certificates, imported from a Certificate Authority (in PKCS7 format), can be used on the machine's HTTP server for E-mail Encryption.

Note: To import S/MIME certificates, use the Certificate Management hot link on the Properties Page of CentreWare Internet Services.

Encryption/Digital Signature of Scanned Files (PDF/DocuWorks Documents)

While no digital signatures are required to encrypt PDF and DocuWorks documents, these documents can be signed with imported PKCS12 Digital signatures.

Note: DocuWorks is Document Handling software from Fuji Xerox.

When adding digital signatures to PDF or DocuWorks documents, scan file certificates imported to the machine from a Certificate Authority, are typically used.

To import PKCS12 scan file certificates, use the Certificate Management hot link on the Properties Page of CentreWare Internet Services.

Configuration of HTTP Communication Encryption

Installation Overview

Configuration on the Machine

Two methods are available depending on the type of certificate.

- Create a self-signed certificate on the machine with Internet Services, and enable HTTPS. This method is used primarily for Server certificates.

- Enable HTTPS, and import a signed certificate from a Certificate Authority, using the Certificate Management hot link on the Properties Page of CentreWare Internet Services. **Note:** To see this hot link, at least one certificate must have been created and stored on the machine. This is one of the purposes for creating a self-signed certificate.

Configuration on a Computer

Use IP addresses beginning with "https" in web browser applications.

Configuring certificates with CentreWare Internet Services

Two methods are available to configure certificates with CentreWare Internet Services: creating a self-signed certificate (for SSL server), and importing a signed certificate from a Certificate Authority.

This section describes how to create a self-signed certificate (for SSL server).

Important

When performing SSL communication using a self-signed certificate created on the machine, or a certificate with which the character code is indicated by UTF-8, the following phenomena occur.

If Internet Explorer is used with Windows 98E or earlier, the issuer/issuing place of the certificate will not be displayed correctly.

SSL connection will not be made if Internet Explorer is used with Mac OS X 10.2 or later. This is because the operating system cannot recognize the character code (UTF-8) of the certificate. Use Netscape 7 in the above-mentioned OS environments.

For information on how to import created certificates, refer to the CentreWare Internet Services online help.

Important

When importing a certificate, if the same certificate has been already registered in [Local Device] or [Others], the certificate cannot be imported. Delete the registered certificate before importing.

1. Start a web browser.
2. Enter the machine's IP address, beginning with "https," into the Address box of your web browser, and press the **Enter** key.

Example:

https://192.168.1.1/

3. Click the **Properties** tab.
4. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.
5. Click **SSL/TLS Settings**.
6. Generate a certificate.
 - a. Click the **Generate Self-Signed Certificate** button.
 - b. Set the size of the Public Key as necessary.
 - c. Set Issuer as necessary.
 - d. Click the **Generate Certificate** button. When a screen to enter the user name and password appears, enter the System Administrator user ID and password into User Name and Password, and then click **OK**.

Note: The default user ID is "11111" and the default password is "x-admin".

7. Refresh the web browser.
8. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.
9. Click **SSL/TLS Settings**.
10. Select the **Enable** check box for **SSL / TLS Server Communication**.
11. Check the **SSL / TLS Port Number**.

Note: The correct port to use is 443. Do not use the numbers of any other ports.

12. Apply the settings.
 - a. Click **Apply**.
 - b. The right frame on the web browser will change to the machine reboot display.
 - c. Click **Reboot Machine**. The machine will be unavailable for a short period of time.
 - d. Refresh the web browser to see if the **Certificate Management hot link** is now available under the **PKI Settings** folder on the Properties page of Internet Services. Use this link to manage all the digital certificates, of various types, stored on the machine.

Configuration on a Computer

The following describes the configuration for a computer.

When encrypting communication between a web browser and the machine, enter an address beginning with "https" instead of "http" into the address column in the web browser.

Example of the IP address entry

https://192.168.1.1/

When encrypting IPP communications (Internet printing), enter an address beginning with "https" instead of "http" as the URL of a printer that is selected from [Add Printer].

For detailed information on the settings, refer to the manual on the CD-ROM of the Driver CD Kit.

No settings are needed to use the SOAP port and WebDAV port.

Configuration of E-mail Encryption/Digital Signature

Installation Overview

Configuration on the Machine

Import an S/MIME certificate from a Certificate Authority (in PKCS7 format), then configure the certificate on the machine using CentreWare Internet Services.

Configuration on a Computer

No special configuration is needed for remote computer receipt of encrypted e-mail. For sending encrypted e-mail to the machine, however, follow the Configuration on a Computer information which is included at the end of this E-mail Encryption topic.

Configuring S/MIME certificates with CentreWare Internet Services

To configure S/MIME certificates with CentreWare Internet Services, first enable HTTP communications (as stated under **Configuration of HTTP Communication Encryption** in this section). Next, import an S/MIME certificate from a Certificate Authority (in PKCS7 format). Finally, enable S/MIME.

1. Start a web browser.
2. Enter the machine's IP address, beginning with "https," into the Address box of your web browser, and press the **Enter** key.

Example:

https://192.168.1.1/

3. Click the **Properties** tab.
4. Confirm that the **Machine's E-mail Address**, under the **Description** hot link, is filled in. Also note that to use E-mail with this machine, E-Mail has to be enabled and configured as stated in the Scan to E-mail section of this guide.
5. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.
6. Click **Certificate Management**. Note: To see this hot link, at least one certificate must have been created and stored on the machine. To create a self-signed certificate, if necessary, follow the instructions for **Configuration of HTTP Communication Encryption**.
7. Import a certificate.

Important: When importing a certificate, if the same certificate has been already registered in [Local Device] or [Others], the certificate cannot be imported. Delete the existing certificate before importing the new one.

- a. Enter the **Password**.
- b. Enter the **Re-enter Password**.
- c. Enter a file name for the file you want to import, or select the file to be imported by clicking the **Browse** button.
- d. Click the **Import** button. When a screen to enter the user name and password appears, enter the System Administrator user ID and password into **User Name** and **Password**, and then click **OK**.

Note: The default user ID is "11111" and the default password is "x-admin".

8. Refresh the web browser.
9. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.
10. Configure the certificate.
 - a. Click **Certificate Management**.
 - b. Select [Local Device] for **Category**, [S/MIME] for **Certificate Purpose**, and then click the **Display the List** button. If necessary, enter the System Administrator User Name and Password and click **OK**.
 - c. Place a check mark in the box in front of the Certificate you wish to view details for.
 - d. Click the **Certificate Details** button.
 - e. Click the **Use this certificate** button.
 - f. Click **Reboot**. The machine will reboot and the setting values will be reflected.
11. Refresh the web browser.
12. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.

13. Click **SSL/TLS Settings**.
14. Select the **Enable** check box for **S/MIME Communication**.
15. Apply the settings.
 - a. Click **Apply**.
 - b. The right frame on the web browser will change to the machine reboot display.
 - c. Click **Reboot Machine**. The machine will be unavailable for a short period of time.
16. Configure the settings for S/MIME.
 - a. Refresh the web browser.
 - b. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.
 - c. Click **S/MIME Settings** and set the following items.

Message Digest Algorithm

Select a message digest algorithm from [SHA1] or [MD5].

Contents Encryption Method

Select a contents encryption method from [3DES], [RC2-40], [RC2-64], or [RC2-128].

Certificate Auto Store

Click the checkbox to automatically save an S/MIME certificate attached to an e-mail received from an address registered in your address book.

Receive Untrusted E-mail

Decide whether or not you wish to receive untrusted E-mail.

Receive Untrusted iFAX

Decide whether or not you wish to receive untrusted iFAXes.

Digital Signature - Outgoing E-mail

Decide whether or not to add a digital signature to outgoing E-mail, and the method to use if a signature is desired.

Digital Signature - Outgoing iFAX

Decide whether or not to add a digital signature to outgoing iFAXes, and the method to use if a signature is desired.
 - d. Click the **Apply** button.

Configuration on a Computer

The following describes the configuration for a remote, networked computer.

Sending scanned data by S/MIME encrypted E-mail from the machine to a computer

An S/MIME certificate MUST be imported, configured, and stored on the machine as stated in this section under Configuring S/MIME certificates with CentreWare Internet Services.

When importing the S/MIME certificate, make sure that a root certificate is included for use with the Supported E-mail applications shown below.

Receiving E-mail with S/MIME digital signature from the machine

No settings are required on a recipient computer.

Sending S/MIME encrypted e-mail by E-mail printing from a computer to the machine

It is necessary to register the S/MIME certificate of the machine on the computer.

There are two methods to set an S/MIME certificate of the machine on the computer:

Sending e-mail with S/MIME digital signature from the machine to the computer

To send e-mail with an S/MIME digital signature from the machine, configure to attach the digital signature when sending E-mail in the [Digital Signature - Outgoing E-mail] settings.

Exporting an S/MIME certificate to the computer using CentreWare Internet Services and registering the exported S/MIME certificate in the certificate storage location of the E-mail application.

Note that the exporting of certificates is accomplished using the Certificate Management hot link under PKI Settings on the Properties page of Internet Services. For information on how to export a certificate, refer to the CentreWare Internet Services online help. For information on how to register a certificate in an E-mail application, refer to the manuals provided with the E-mail application.

Sending E-mail with S/MIME digital signature from a computer to the machine

It is necessary to register a personal certificate of a sender's E-mail address, an intermediate certificate authority certificate of the personal certificate, and a root certificate on the machine.

For information on how to import a certificate, refer to the CentreWare Internet Services online help.

Supported E-mail applications

E-mail applications that can send and receive E-mail to and from the machine are as follows:

Outlook 2000/2002/2003

Outlook Express 6

Netscape 7.x

Configuration of Scan File Signatures (PDF/DocuWorks Documents)

Installation Overview

Configuration on the Machine

Import a certificate from a Certificate Authority (in PKCS12 format), then configure the certificate on the machine using CentreWare Internet Services.

Configuration on a Computer

Prepare for verification of the PDF or DocuWorks signature.

Configuring Scan File certificates with CentreWare Internet Services

To configure certificates with CentreWare Internet Services, first enable HTTP communications (as stated under **Configuration of HTTP Communication Encryption** in this section). Next, import a certificate from a Certificate Authority (in PKCS12 format). Finally, set the certificate as a scan file certificate.

1. Start a web browser.
2. Enter the machine's IP address, beginning with "https," into the Address box of your web browser, and press the **Enter** key.

Example:

https://192.168.1.1/

3. Click the **Properties** tab.
4. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.
5. Click **Certificate Management**. Note: To see this hot link, at least one certificate must have been created and stored on the machine. To create a self-signed certificate, if necessary, follow the instructions for **Configuration of HTTP Communication Encryption**.
6. Import a certificate.

Important • When importing a certificate, if the same certificate has been already registered in [Local Device] or [Others], the certificate cannot be imported. Delete the existing certificate before importing the new one.

- a. Enter the **Password**.
- b. Enter the **Re-enter Password**.
- c. Enter a file name for the file you want to import, or select the file to be imported by clicking the **Browse** button.
- d. Click the **Import** button. When a screen to enter the user name and password appears, enter the System Administrator user ID and password into **User Name** and **Password**, and then click **OK**.

Note: The default user ID is "11111" and the default password is "x-admin".

7. Refresh the web browser.
8. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.

9. Configure the certificate.
 - a. Click **Certificate Management**.
 - b. Select [Local Device] for **Category**, [Scan File] for **Certificate Purpose**, and then click the **Display the List** button.
 - c. Place a check mark in the box in front of the Certificate you wish to view details for.
 - d. Click the **Certificate Details** button.
 - e. Click the **Use this certificate** button.
 - f. Click **Reboot**. The machine will reboot and the setting values will be reflected.

10. Configure the settings for PDF/DocuWorks Signatures.

- a. Refresh the web browser.
- b. Click [+] on the left of **PKI Settings** (Public Key) to display the items in the folder.
- c. Click **PDF/DocuWorks Security Settings** and then set the following items.

PDF Signature

Select the setting for PDF Signature from [Do not add signature], [Always add visible signature], [Always add invisible signature], or [Select during send].

DocuWorks Signature

Select the setting for DocuWorks Signature from [Do not add signature], [Always add signature], or [Select during send].

- d. Click the **Apply** button.

Configuration on a Computer

The following describes the configuration for a remote computer.

Sending a DocuWorks security certificate file from the machine to a computer

It is necessary to register a personal certificate of a person to whom the data is disclosed on the machine, and then register the certificate to the address book.

When registering a personal certificate on the machine, the root certificate should be included in the personal certificate.

For information on how to import a certificate, refer to the CentreWare Internet Services online help.

Sending a PDF or DocuWorks signature file from the machine to a computer

Confirm if the root certificate of the certificate for the scan file signature of the machine is registered on the recipient's computer.

Security – Hard Disk Overwrite

This procedure enables the System Administrator to set parameters for the automatic erasure of sensitive data from the machine's hard disk.

Note: It is assumed that you purchased the Security option to enable this feature. If you did not, contact your Xerox Representative to purchase the option.

1. Press the **Log In / Out** button on the Device's Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Touch **Confirm**.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Touch **Common Settings**.
7. Touch **Other Settings**.
8. Select **Overwrite Hard Disk** from the displayed item list. Use the up and down selection arrows, if necessary, to display this selection.
9. Touch **Change Settings**.
10. Select either **1 Overwrite** or **3 Overwrites**. Note that the 3 Overwrites selection is more secure.
11. Touch **Save**.
12. Touch **Close** several times to return to the System Settings screen, with an Exit button.
13. Touch **Exit** to return to the Main screen.

Security – Digital Watermark

This procedure enables the System Administrator to set parameters for the inclusion of a Digital Watermark as the background for any documents that are copied or printed on this, or another identical model machine.

Note: It is assumed that you purchased the Security option to enable this feature. If you did not, contact your Xerox Representative to purchase the option.

1. Press the **Log In / Out** button on the Device's Control Panel.
2. Press the **"1"** key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Touch **Confirm**.
4. Press the **System Settings** button (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings** button.
6. Touch **Common Settings**.
7. Touch **Digital Watermark**.
8. Touch **Digital Watermark Control**.
9. Touch **Digital Watermark Detection**, then **Change Settings**, set to **On**, then touch **Save** and **Close**.
10. Touch **Digital Code Settings**.
11. Touch **Custom Text**, then **Change Settings**, enter a text string, then touch **Save** and **Close**.
12. Touch **Force Digital Watermark**. Touch **Copy Job** (or other selections), then **Change Settings**, set to **On**, then touch **Save** and **Close**.
13. Touch **Digital Watermark Defaults**. Touch **Duplication Prevention Code**, then **Change Settings**, touch **Embed**, then touch **Save** and **Close**.
14. Touch **Close** several times to return to the System Settings screen, with an Exit button.
15. Touch **Exit** to return to the Main screen. **Note:** The machine will reboot.
16. Place a copy in the document handler of the machine and press the **Start** (large green) button.
17. Place the copy just made into the document handler of the same, or an identical model, machine, and attempt to make a copy. Note that copying of this document is prohibited.

Security – Secure Print

This feature directs the printing of confidential documents, or documents which should not be seen by third parties, to a User Account on the machine. The user can then access his or her Account, with a numeric password, at the device, and privately print out the stored documents. This feature is set up on the machine with the following procedure.

1. Press the **Log In / Out** button on the Device's Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Touch **Confirm**.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Touch **Login Setup / Auditron Administration**.
7. Touch **Create / Check User Accounts**.
8. Create an account and a numeric password. Touch **Save** and then **Close**.
9. Touch **Charge / Private Print Settings**.
10. Select **Receive Control** and touch **Change Settings**.
 - a. Select Print Auditron Settings.
 - b. Select Print Job for Job Login Success.
 - c. Select Cancel Job for Job Login Failure.
 - d. Select Cancel Job for Job without User ID.
11. Touch **Save**.
12. Touch **Close** several times to return to the System Settings screen, with an **Exit** button.
13. Touch **Exit** to return to the Main screen.

14. Test the operation of the feature from a print driver installed on a networked workstation.
 - a. Open a document to print from the workstation.
 - b. Select print in your software application, select the Printer, then select **Properties**.
 - c. On the **Paper / Output** tab, select **Secure Print** as the **Job Type**.
 - d. From Secure Print **Settings...**, enter your User ID (account on the printer) and numeric password.
 - e. Click **OK** on successive driver screens until the job prints.
 - f. Go to the printer and press the **Job Status** button.
 - g. Press the **Stored Documents** tab.
 - h. Press Secure Print.
 - i. Select your job and press Document List.
 - j. Enter your password when prompted and press Confirm.
 - k. Select your job, press Print and respond to the on-screen prompt.
 - l. Press Close several times, when done, to return to the Main screen.

Xerox Standard Accounting

Overview

When enabled, Xerox Standard Accounting (XSA) tracks the numbers of Copy, Print, Network Scanning, E-mail, Server Fax, Internet Fax and Embedded Fax jobs (when these features are installed on the machine), for each user. Usage limits can also be applied to users to restrict the total numbers of copy, print, fax and scan jobs that a user can perform. Administrators can print a report which contains all XSA data.

XSA is set up through CentreWare Internet Services, the machine's HTTP pages displayed on your web browser. Administrators must create accounts and specify limits before users are authorized to access the machine.

When XSA is set up, users must enter their account details at the machine to use the device. When they have finished their job, their XSA allocation is reduced by the number of prints, copies or scans performed. When XSA is enabled, users must enter their account details in the printer driver to print documents from their workstations.

The XSA feature is mutually exclusive from any other accounting feature. If XSA is enabled at the device, you cannot enable Foreign Device Interface, Auditron or Network Accounting.

Each device supports unique XSA User IDs and Group Accounts.

All user IDs must be assigned to one or more group accounts.

Note: The XSA settings and account data are stored in the machine. It is strongly recommended that you back up the settings and data regularly using the Cloning hot link available under the XSA folder of Internet Services as described in this section. Should the machine lose your XSA data and settings you can restore them from the backup file that you produced by the Cloning process.

Installation Checklist

Before starting the installation procedure, please ensure the following items are available or have been performed.

1. Ensure that your device is fully functioning on the network.
2. Ensure that the TCP/IP and HTTP protocols are configured on the device and fully functioning. This is required to access CentreWare Internet Services to configure Xerox Standard Accounting. The Internet Services function is accessed through the embedded HTTP server on the machine and allows System Administrators to configure XSA with a web browser.

To verify that the TCP/IP and HTTP protocols are correctly configured, print a Settings List as stated in the **Settings List** topic in the Network Connectivity section of this guide.

To configure TCP/IP, refer to the **TCP/IP Configuration** topic in the NOS Selection section of this guide.

To enable HTTP, refer to the **Enable Internet Services (HTTP)** topic in the Network Connectivity section of this guide.

Enable Xerox Standard Accounting (from Internet Services)

At your Workstation

1. Open your Web browser and enter the TCP/IP address of the machine in the Address bar. Press **Enter**.
2. Click the **Properties** tab.
3. Select **Auditron Administration**.
4. Select **Xerox Standard Accounting** from the Auditron Mode drop-down list.
5. Place a checkmark in the Enable box for each service that you wish to restrict access to. For explanations of each service, click the Help button.
6. Click **Apply** and enter the Administrator User name and password when prompted (default of 11111 and x-admin).
7. Click **OK**.
8. Click the **Reboot Machine** button when it displays on screen.

Create a Group Account

1. On the Properties tab of Internet Services, click the **Xerox Standard Accounting** folder in the directory tree.
2. Click the **Group Accounts** link to create a new group account.
3. In the Group Accounts Account ID box, enter an ID for the new group account (for example 001). The Group Account can be numeric values up to a maximum of 32 characters. Group Account ID's must be unique.
4. Enter a name for the group account in the Account Name box (for example Xerox). The group name can be alphanumeric characters to a maximum of 32 characters. The Group Account name must be unique.
5. Click **Apply**. The account will now be available in the Group Accounts list. Note that you may have to refresh your browser, or click another link, then click on Group Accounts again, to see the new group.

Create a User Account and Set Usage Limits

Note: At least one group account must be created before you create user accounts.

1. On the Properties tab of Internet Services, click the **Xerox Standard Accounting** folder in the directory tree.
2. Click the **Manage Accounting** link.
3. Click the **Add New User** link.
4. Enter an ID for the user. The user ID can contain alphanumeric characters to a maximum of 32 characters (for example: A10). User ID's must be unique.
5. Enter the user name (for example Jane Smith). The user name can contain alphanumeric characters to a maximum of 32 characters. User names must be unique.
6. Specify the usage limits for this account in the **User Limits** boxes. The maximum value for each limit is 9999999.
7. Click the **Apply** button when you have finished setting the usage limits.

Maximum Usage Limits and Resetting Individual Usage Limits

The first time a user logs into the device after they have reached their maximum usage limit, a message displays on the user interface. The message notifies the user that they have reached their limit for the feature. Users will not be unable to use the feature until their limit is reset.

If the user performs a copy job at the machine, and mid way through the job their limit is exceeded, the job will not continue.

If the user performs a scan job at the machine, and mid way through the job their limit is exceeded, the job will be cancelled.

If the user's limit is reached before a print job is completed, the machine will notify the user that their limit has been reached. The job will be deleted from the print queue. The job may run over due to sheets committed to the paper path.

Note: The system administrator has unlimited access to the machine.

To Reset User Limits (if necessary)

1. On the Properties tab of Internet Services, click the **Xerox Standard Accounting** folder in the directory tree.
2. Click the **Manage Accounting** link.
3. Place a checkmark in the box for the desired User ID.
4. Click **Limits and Access**.
5. Enter the new **User Limit**, check the **Reset** box, and click **Apply**.

Using XSA at the machine

When you enable XSA, users must enter a valid user name at the machine to access any services to which access restriction has been applied. Refer to **Enable Xerox Standard Accounting** in this section for the specific service restricting procedure.

At the Machine

1. Press the **All Services** button, if necessary, to display all the available service buttons.
2. Press any button representing a service to which restricted access has been applied.
3. When the “Press the Log In / Out button” message displays on screen, press the **Log In / Out button**.
4. Enter a User ID and touch **Confirm**.

Note: If the User is a member of more than one Group Account, he or she will be asked to select the account that they wish to log into.

5. When the User is logged in, the selected service screen will be displayed. The User can now use that service, with usage tracked by XSA.

Resetting Usage Data

At your Workstation

1. Open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the **Xerox Standard Accounting** folder in the directory tree.
4. Click the **Report and Reset** link.
5. To reset all usage data to zero, click the **Reset Usage Data** button.
6. Click **OK** to confirm.

WARNING! Do not click the Reset to Default button unless you intend to delete all users, accounts and usage data from your machine.

Print a Usage Report

At your Workstation

1. Open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the **Xerox Standard Accounting** folder in the directory tree.
4. Click the **Report and Reset** link.
5. Click the **Generate Report** button.
6. Follow any additional displayed prompts to save the XSA Report.csv (comma separated value) file to your workstation.

Enable XSA in your Print Drivers

Refer to the driver documentation for the steps to follow to enable XSA in your print drivers.

Backing Up XSA data and settings and Cloning to another device

The Cloning feature enables you to copy settings, including XSA settings and account information, to a file on your workstation or Server. You can then use this file to restore the data and settings on the same machine or to clone other machines. You can only clone XSA settings to another Xerox device that supports the XSA feature.

Check that the device you want to clone settings to supports XSA

1. At a networked workstation, open your web browser and enter the TCP/IP address of the machine that you want to clone to. Press **Enter**.
2. Click the **Properties** tab.
3. See if Xerox Standard Accounting is shown in the directory tree. If it is not, you cannot clone to this machine.
4. Click the **Xerox Standard Accounting** folder in the directory tree.
5. From the display of available hot links, verify that **Cloning** is among them.

To make a Back-up file

1. At your workstation, open your web browser and enter the TCP/IP address of the machine with the settings that you want to copy, in the Address bar. Press **Enter**.
2. Click the **Properties** tab.
3. Click the **Xerox Standard Accounting** folder in the directory tree.
4. Select **Cloning**.
5. From the display of available groups, select the settings that you wish to clone. To clone all features, select **Clone**, or to customize the configuration file disable any of the features by clicking the checkboxes next to the feature(s) and then select **Clone**.
6. Enter the current administrator User name and password, if prompted. The default is 11111 and x-admin.
7. Right-click on the .dlm link that appears and select **Save Target As**.
8. A dialog box will prompt you to specify and name and location for the cloned file. Ensure the extension reads .dlm.
9. Click **Save**. The .dlm file can now be used to restore the information to the same machine or to clone other machines.

To Restore Settings or Clone Settings to another Machine

Note: This procedure will cause the machine to reboot and will be unavailable over the network for several minutes.

1. Open your web browser and enter the TCP/IP address of the machine that you wish to restore or clone the settings to. Press **Enter**.
2. Click the **Properties** tab.
3. Click the **Xerox Standard Accounting** folder in the directory tree.
4. Select **Cloning**.
5. In the Install Clone File portion of the displayed dialog, click **Browse**.
6. Locate the .dlm clone file.
7. Click **Install**.
8. If prompted, enter the current administrator User name and password. The default is 11111 and x-admin.

Note: The machine will be unavailable over the network for several minutes. Once rebooted a Settings List should automatically print, if enabled. If the Settings List does not automatically print, manually print the list by referring to the instructions in the Settings List topic in the Network Connectivity section of this guide. Looking at the Settings List, verify that some or all of your settings have been cloned to the new machine. Also, note that it may be necessary for you to use your web browser to view the Xerox Standard Accounting set up of Users and Groups on the new machine.

Audit Log

Overview

With TCP/IP and HTTP-based processes running on the device, exposure to access attacks, eavesdropping, file tampering, service disruption, and identity (password) theft is significantly increased.

The Audit Log, regularly reviewed by the Security Administrator, often with the aid of third party analyzing tools, helps to assess attempted security breaches, identify actual breaches, and prevent future breaches.

The Audit Log is enabled or disabled from the **Audit Log** hot link on the **Support tab** of Internet Services, accessed from a networked workstation running a web browser. To enable Internet Services, if necessary, refer to the **Enable Internet Services** topic in the **Network Connectivity** section of this guide.

Access to logged data is also accomplished from the **Audit Log** hot link on the **Support** tab of Internet Services, but additionally requires the enabling of SSL/TLS encryption. To enable this encryption, refer to the **Security – SSL/TLS Encryption** topic in the **Options** section of this guide.

Events tracked in the Audit Log, include: Starting and Stopping of the device, Login/Logout events, Changes to system settings, and job completions.

Accessing the Audit Log feature

The Audit Log feature is accessed through Internet Services as follows:

1. On a networked workstation, open your Web browser and enter the TCP/IP address of the machine in the Address or Location field. Press **Enter**.
2. Click the **Support** tab.
3. Click the **Audit Log** hot link.
4. Supply the Administrator **User Name** and **Password** (defaults of 11111 and x-admin), when prompted.
5. Select the On-Line Help for additional help, as required.

Annotation (Bates Stamping)

Overview

Adding notes to scanned and copied pages (annotation) is primarily a user-controlled feature. An Annotation button is accessed by pressing the Copy button on the device's Main (All Services) screen, then by pressing the Output Format tab. Bates Stamping is one of the selections available by pressing the Annotation button.

Bates Stamping is used in the legal profession to sequentially number or date/time-mark documents as they are scanned and copied by the system. A number of parameters are available for selection, as specified below.

*Note: Other forms of annotation are available, with default parameters set by the System Administrator using the same button-pressing sequence stated in this section under **Configuring a precise bates stamp location**. For these other forms of annotation, note that you will need to press the Annotation - Create Stamps button on the Copy Mode Settings screen to create individual stamp text.*

Configuring Bates Stamp Settings

1. Insert a document in the device's document handler.
2. Press **Copy** on the Main (All Services) screen.
3. Press the **Output Format** tab.
4. Press the **Annotation** button.
5. Select **Bates Stamping**.
6. Set Bates Stamping to **On**.
7. Press the **Prefix** text box and use the displayed keyboard to specify the Prefix to use.
8. Press **Save**.
9. Press the **Number of Digits** button to assign the number of digits for printed page numbers. Press **Save** to save setting changes.
10. Press **Print On** to specify the pages on which to print the Bates Stamp. Press **Save** to save changes.
11. Press **Position** to specify the relative position on the page for the printed Bates Stamp. Note that a precise location can be set by the System Administrator as stated in this section. Press **Save** to save changes.
12. Press **Size** to specify the size of type for the Bates Stamp. Press **Save** to save changes.
13. Press **Save** when done, then press **Save** again.
14. Press the **Start** button.

Configuring a precise Bates Stamp location

1. Press the **Log In / Out button** on the Control Panel.
2. Press the "**1**" key on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press **System Settings**.
5. Press **System Settings** again.
6. Press **Copy Mode Settings**.
7. Press **Copy Control**.
8. Press the down arrow to scroll to the Bates Stamping selection lines.
9. Press the applicable Bates Stamp position lines to set the precise location for your Bates stamp, using x and y axes.
10. Press **Change Settings** to change settings.
11. Press **Save** to save your changes.
12. Press **Close** until the System Settings screen is displayed.
13. Press **Exit** on the System Settings screen to return to the Main (All Services) screen.

Internet Services

Enable Internet Services (HTTP)

C3

Internet Services are a series of Web (HTML) Pages located within the Device enabling network communication settings to be conveniently configured from a web browser running on a remotely located workstation.

*Note: If Authentication is enabled, as stated in the **Security – Authentication (by Auditron Administration)** topic in the **Options** section of this guide, you will have to supply the Administrator User Name and Password when first accessing Internet Services, rather than supplying these credentials after configuring individual features with Internet Services.*

To access Internet Services Settings at the Device

1. Press the **Log In / Out button** on the Control Panel.
2. Press the **"1" key** on the numeric keypad five consecutive times. (This is the factory default "password.")
3. Press the rectangular **Confirm button** on the touch screen.
4. Press the **System Settings button** (the right-hand button of the two buttons displayed on the touch screen). Note: If you press the left button by mistake, the Main menu will be displayed and you will have to start over at step one above.
5. Press the **System Settings button**.
6. Press the **Network Settings button**.
7. Press the **Port Settings button** to access the Port Settings menu.
8. When the Port Settings menu displays, press the down arrow key to view additional selections.
9. Press the **Internet Services (HTTP)** selection line.
10. Press the **Change Settings** button in the lower right corner of the Port Settings menu screen.
11. When the Internet Services (HTTP) menu displays, note that you have two settings available for selection. The Port Settings menu selections are **Port Status** and **Internet Services Port Number**. After pressing the selection line, to access available settings press the Change Settings button in the lower right corner of the touch screen.

Internet Services (HTTP) Enablement

1. Press the selection line labeled **Port Status**.
2. Press the **Change Settings** button.
3. On the Port Status screen, note which of the two buttons is highlighted as the current setting for Internet Services Enablement. The available settings are Enabled or Disabled. In order to use Internet Services, this setting **MUST** be enabled.
4. To change settings, press your setting of choice, then press the **Save** button.
5. To exit the screen, without making any changes, click the **Cancel** button.

Internet Services Port Number

1. Press the selection line labeled **Port Number**.
2. Press the **Change Settings** button.
3. On the Port Number screen, use the supplied keypad to enter the appropriate port number (default of 80).
4. To change settings, press the **Save** button.
5. To exit the screen, without making any changes, press the **Cancel** button.

Exiting the Internet Services Selection Menu

To exit the Internet Service Selection Menu, which returns you to the Port Settings menu, press the rectangular **Close** button in the upper right corner of the touch screen.

Exiting the Port Settings Menu and returning to the Device's Main Menu

1. To exit the Port Settings menu, returning to the Device's Main screen, press the rectangular **Close** button in the upper right corner of the Port Settings menu screen.
2. Press the rectangular **Close** button in the upper right corner of the Network Settings screen.
3. Press the rectangular **Close** button in the upper right corner of the System Settings screen.
4. Finally, press the rectangular **Exit** button in the upper right corner of the System Settings screen.

Note: If you changed any settings in the Port Settings menu, the Device will automatically reboot to register and enable your new settings.

Overview

N1.0

Internet Services is the embedded HTTP server application that resides in the Device. Internet Services allows you to access Device configuration and connectivity tools using a web browser.

To access the Device's Internet Services from your workstation, **set your browser so that it will not try to access the Device through a proxy server.**

With your Internet Browser program running on your workstation, enter the Device's **IP Address** (as seen on the Settings List) into the Address or Location field of the browser. Press the **Enter** key on your keyboard.

Internet Services contains the following main menu tabs:

- **Status:** Allows you to review the status of the Device's Trays and Consumables.
- **Jobs:** Allows you to view the current job queue, as well as a history of processed jobs.
- **Print / Scan:** Includes the **Job Submission** and **Job Templates** hot links. **Job Submission** allows you to send print-ready jobs to the Device. Note: The print-ready jobs must be in a file format that the Device recognizes (PostScript files with a .ps file extension, for example). **Job Templates** enables the creation and editing of Job Templates, used to direct scanned jobs to Network Servers. It is also the gateway for the set up of template pool servers and file repositories.
- **Properties:** Allows you to configure the Device for job processing, options support, and network communications.
- **Support:** Provides Support, Error History, System Administrator Settings, Pool Server Settings, and Web Service (if available) hot links. The **Support** hot link allows you to enter System Administrator and Xerox Support information into a dialog. The **Error History** hot link displays the list of machine errors and the times and dates they occurred. The **System Administrator Settings** hot link lets you remotely change the System Administrator User Name and Password. The **Pool Server Settings** hot link appears to be a duplicate of controls provided by selecting Job Templates, then clicking the Display Job Template Screen button on the Print / Scan tab. Use these duplicate settings only with the assistance of the On-Line help. The **Web Service** (if available) offers a remote version of the same service described in the **Web Service** topic of the **Options** section of this guide.

Status Tab

N1.01

The **Status** tab allows you to retrieve the status of the Device's Trays and Consumables.

Click either the **Paper Tray** or **Components** hot links to view the status of the desired item.

Click the **General** hot link for a general description of the machine currently being communicated with.

Click the **Refresh** button at any time to refresh the status screens.

Note that this Tab also contains a handy **Reboot Machine button**, enabling remote rebooting of the Device, when needed.

Jobs Tab

N1.1

Clicking the **Jobs** tab allows you to view the current job queue, as well as a history of processed jobs.

Click on the **Active Jobs** hot link to view the current job queue.

If you click on the folder labeled **Job History List** you will see the Job History hot link which, when clicked, displays a list of jobs that have been processed from the dates indicated on the screen. The list includes jobs that have been printed, copied, and scanned.

Print / Scan Tab

The **Print / Scan** tab includes the **Job Submission** and **Job Templates** hot links.

Job Submission allows you to send print-ready jobs to the Device. Note: The print-ready jobs must be in a file format that the Device recognizes (PostScript files with a **.ps** file extension, for example). Use the **Browse...** button to locate your print-ready job. Click **Start** when you are ready to submit your job.

Job Templates enables the creation and editing of Job Templates, used to direct scanned jobs to Network Servers. It is also the gateway for the set up of template pool servers and file repositories.

For complete instructions on how to create scanning templates, how to configure a scan filing repository, or how to set up a remote template repository, refer to **Network Scanning (using templates)** in the **Options** section of this guide.

Properties Tab

N1.3

The **Properties** tab allows you to configure the Device's numerous job processing and network communications settings, as well as to download scanned jobs from the Device to your desktop.

The **Directory Tree** on the left side of the screen consists of a number of individual **hot links**, mixed in with several **file folders** of nested hot links.

Descriptions of the individual hot links in the Directory Tree

The **Description** hot link displays basic Device identification information.

The **Configuration** hot link provides coverage of such subjects as Memory allocation; available Page Description Languages and their version numbers; Firmware (Software) versions for the Controller and Device components; Hard Disk partition information; and Hardware information (indicating the availability of the Ethernet Port and Hard Disk, for example).

The **Billing Counters** hot link displays a tally of the total number of pages, images, or jobs processed by the device.

The **Paper Tray Attributes** hot link provides a display of the available Trays (including bypass), their media settings, and tray selection order. To have the Device register changes made to any settings, click the rectangular Apply button.

The **Paper Settings** hot link displays Paper Settings, which can be manipulated and set for installed trays, per the Device's User Guide. To have the Device register changes made to any settings, click the rectangular Apply button.

The **Power Saver Settings** hot link displays the settings for low power mode and sleep mode. Low Power Mode is selectable from 1 to 240 minutes. Sleep Mode is selectable from 1 to 240 minutes. To have the Device register changes made to any settings, click the rectangular Apply button.

The **Address Book** hot link enables you to import an address book in Comma Separated Value (CSV) format. This address book can be used by such system options as E-mail, Fax, and iFAX. Click the **Browse...** button to locate your CSV formatted file, then click **Import Now**.

The **Mailbox** hot link provides Mailbox information that is directly related to Scanning to the Device's Hard Drive. The screen displays Box Number (1 - 200), Password, List Order (selectable between Descending and Ascending) and offers a selection of retrieval method by pages. By entering in a box number and password, and clicking the **Document List** button, a list of all the scanned jobs, contained in the Mailbox, is shown.

Note: Mailboxes and Passwords are assigned individually at the Device's User Interface (Control Panel) ONLY. Fax jobs will also be displayed if the Device has been equipped with the optional fax module. For complete information on the set up and use of mailboxes, including downloading scanned jobs to your desktop, refer to Scanning to the Device's Hard Drive in the Options section of this guide.

The **Job Flow Sheets** hot link allows you to register and configure settings in the job flow sheets stored on the machine's hard drive. Job Flow Sheets can be linked to individual mailboxes, providing automatic or manual redirection of files received in the mailbox. For complete information on Job Flow Sheets, refer to **Setup and Use of Job Flow Sheets with Mailboxes** in the **Options** section of this guide.

Auditron Administration defines the method to use to secure machine services with User Authentication. For complete information, refer to **Security – Authentication (by Auditron Administration)** in the **Options** section of this guide.

User Details Setup – Allows you to configure the characteristics of the login prompt for User Authentication.

The **Internet Services settings** hot link displays such Internet Services settings as the Auto Refresh Interval in seconds, and the Display Language (if available). To have the Device register changes made to any settings, click the rectangular Apply button.

The **Port Status** hot link displays a table with check boxes to enable or disable specific ports. Note that if any selections, such as Port 9100 for example, are unavailable for setting using the Device's Control Panel, they can be set here. To have the Device register changes made to any settings on this Table, click the rectangular **Apply** button, then click the **Reboot Machine** button (always available on the Status Tab) to remotely reboot the Device.

Note: It is possible to have additional hot links displayed in this beginning hot links list in the Properties Tab directory. For example, if "Mail Notice" is selected in the Port Status table (through the Port Status hot link), and the Device is restarted, a hot link will be displayed in the list for configuring individual notification that the Device has just printed incoming e-mail. Note that the ability to print incoming e-mail is set from the E-mail hot link in the Protocol Settings file folder of the directory tree.

The **Memory Settings** hot link enables you to view or change the amount of memory allocated on the hard drive for spooling incoming jobs into buffers (dedicated to specific ports or protocols). To have the Device register changes made to any settings, click the rectangular Apply button.

Note: When making setting changes you may be prompted for the Administrator password.

Descriptions of the File Folders in the Directory Tree

1. The **PKI Settings** folder is used to set up SSL/TLS Encryption with Digital Signatures (also known as Certificates). Click on **SSL/TLS Settings**, then on the **Generate Self-Signed Certificate** button, to place at least one Certificate on the machine. A Certificate Management hot link will then be displayed under the PKI folder. This new link is used to manage all digital certificates, of various types, stored on the machine. A **PDF Security Settings** hot link displays the dialog to determine whether or not to add a digital signature to PDF files. For complete details on the use of PKI (Public Key Infrastructure) Settings to set up encryption, refer to **Security – SSL/TLS Encryption** in the **Options** section of this guide.
2. The **Remote Authentication Server / Directory Services** folder is meant to support machine authentication administered by a remote server. This type of authentication is first set up by selecting **Auditron Administration** in the list of Directory Tree hot links, then selecting Remote Access from the **Auditron Mode** drop-down list. Machine connection to the remote authentication server is then set up using the hot links displayed under the Remote Authentication Server / Directory Services folder. For complete details on the set up and use of authentication, including Remote Authentication, refer to **Security – Authentication** in the **Options** section of this guide.
3. The file folder, labeled **Port Settings**, contains Ethernet, Parallel Port (if available), and USB (if available) hot links. Note that the Parallel Port and USB hot links need an optional kit installed before they can be displayed.

Click on the **Ethernet** hot link to view or change **Ethernet** (speed) **Settings** from a drop-down selection list. Selections include: Auto (auto sensing), 10 Base-T (Half Duplex), 10 Base-T (Full Duplex), 100 Base-TX (Half Duplex), and 100 Base-TX (Full Duplex). The MAC Address of the machine is also displayed, but not editable. To have the Device register changes made to any settings, click the rectangular Apply button.

Click on the **Parallel** hot link to view or change the enablement settings for **Bi-Directional Communications** (a check box) and **Auto Eject Time** (Parallel Port Timeout), with a range of 5 to 1275 seconds. To have the Device register changes made to any settings, click the rectangular Apply button.

Click on the **USB** hot link to view or change the **Auto Eject Time**, which is the length of time the Controller will wait for an end of job command before processing the job. Refer to the On-Line Help for assistance in configuring the Adobe Communication Protocol (if available).

4. The file folder, labeled **Protocol Settings**, contains a list of hot links for viewing or modifying the communications protocols used by the Device. Specifically notice the hot links for E-mail, SMTP, and POP3, which can be used instead of the settings at the machine's User Interface, to configure E-mail scanning with the machine. For complete information on required E-mail settings, refer to the **Scan to E-mail** topic in the **Options** section of this guide. To have the Device register changes made to any settings, click the rectangular Apply button.
5. The file folder, labeled **Emulation Settings**, contains a hot link labeled **Print Mode**, and several Page Description Language links.

Click on the **Print Mode** hot link to set the Page Description Language emulation used by the Printer's Input Ports displayed on the screen. Depending upon the Ports enabled at the Device, the list of Ports will include: Parallel, AppleTalk (with PostScript), SMB, NetWare, LPD, IPP and Port 9100. Typical Page Description selections for each Port include: Auto (auto select), PostScript, HP-GL/2, PCL, and TIFF/JPEG. To have the Device register changes made to any settings, click the rectangular Apply button.

Click on a Page Description Language hot link and the **Edit** button (when available) to access the Printer's default preferences for processing that Page Description Language. To have the Device register changes made to any settings, click the rectangular Apply button.

Support Tab

N1.5

The **Support** tab provides Support, Error History, System Administrator Settings, Pool Server Settings, Web Service (if available), and Audit Log hot links. The **Support** hot link allows you to enter System Administrator and Xerox Support information into a dialog. The **Error History** hot link displays the list of machine errors and the times and dates they occurred. The **System Administrator Settings** hot link lets you remotely change the System Administrator User Name and Password. The **Pool Server Settings** hot link appears to be a duplicate of controls provided by selecting Job Templates, then clicking the Display Job Template Screen button on the Print / Scan tab. Use these duplicate settings only with the assistance of the On-Line help. The **Web Service** (if available) offers a remote version of the same service described in the **Web Service** topic of the **Options** section of this guide. For details on the **Audit Log** function, see the **Audit Log** topic in the Options section of this guide.

Additional Details of some Properties Tab features

Setting TIFF (and other PDL) Processing Properties N3.2

To set the Printer's default TIFF / JPEG, PostScript, PCL, or HP-GL/2 processing properties, perform the following steps:

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the folder in the directory tree labeled **Emulation Settings**.
4. Click on the **TIFF / JPEG**, or **PostScript**, or **PCL**, or **HP-GL/2** hot link to access the Device's list of default settings for processing the selected Page Description Language.
5. Select a Printer number and click the **Edit** button (when available) to access a list of numerous processing settings.
6. Click the rectangular **Apply** button to have the device register changes made to any settings. To return settings to their previous values, without making changes, click the **Undo** button.

Setting PDL Emulations

N3.3

To set the PDL (Page Description Language) Emulations, used by the Device's Input Ports, perform the following steps:

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the folder in the directory tree labeled **Emulation Settings**.
4. Click on the **Print Mode** hot link to access a list of the Device's Input Ports, displaying the Page Description Language emulations they are currently using.
5. Depending upon the Ports enabled at the Device, the list of displayed Ports includes: Parallel, AppleTalk (with PostScript), SMB, NetWare, LPD, IPP and Port 9100. Typical Page Description selections for each Port include: Auto (auto select), PostScript, HP-GL/2, PCL and TIFF.
6. Make your required setting changes, and click the rectangular **Apply** button to have the device register the changes. To return settings to their previous values, without making changes, click the **Undo** button.

Set the Ethernet Speed

N5.0

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the folder in the directory tree labeled **Port Settings**.
4. Click the **Ethernet** hot link.
5. Select your network speed from the drop-down list.
6. Click the **Apply** button to accept the changes, or the **Undo** button to return the settings to their previous values.

Note: Changes to settings are not applied until you restart the Device. A Reboot Machine button is available on the Status Tab of Internet Services.

Configure NetWare Settings

N5.2

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **NetWare** in the directory tree. **Note:** If NetWare is not displayed, click on Port Status to see if the NetWare Port is checked (enabled).
5. The available selections include:
 - A Host Name (Print Server) Text box. Use this name to create the Print Server (in Bindery) and Print Server object (in NDS).
 - An Active Mode selection box for Directory (NDS) or Bindery.
 - A (Primary) File Server Name entry box (Bindery).
 - A Polling Interval entry box for Queue Polling Interval (1 - 1000 seconds).
 - A Number of Searches entry box for SAP frequency (1 - 100 seconds, with the ability to set to zero, which is off).
 - Two Password text boxes for logging into the NetWare Server.
 - A TBCP Filter checkbox (displayed when PostScript is enabled).
 - Under the NDS Subject Label there is a text box for Tree, followed by one for Context.
 - A Frame Selection box, with a default of Auto (auto sensing). Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk).
 - A display of the Device's Network (MAC) address.
 - A Service Location Protocol (SLP) Active Search Enablement box. For use with NetWare 5 and newer versions, this protocol helps to reduce service advertising network traffic.

6. Either accept the default Host (Print Server) Name or type in a new name that matches the name used on the Server.
7. Select the type of NetWare network (Mode) that applies to your situation.
8. If setting up this printer in a Bindery environment, provide the name of the Primary Server.
9. Enter in a polling rate for **Polling Interval** (Queue Polling Interval).
10. Enter in a SAP (service advertising protocol) frequency, or set **Number of Searches** (SAP frequency) to zero (off).
11. Type a **Password** for the Device to log into the NetWare Server, and type it a second time for confirmation.
12. For NetWare NDS (NetWare Directory Services), type a directory tree name and context (typeful name in the NDS environment). Note: Since there is no Browse function, you **MUST** manually enter in this information. For example: O=xerox.OU=engineering.
13. For Frame Selection, if in doubt, leave the setting at its Auto (auto sensing) default value.
14. Click the **Apply** button, then click the **Reboot** button to reboot the Device and apply setting changes.
Note: A **Reboot Machine** button is always available on the **Status Tab** of Internet Services.

Configure TCP/IP Settings

N5.3

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **TCP/IP** in the directory tree.
5. Review the available selections as displayed on your screen and explained in the **TCP/IP Configuration Selection List**, below.
6. Accept the default Host Name, or type in your own unique Host Name for this Device.
7. Select the desired method for obtaining an IP Address.
8. If **Manual** is selected, type in the addresses that apply for **IP Address**, **Subnet Mask**, and **Gateway**.

Note: If DHCP or BOOTP addressing method is selected, you cannot manually change the IP Address, Subnet Mask, or Gateway. Select Manual if you wish to manually enter in these addresses.

Caution: Changing the IP address for the Device will affect NetBIOS/IP, LPR/LPD, FTP, SNMP, and Port 9100 printing. It will also interrupt the ability to communicate with the device using the Internet Services (series of web pages on the Device). When you change the Device's IP Address, make sure to print out a Settings List (as stated in this guide) so that you have a record of the TCP/IP addresses for use with workstations that need to communicate with the Device using TCP/IP.

DHCP TIP: When using DHCP, set a reasonably long Lease Time for the IP Address so that the Device can be restarted, when taken out of service for maintenance, without being assigned a new IP Address.

9. Determine the method to use to supply the DNS Server IP Addresses (to resolve Host Names with IP Addresses).
10. Determine whether or not Dynamic DNS should be enabled.
11. Determine the method to use to supply the WINS Server IP Address (to resolve Host Names with IP Addresses exclusively in an NT environment).
12. Determine whether or not IP Filter should be enabled (to restrict access to the Device). For more information see Restricting Device Access in this guide.
13. When finished modifying settings, click the **Apply** button. To exit the settings screen without making changes, click the **Undo** button.

Note: Changes to TCP/IP settings will not be applied until you restart the Device. A remote Reboot Machine button is available on the Status Tab of Internet Services.

TCP/IP Configuration Selection List

As displayed on your screen, the following selections are available for TCP/IP Configuration.

Under the TCP/IP Subject Label

Host Name. The default entry assures a name that is unique to this device on the network.

Get IP Address. Use this drop-down menu to select the method to use to assign IP Addresses. Select Manual, DHCP, RARP, BOOTP, or DHCP/Autonet.

IP Address entry box. To be filled in manually when Manual addressing is selected.

Subnet Mask entry box. To be filled in manually when Manual addressing is selected.

Gateway entry box. To be filled in manually when Manual addressing is selected.

Under the DNS Subject Label

Get DNS Server Address check box. If enabled with a check mark, the Device will contact the DHCP Server for the IP Addresses of up to three DNS Servers. If unchecked, this information must be entered manually.

Three DNS Address boxes are supplied for the manual entry of DNS Server addresses.

DNS Domain Name. A text entry box is supplied for the entry of a DNS Domain Name.

Generate Domain Search List Automatically. A check box is provided for enabling automatic Domain searches.

Domain Names 1,2,3. Three text boxes are provided for the entry of Domains to search (for example, Xerox.com).

Connection Timeout. An entry box is provided for entering a Timeout for searches of Domains.

Dynamic DNS Update Box. If your DNS Server does not support dynamic IP address updates there is no need to enable this checkbox.

Under the WINS Server Subject Label

Get WINS Server Address check box. If enabled with a check mark, the Device will contact the DHCP Server for the IP Addresses of the Primary and Secondary WINS (Windows Internet Naming Service) Servers.

WINS Primary/Secondary Server IP Address Lines. Two IP Address lines, with entry boxes, are provided for manual entry of the WINS Primary and Secondary Server Addresses (when DHCP is not selected).

Under the IP Address List Subject Label

IP Filter Enablement Check box. If enabled with a check mark, access to the Device's services will be restricted to the list of IP Addresses and Subnet Masks specified by clicking the available Edit button. If disabled (unchecked), host access to the Device is universal (unrestricted).

Edit button. When this button is clicked, a list of ten lines of IP Address and Subnet Mask entry boxes is displayed. Sometimes referred to as a "restriction list," this list is used to supply the IP Addresses and Subnet Masks of up to ten hosts (individual workstations) that are authorized to access the Device's services. All other hosts, not specified in this list, will be prevented from accessing the Device's services.

Configure LPD

N5.6

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **LPD** in the directory tree.
5. The available selections include:
 - Port Number, with a default value of 515. As this is the port for the TCP Spooler assigned by the IANA (Internet Assigned Numbers Authority), the default value should not need to be changed.
 - A TBCP Filter checkbox (displayed when PostScript is enabled).
 - Connection Time-Out entry box.
6. Enter a **Time Out** value for jobs being sent to the Device through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
7. Click the **Apply** button to accept the changes, or the **Undo** button to return the settings to their previous values.

Note: Changes to settings are not applied until you restart the Device. A Reboot Machine button is available on the Status Tab of Internet Services.

Configure SNMP N5.4

It is possible to remotely define and modify GET (Read Only), SET (Read/Write), and Trap SNMP (Simple Network Management Protocol) community names for the Device. You can also enter the System Administrator's Name here for packet identification purposes.

SNMP Community Name properties that can be configured

Community Name (Read Only)—This is the password for SNMP GET requests from the SNMP Manager to the Agent in the Device. Applications, such as Xerox Printer Map or CentreWare Conductor, obtaining information from the device by SNMP use this password.

Community Name (Read/Write)—This is the password for SNMP SET requests from the SNMP Manager to the Agent in the Device. Applications, such as Xerox Printer Map or CentreWare Conductor, which set information on the device by SNMP use this password.

Community Name (Trap Notification)—This is the default password for SNMP TRAPS sent from the device to the Manager by SNMP.

Configuring SNMP Community Names with Internet Services

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SNMP** in the directory tree.
5. Enter a name for **Community Name (Read Only)**, also known as GET.
6. Enter a name for **Community Name (Read/Write)**, also known as SET.
7. **Caution:** If you change the GET and/or SET Community Names, you must also change the names in all network applications that are communicating by SNMP with this Device.
8. Enter a name for the default Community Name (Trap Notification).
9. Optionally enter the System Administrator's name for packet identification purposes.
10. Click the **Apply** button to accept the changes, or the **Undo** button to return the settings to their previous values.

Note: Changes to settings will not be applied until you restart the Device. A Reboot Machine button is available on the Status Tab of Internet Services.

Configure SMB

N5.5

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **SMB** in the directory tree.
5. The available selections include:
 - A text box indicating Workgroup name.
 - A text box indicating the (SMB) Host name.
 - An entry box for the maximum number of connections allowed, labeled Maximum Sessions.
 - A TBCP Filter checkbox (displayed when PostScript is enabled).
 - An enabling checkbox for supporting Unicode (supplying the Host name and Workgroup name in Unicode characters during SMB transmission).
 - An enabling checkbox for Auto Master Mode. This enables the machine to become the master browser when no other machine is performing the master browser function for the workgroup.
 - An enabling checkbox for Encrypt Password (during SMB transmission).
6. Accept the default value, or enter a value from 3 to 10, for maximum number of connections allowed in **Maximum Sessions**.
7. Accept the **Workgroup name** shown, or enter in your own workgroup name.
8. Type the **SMB Host Name** or accept the name shown.
9. Check the **Auto Master Mode** box to assure that the machine is always listed in the Workgroup.
10. Check **Password Encryption** to encrypt SMB server passwords, if desired.
11. Click the **Apply** button to apply setting changes, or the **Undo** button to return settings to their previous values.

Note: Setting changes are not applied until you restart the Device. There is a convenient Reboot Machine button on the Status Tab of Internet Services.

Configure IPP

N5.7

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **IPP** in the directory tree.
5. The available selections include:
 - Port Number, with a default value of 631. This is the port number assigned by IANA (Internet Assigned Numbers Authority). It does not need to be changed.
 - Additional Port Number entry box. You can enter port 80 (HTTP) here as a backup port.
 - A TBCP Filter checkbox (displayed when PostScript is enabled).
 - Administrator Mode checkbox. This is disabled by default. Consult the On-Line Help for use of this feature.
 - DNS checkbox.
 - Connection Time-out entry box.
6. Verify that the **DNS** checkbox is checked (enabled) by default. If enabled, the DNS Server will be available to resolve Host Names to IP Addresses, in support of printing with IPP.
7. Enter a **Connection Time Out** value for jobs being sent to the Device through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
8. Click the **Apply** button to accept changes, or the **Undo** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Device. There is a convenient **Reboot Machine** button on the **Status Tab** of Internet Services.

Modify the HTTP (Internet Services) Settings

N5.8

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **HTTP** in the directory tree.
5. The available selections include:
 - Port Number entry box. The default value is Port 80, which is the HTTP Port number assigned by the IANA (Internet Assigned Numbers Authority). This default value should not need to be changed.
 - Maximum Sessions entry box.
 - Connection Time-out entry box.
6. In the **Maximum Sessions Entry Box**, accept the default value, or enter a number for the maximum number of hosts (networked workstations) that can be connected to the Device's HTTP Server (Internet Services web pages) at one time.
7. In the **Connection Time-out** entry box, accept the default value, or enter the number of seconds that a browser connection can remain open without any activity.
8. Click the **Apply** button to apply setting changes, or the **Undo** button to return settings to their previous values.

Note: Setting changes are not applied until you restart the Device. There is a convenient Reboot Machine button on the Status Tab of Internet Services.

Configure Port 9100 (Raw Printing)

N5.9

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **Port 9100** in the directory tree. (1)
5. The available selections include:
 - Port Number, with a default value of 9100. This does not need to be changed.
 - A TBCP Filter checkbox (displayed when PostScript is enabled).
 - Connection Time-Out entry box.
6. Enter a **Time Out** value for jobs being sent to the Device through this Port. This is the length of time that the Controller will wait for an end of job command before printing the current job.
7. Click the **Apply** button to accept changes, or the **Undo** button to return settings to their previous values. Note: Setting changes are not applied until you restart the Device.

(1) Note: If Port 9100 is NOT displayed in the Properties Tab directory tree, click the Port Status hot link in the directory tree. Use your mouse to place a check mark in the checkbox on the Port 9100 line. Click the Apply button, then click the Reboot button (always available on the Status Tab) to remotely reboot the Device.

Restricting Device Access

N.5.8.2

Using Internet Services, access to the Device's Services can be restricted by Host IP Address.

To restrict device access, perform the following steps:

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus symbol (+) to the left of the **Protocol Settings** file folder.
4. Select **TCP/IP** in the directory tree
5. Scroll down the page to reveal the **IP Address List** subject label.
6. Enable (with a check mark) the **IP Filter** check box.
7. Click the available **Edit** button.
8. When the list of ten lines of IP Address and Subnet Mask entry boxes is displayed, supply the IP Addresses and Subnet Masks of up to ten hosts (individual workstations) that are authorized to access the Device's services. **Caution:** All other hosts, not specified in this list, will be prevented from accessing the Device's services.
9. Click the **Apply** button to accept the changes. To exit the settings screen without making changes, click the **Undo** button.

Note: Changes to settings are not applied until you restart the Device. A Reboot Machine button is available on the Status Tab of Internet Services.

Configure EtherTalk (AppleTalk)

N5.10

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **EtherTalk** in the directory tree.

Note: If EtherTalk is NOT displayed in the Properties Tab directory tree, click the Port Status hot link in the directory tree. Use your mouse to place a check mark in the checkbox on the EtherTalk line. Click the Apply button

5. The available selections include:
 - Printer Name.
 - Zone Name.
6. Enter the name that you wish to assign to this Printer. This is the name that will appear in the Chooser.
7. Either accept the default zone of * which lets the closest router assign the Device to a zone, or assign the Device to a zone (with a 32 character naming limit).
8. Click the **Apply** button to accept changes, or the **Undo** button to return settings to their previous values.

Note Changes to settings are not applied until you restart the Device. A Reboot Machine button is available on the Status Tab of Internet Services.

E-mail, SMTP, and POP3 Settings

The hot links for E-mail, SMTP, and POP3 can be used instead of the settings at the machine's User Interface, to configure E-mail scanning with the machine.

For complete information on required E-mail settings, refer to the **Scan to E-mail** topic in the **Options** section of this guide.

To have the Device register changes made to any settings, click the rectangular **Apply** button. You can reboot the device remotely using the **Reboot Machine** button, which is available on the Status Tab of Internet Services.

Bonjour

Bonjour, also known as zero-configuration networking, supports communicating with other devices using 169.254/16 IPv4 addressing, over the same physical or logical link (such as in ad hoc, or isolated (non-DHCP) networks).

When the Bonjour protocol is enabled on ALL communicating devices, and those devices are connected, Host names of the individual devices will be resolved to Ipv4 addressing, without the use of a DNS server, and IP communications can then take place.

To view the Host Name and Printer Name automatically assigned to this machine under Bonjour, do the following:

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press **Enter**.
2. Click the **Properties** tab.
3. Click the plus (+) symbol to the left of the **Protocol Settings** file folder.
4. Select **Bonjour** in the directory tree.

Note: If Bonjour is NOT displayed in the Properties Tab directory tree, click the Port Status hot link in the directory tree. Use your mouse to place a check mark in the checkbox on the Bonjour line. Click the Apply button

5. Make a note of the Host Name and Printer Name for reference in working with other Bonjour (zero-configuration) connected workstations.

Note: You can change these names, however the Host Name must be unique on the network. The automatically generated Host Name should assure its uniqueness. The Host Name has a 32 character limit, while the Printer Name has a 62 character limit. If you change either name, be sure to click Apply. You can reboot the device remotely using the Reboot Machine button, which is available on the Status Tab of Internet Services.

Troubleshooting

General Troubleshooting Procedure

1. Make sure that the machine is switched ON and that the Main screen (typically the All Services screen) is displayed.

Note: The actual screen displayed as the Main screen is selectable. To determine the screen you would like displayed, press the Log In / Out button, enter the Administrator password (default of 11111), press System Settings, press System Settings again. Press Common Settings, press Screen/Button Settings, select Features Screen Default, touch Change Settings, make your selection and touch Save. Touch Close repeatedly, until Exit is displayed in the upper right corner of your screen, then touch Exit.

2. Make sure that the machine is plugged into a live network drop, typically with a Category 5 twisted pair cable attached to the RJ-45 socket at the rear of the Device.

Note: You can often determine if the drop is live by looking at the link and activity (if available) light or lights at the rear of the Device. If these lights are lit and/or blinking, you have a live connection. If you cannot determine if the drop is live, plug the machine into another drop being used by another machine that is fully functioning on the network. You can use a hub to connect both machines to the live network drop so that you do not interrupt the operations of the working machine. If you do not have access to a second working drop, or a hub, connect a laptop to the RJ-45 socket at the rear of the Device using a crossover (NOT a patch) cable.

3. Print a Settings List at the Device using the instructions supplied in the **Settings List** topic in the **Network Connectivity** section of this guide.
4. Referring to the Settings List, determine if the appropriate ports and protocols are enabled for your Network environment.

To support communicating with the Device's Internet Services, a series of internal Web Pages that enable the configuration of operating settings, the TCP/IP protocol stack should be enabled. The Device should also have a valid IP Address, Subnet Mask, and Gateway displayed. If this is not the case, go to the **NOS Selection** section of this guide, locate the **TCP/IP Protocol Configuration** topic, and follow the instructions supplied.

As some Network Environment settings can only be configured through use of Internet Services on the Device, if this tool is shown as "disabled" on the Settings List, follow the instructions in the **Enable Internet Services (HTTP)** topic in this guide.

5. At any networked workstation, or at your laptop connected to the Device with a crossover cable, open your Web browser and enter the TCP/IP address of the Device (as shown on the Settings List) into the Address or Location field. Press Enter. If the HTTP port is enabled at the Device, you should see the Internet Services series of web pages. Note that depending upon Authentication and Encryption settings, you might also see an Administrator Log In prompt, or a Digital Certificate prompt. With the display of these prompts or pages you have proven that the device is communicating with HTTP over the TCP/IP network. A ping command (see TCP/IP Troubleshooting), issued from the workstation's command prompt, can further verify this working connection.
6. To troubleshoot network communication problems interfering with printing or scanning to the machine's hard drive (mailboxes), refer to the specific topic, that applies to your network operating environment, within this Troubleshooting section.
7. To resolve problems with system Options, refer to the **Settings List** to determine if the options are installed, enabled, and properly configured on your machine.

To enable purchased options, refer to the **Enabling Options with Software Keys** topic in the Options section of this guide.

To properly configure enabled options, refer to the applicable topic in the **Options** section of this guide.

TCP/IP Troubleshooting

T1

Use the following check list to troubleshoot your network communication problem.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. Under the **Ethernet Settings** data label on the List, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **TCP/IP** data label, determine the method being used to assign TCP/IP addressing to the Device. Verify that the IP Address, Subnet Mask, and Gateway addresses are correct for your network and have NOT changed from their previous settings. Note: The use of DHCP (the DHCP Server) with a short "lease" time can cause the Device to be assigned a new IP Address when it is powered off for an extended period of time. This will interrupt communications with workstations using the "old" IP address. If you do not want the IP address to be subject to constant changes, either increase the lease time at the DHCP Server, or use the Static IP Addressing method as described in the **TCP/IP Protocol Configuration** procedure in the NOS selection section of this guide.
3. Under the **LPD** data label, if you are communicating with the Device through an LPR port, make sure that LPD is Enabled. If it is NOT, enable it following the instructions supplied in this guide under **TCP/IP LPD Enablement**. Also verify that the displayed port number is "515." If it is NOT, set it to "515" using the instructions supplied in the **Configure LPD** procedure in the Internet Services section of this guide.
4. Under the **Port 9100** data label, to enable the Device to automatically determine the Page Description Language to use in processing jobs sent over the workstation's LPR port, make sure that this Port is enabled. This is the meaning of the word "raw" when used to name the queue during LPR port creation. Follow the instructions supplied in the **Configure Port 9100 (Raw Printing)** procedure in the NOS Selection section of this guide.
5. Under the **CentreWare Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied in the **Network Connectivity** section of this guide.

At the workstation, perform these tasks:

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press ENTER. If the Device's Internet Services (web pages) begin to display on the workstation, you are communicating with the Device. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. Verify that the workstation has been assigned an IP address, subnet mask, and gateway address by running a Command (DOS) prompt, typing **ipconfig/all** (Windows NT/2000/XP) or **wipcfg** (Windows 95/98/Me), and pressing ENTER. If any of the addresses are incorrect or missing, right mouse click on the Network Neighborhood icon (My Network Places in Windows Me and 2000), and make sure that the **TCP/IP protocol** is installed and properly configured for IP addressing. For XP, click Start/My Network Places/right mouse click in the open window/select Properties/right mouse click Local Area Connection/then select Properties.
3. Run a Command (DOS) prompt on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Device's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Device. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.
4. If Web browser and Ping Tests are successful but you are still unable to print to the Device, verify that the driver is using the correct LPR Port to print through. On Windows desktops, select **Start, Settings, Printers** (Start/Printers and Faxes in XP), right click on the Printer's icon, and select **Properties**. Select the Ports Tab (NT4 and 2000) or the Details Tab (95/98/Me) and verify that the LPR Port being printed through matches the IP Address of the Device. If the IP address does NOT match, you are printing to the wrong device on the network. Either select the correct port from the displayed list, or use the **Add Port** button to create a new port with an IP Address matching that of your Device.

Note: When you select a port from the list in Windows NT4, make sure that the checkbox next to the Port name is selected with a check mark.

5. If the correct Port is being used by the driver but you are still unable to print, perform the following procedure. In Windows NT 4, right mouse click on the Network Neighborhood icon and verify that **Microsoft TCP/IP Printing services** are installed in the workstation. In Windows 2000/XP, follow the instructions for TCP/IP Peer to Peer (LPR) Printing, under the Print Drivers Tab of this guide, to verify that **Print Services for Unix** are installed in the workstation. For Windows 95/98/Me, verify that you have properly installed an **LPR Print Utility** (spooler) on the workstation and that it is currently running.
6. Note that access to this Device's Services can be restricted by Host IP addresses. As this feature could cause communications to appear to fail in certain instances, see the **Restricting Device Access** procedure in the Internet Services section of this guide for further details.
7. To assure successful printing, make sure that the Device is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Device's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

NetBEUI Troubleshooting

T2

Use the following checklist to troubleshoot your network communication problem.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. On the Settings List, verify that **SMB** is enabled. If it is NOT enabled you will NOT be able to see the Device in your NetBEUI workgroup when you search for it in Network Neighborhood ("My Network Places" in Windows Me) on your workstation. To enable SMB, follow the instructions supplied in the **Microsoft (NetBEUI)** procedure in the NOS Selection section of this guide.
2. On the Settings List, verify that the default name of the NetBEUI workgroup is **Workgroup** and that the Device has a unique (**SMB Host**) name that is NOT the same as any other device in your workgroup. Note that the SMB Host name will be the name of the Device that you searched for in Network Neighborhood ("My Network Places" in Windows Me) when you installed the print driver on your workstation.
3. If you have to change any names, follow the instructions supplied in the **Configure SMB** procedure in the **Internet Services** section of this guide.

At the workstation, perform these tasks:

1. At the Workstation's Desktop, verify that the NetBEUI protocol is installed. Right mouse click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**. Click the **Configuration Tab (95/98/Me)** or the **Protocols Tab (Windows NT4)** and verify that the NetBEUI protocol is loaded. If it is, click the **Identification Tab (95/98/Me/NT4)** to determine if the name of your workstation's Workgroup is the same as the name of the device's Workgroup. If it is, you can exit the Properties screen. If it is NOT, either type in the Device's factory default name of "Workgroup" here, or use Internet Services to change the Device's workgroup name to match your own. Click **OK**.

Notes:

If the NetBEUI Protocol is not present in the Protocol list, click the Add button, select NetBEUI from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

If you wish to use Internet Services to change the Device's factory default name of "Workgroup," you have to be running the TCP/IP protocol on at least one workstation on your network and have the TCP/IP protocol enabled and a static IP address set at both the workstation and the Device. Verify that Internet Services is enabled at the Device. If it isn't, follow the instructions supplied under the Network Connectivity Tab of this guide to enable it. Change the Device's workgroup name by following the instructions supplied in the Configure SMB procedure in the Internet Services section of this guide.

2. At the Workstation's Desktop, double click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and see if the Printer's (SMB Host) name appears in your Workgroup. If it does NOT, SMB may not be enabled at the Device. Check the Settings List to verify that SMB is enabled. If it is NOT, enable SMB following the instructions supplied in the **Microsoft (NetBEUI)** procedure in the NOS Selection section of this guide.
3. Another reason that the Printer's (SMB Host) name may fail to appear in Network Neighborhood ("My Network Places" in Windows Me) is that the device is directly attached to a workstation that does NOT have **Sharing** enabled. AT THE WORKSTATION SHARING THE DEVICE, right mouse click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and select **Properties**. Click the **Configuration Tab (95/98/Me)** and verify that **File and Printer Sharing services** is installed. In Windows 95/98/Me, click the **File and Print Sharing** button and verify that the checkbox labeled "I want to be able to allow others to print to my printer(s)" is enabled (checked). In Windows 95/98/Me and NT4, from the Printers folder on the desktop, right mouse click on the Printer's icon and select **Properties** (95/98/Me) or **Document Defaults** (NT4). Select the **Sharing** Tab and verify that sharing is enabled for this printer.

4. If the Printer's (SMB Host) name appears twice in Network Neighborhood ("My Network Places" in Windows Me), you need to use Internet Services to change the Printer's (SMB Host) name. To change this name you have to be running the TCP/IP protocol on at least one workstation on your network and have the TCP/IP protocol enabled and a static IP address set at both the workstation and the Device. Verify that **Internet Services** is enabled at the Device. If it isn't, follow the instructions supplied in the **Network Connectivity** section of this guide to enable Internet Services. Change the Printer's (SMB Host) name following the instructions supplied in the **Configure SMB** procedure in the **Internet Services** section of this guide.
5. To assure successful printing, make sure that the Device is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Device's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

NetBIOS over IP Troubleshooting T3

Use the following check list to troubleshoot your network communication problem.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. On the Settings List, verify that **"SMB" is enabled**. If it is NOT enabled, to enable SMB, follow the instructions supplied in the **Microsoft (NetBIOS over IP)** procedure in the NOS Selection section of this guide.
2. On the Settings List, note that the default name of the Device's workgroup is **Workgroup** and that the Device has a unique (**SMB Host**) name. To modify the Device's Workgroup or SMB Host names, if required, use your workstation's Web browser to access the Internet Services (Web Pages) residing in the Device as described in the **Configure SMB** procedure in the Internet Services section of this guide.
3. On the Settings List, under the **TCP/IP** data label, note what method the Device is using to acquire its TCP/IP addresses. If the method shown is **Static**, make sure that the Device has a valid IP address, Subnet Mask, and Gateway address for the network.
4. On the Settings List, verify that **DNS (or WINS, if using only a Windows NT network) is enabled**. The use of Naming Servers is REQUIRED to resolve NetBIOS device names to IP addresses for packet routing over the TCP/IP network. If in doubt as to whether DNS and WINS are enabled, verify the settings following the instructions supplied in the **TCP/IP Dynamic Addressing** procedure in the **NOS Selection** section of this guide. **WARNING:** If the Device is NOT informed of the addresses of the DNS/WINS Servers, you may not be able to see or use the Device's NetBIOS name on the network. Make sure that the Device is informed of the addresses of the DNS/WINS Servers, using the instructions supplied in the **Configure TCP/IP Settings** procedure in the **Internet Services** section of this guide.
5. Under the **Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied in the **Network Connectivity** section of this guide. You **MUST** use this tool at your workstation if you need to change the Device's Workgroup name, the SMB Host Name, the TCP/IP (internet) Host Name, or DNS settings. Note that when using DNS to resolve host names to IP addresses, the NetBIOS name (SMB Host) and the TCP/IP Host Name **MUST** be the same.

At the DNS or WINS Server

Refer to the Server Operating System documentation for the appropriate procedure to use to enable Host name to IP address resolution on the Server. Make sure that the Device's TCP/IP (internet) Host Name and NetBIOS (SMB Host) Name (which should be identical for DNS) is being mapped to an IP Address on the Server. Refer to the Device's Settings List and verify that the Device's TCP/IP Host and NetBIOS (SMB Host) Names continue to match the entries in the Server's database. Also verify that the IP Address shown on the List matches the IP address in the Server's database. If the information is incorrect on the Server, NetBIOS communications from the workstations to the Device WILL be disrupted.

At the NT Server, if being used to Queue Jobs to the Printer

1. Verify that the **TCP/IP** protocol is installed and configured for **DNS** (or WINS) use.
2. Verify that Microsoft TCP/IP Printing Services are installed.
3. From the Printers window on the Server, verify the presence of the Printer's icon (driver).
4. Right mouse click on the Printer's icon and select **Properties**. From the **Ports** Tab, verify the presence of an LPR port with a port name comprised of the Printer's **SMB Host Name** (WINS environment), or **fully qualified domain name** (SMB Host Name.Domain Name, in a DNS environment), or **IP Address** (if static).
5. From the **Sharing** Tab, verify that **Sharing** is enabled for the Printer and that a **Share name** has been assigned.
6. To determine if communications between the Server and the Printer are good, click the **Print Test Page button** on the **General** Tab of the driver.

At the workstation, perform these tasks:

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press ENTER. If the Device's Internet Services (web pages) begin to display on the workstation, you are communicating with the Device. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. On NT4 workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that BOTH Microsoft **TCP/IP Printing Services** and **Workstation** (SMB client) Services are installed.

On Windows 2000 workstations, verify that the **Internet protocol (TCP/IP)** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Also verify that the **Client for Microsoft Networks** is installed. Finally, through Add/Remove Programs and Add/Remove Windows Components, select Other Network File and Print Services, click Details, check the box for **Print Services for Unix**, and click OK and Next.

On 95/98/Me workstations, verify that the **TCP/IP protocol** is installed and that it is configured for **DNS resolution** of the NetBIOS Host Name. Verify that the **Client for Microsoft Networks** is installed and that the workstation has a Computer (NetBIOS) Name and is a member of a Workgroup. From the **Configuration Tab** of Network Neighborhood ("My Network Places" in Me), select the **TCP/IP Protocol**, click **Properties**, select the **NetBIOS Tab** and verify that the checkbox labeled "I want to enable NetBIOS over TCP/IP" is checked.

3. Run a **Command (DOS) prompt** on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Device's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Device (as shown on the Settings List). If you are printing to the printer through an NT Server and know the Server's IP address, you can also ping the Server. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.

Note: To obtain IP address information for your workstation, at the Command Prompt type ipconfig/all (NT4) or winipcfg (95/98/Me) and press Enter.

4. If communicating with the printer in a Peer to Peer environment, at the Workstation's Desktop double click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and see if the Printer's **SMB Host Name** appears in the **Workgroup** indicated on the Settings List. If it does NOT, SMB may not be enabled at the Device, or there is no Master Browser in the Workgroup. Check the Settings List to verify that SMB is enabled and, if necessary, enable Auto Master Mode. To enable SMB, or Auto Master Mode, following the instructions supplied in the **Microsoft (NetBIOS over IP)** procedure in the NOS Selection section of this guide.

5. From your Workstation's Desktop, click **Start/Settings/Printers** (Start/Printers and Faxes in XP), right mouse click on the Printer's icon and select **Properties**. From the **Details** Tab (95/98/Me) or the **Ports** Tab (NT4 and 2000) determine the Port that the driver is using to print through. For peer to peer communications, the port name should match the **SMB Host name** of the Device as shown on the Settings List. If it doesn't you are printing to the wrong port and either need to select the correct port or use the **Add Port** button to create a new port for the driver to print through. Follow the instructions supplied in the **NetBIOS over IP Peer to Peer Printing** procedure in the Print Drivers section of this guide. If the name matches, use the **General** Tab of the driver to print a test page to determine the status of communications between the Workstation and the Device.
6. If communicating with the device in a Client/Server environment, at the Workstation's Desktop double click the **Network Neighborhood** icon ("My Network Places" in Windows Me) and see if the Printer's **Server** is displayed. If you double click on the Server's name, a list of **Shared printers** should be displayed, with the Printer being one of the devices shown. Note that since the Printer is identified as a Share name on the Server, it may NOT have the same name as the SMB Host name on the Settings List. If you do not recognize your Server or Printer's name in the list, perform the following step.
7. From your Workstation's Desktop, click **Start/Settings/Printers** (Start/Printers and Faxes in XP), right mouse click on the Printer's icon and select **Properties**. From the **Details** Tab (95/98/Me) or the **Ports** Tab (NT4 and 2000) determine the Port that the driver is using to print through. For Client/Server communications, the port name should be in the form of a UNC (universal naming convention) such as \\Computer_name\Share_name. If it isn't you are printing to the wrong port and either need to select the correct port or use the **Add Port** button to create a new port for the driver to print through. If the name looks correct, use the **General** Tab of the driver to print a test page to determine the status of communications between the Workstation and the Device.
8. Note that if you have the "UNC" of the Printer, you can enter this into the text box of the **Run** command on your workstation. When you press **Enter**, the workstation will attempt to reconnect to the network Server and Printer Share that was specified by the UNC. Depending upon how the Server was configured you can then either manually or automatically reinstall the driver.
9. To assure successful printing, make sure that the Device is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Device's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

IPP Troubleshooting

T4

Use the following check list to troubleshoot your network communication problem.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. Under the **Ethernet Settings** data label on the List, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **CentreWare Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied in the **Network Connectivity** section of this guide.
3. Under the **TCP/IP** data label, determine the method being used to assign TCP/IP addressing to the Device. Verify that the IP Address, Subnet Mask, and Gateway addresses are correct for your network and have NOT changed from their previous settings. Note: The use of DHCP (the DHCP Server) with a short "lease" time can cause the Device to be assigned a new IP Address when it is powered off for an extended period of time. This will interrupt communications with workstations using the "old" IP address. If you do not want the IP address to be subject to constant changes, either increase the lease time at the DHCP Server, or use the Static IP Addressing method as described in the **TCP/IP Protocol Configuration** procedure in the NOS selection section of this guide.
4. Under the **IPP** data label, verify that the IPP Port is Enabled. If it is NOT, enable the port following the procedure stated in the **IPP Configuration** topic in the NOS Selection section of this guide.
5. Under the **IPP** data label, verify that IPP is using **DNS** to resolve Host Names to IP Addresses in support of IPP printing. If it is NOT, using your workstation's Web browser enter the TCP/IP Address of the Device in the Address or Location field. Press **Enter**. Click the **Properties** tab. Click the plus (+) symbol to the left of the **Protocol Settings** file folder and **select IPP** in the directory tree. Verify that the DNS Enablement Checkbox is checked. If it is NOT checked, check it with your mouse and click **Apply**. Reboot the Device with the **Reboot Machine** button on the Status tab.
6. Under the **IPP** data label, verify that the Port number associated with IPP is **631**. This is the port number assigned to IPP by the Internet Assigned Numbers Authority. If the number is not 631, set it to 631 following the instructions supplied in the **Configure IPP** procedure in the Internet Services section of this guide.

At the Windows 2000 workstation, perform these tasks:

Note: As IPP (the Internet Printing Protocol) is supported by all Windows 2000 workstations, the following procedure is written specifically for Windows 2000. The IPP printing "service" is available for other workstation operating systems through downloads from the Microsoft web site. In general, troubleshooting procedures for other operating systems will be similar to this one.

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press ENTER. If the Device's Internet Services (web pages) begin to display on the workstation, you are communicating with the Device. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. Verify that the Internet protocol (TCP/IP) is installed in the Windows 2000 or XP workstation. On the Windows 2000 Desktop, right click the My Network Places icon and select Properties. Right click on the Local Area Connection icon and select Properties. On the Windows XP desktop, click Start, Control Panel, and double click Network Connections. Right click on the Local Area Connection icon and select Properties. Verify that the Internet Protocol (TCP/IP) has been loaded. If it has, click on (highlight) this item with your mouse and click the Properties button to verify that this workstation is using either a dynamic or static method to obtain a valid TCP/IP address, and that the workstation's host name is being resolved using DNS. If the TCP/IP protocol is not loaded, click the Install... button, then select Protocol as the type of network component that you wish to install. Click the Add... button and select Internet Protocol (TCP/IP). With your Operating System Installer Disk readily available, click the Have Disk... button and follow any remaining instructions. Once the protocol has been installed, you can click on (highlight) the item with your mouse and click the Properties button to verify or set up the method being used for TCP/IP addressing.
3. Run a Command (DOS) prompt on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Device's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Device. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.

4. If Web browser and Ping Tests are successful but you are still unable to print to the Device, verify that the driver is using an IPP Port to print through. From the Windows desktop, select **Start, Settings, Printers** (Start/Printers and Faxes in XP), right click on the Printer's icon, and select **Properties**. Select the Ports Tab and verify that the IPP Port being printed through matches the IP Address, or fully qualified Domain Name, of the Printer. If the IP address (or fully qualified Domain Name) does NOT match, you are printing to the wrong device on the network. Either select the correct port from the displayed list, or use the **Add Port** button to create a new IPP port with an IP Address (or fully qualified Domain Name) matching that of your Device.

Note: A fully qualified Domain Name consists of the Device's internet Host Name, followed by its internet domain name, separated by periods.

5. Note that access to this Device's Services can be restricted by Host IP addresses. As this feature could cause communications to appear to fail in certain instances, see the **Restricting Device Access** procedure under the Internet Services Tab of this guide for further details.
6. To assure successful printing, make sure that the Device is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Device's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, MUST match for successful printing to occur.

NetWare 3.1x Troubleshooting

T5

Use the following check list to troubleshoot your network communication problem.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. Under the **Ethernet Settings** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **CentreWare Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied in the **Network Connectivity** section of this guide.
3. Under the **NetWare** data label, verify that NetWare (and its IPX/SPX protocol) is Enabled. If it is NOT, enable NetWare following the instructions supplied in the **Novell NetWare 3.1x (Bindery) Networks** procedure in the NOS selection section of this guide.
4. Under the NetWare data label, if a **Mode** is shown make sure that it is set to **Bindery**. Set the Mode to Bindery following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
5. Under the **NetWare** data label, verify that you have a **Primary Server** name displayed. If a Primary Server is not shown, you are NOT properly set up for Bindery communications. Provide the Device with the name of the Primary Server following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
6. Under the **NetWare** data label, notice the **Print Server name** that is displayed. This name should be identical to the name of the Print Server used in the Primary Server's LOGIN Configuration File, as well as in the set up of the Print Server, in the Primary Server's PUBLIC directory, using PCONSOLE. Log in passwords may also be set following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.

7. Under the **NetWare** data label, determine if the **IPX Frame Type** is set for **Auto** sensing (the factory default). Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk). If the Frame Type is not set to **Auto** sensing, or to the specific frame type used by the Primary Server, configure the Device with the correct Frame Type following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.

At the Windows workstation, perform these tasks:

1. At your 95/98/Me/NT workstation verify that the correct protocol and service is installed.

At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).

Left mouse click on **Properties**.

Click on the **Protocols Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **IPX/SPX Protocol** has been installed. It should appear in the displayed list.

Note: If the IPX/SPX Protocol has NOT been installed, click the **Add** button, select IPX/SPX Protocol from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

Left mouse click on the **Services Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **Microsoft Client for NetWare** is installed.

Note: If the Microsoft Client for NetWare is NOT installed, click the Add button, select the Microsoft Client Service (or Microsoft Network Service) for NetWare from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the service from the Operating System installer disk for this workstation.

2. At your Windows 2000 or XP workstation, verify that the correct protocol and service is installed.

Verify that the NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol is installed in the workstation. On the Windows 2000 Desktop, use your mouse to right click the My Network Places icon and select Properties. Right click on the Local Area Connection icon and select Properties. On the Windows XP desktop, click Start, Control Panel, and double click Network Connections. Right click on the Local Area Connection icon and select Properties. Verify that the Protocol has been loaded. If the protocol is not loaded, click the Install... button, then select Protocol as the type of network component that you wish to install. Click the Add... button and select NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol. With your Operating System Installer Disk readily available, click the Have Disk... button and follow any remaining instructions.

Verify that the Client Service for NetWare is installed in the workstation. On the Windows 2000 Desktop, right click the My Network Places icon and select Properties. Right click on the Local Area Connection icon and select Properties. On the Windows XP desktop, click Start, Control Panel, and double click Network Connections. Right click on the Local Area Connection icon and select Properties. If the Client Service for NetWare is not loaded, click the Install... button, then select Client as the type of network component that you wish to install. Click the Add... button and select Client Service for NetWare. With your Operating System Installer Disk readily available, click the Have Disk... button and follow any remaining instructions.

3. Verify that the driver is using the correct Network Port to print through. On your Windows desktop, select Start, Settings, Printers (Start/Printers and Faxes on XP), right click on the printer's icon, and select Properties. (Note: If the printer's icon is missing you need to install or reinstall the driver.) Select the Ports Tab (NT4/2000/XP) or the Details Tab (95/98/Me) and verify that the Network Port being printed through includes the name of the **Primary Server** and **Print Queue**. If the Primary Server name does NOT match the name shown on the Device's Settings List, you are printing to the wrong Server on the network. Either select the correct port from the displayed list, or use the **Add Port** button to create a new Network Port. From the General tab of the driver send a test page to the Device to see if you can print.
4. To assure successful printing, make sure that the Device is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Device's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

At the Primary Server, perform these tasks:

1. Check the Printer's Log In Using PCONSOLE

From a workstation with a network connection, log in (with System Administrator Privileges) to the Primary Server.

Note: While the use of PCONSOLE described below does NOT require System Administrator privileges, if you will be making modifications or changing the Printer Configuration file on the Server, you WILL need to be logged in as System Administrator.

Make sure that you have a drive mapped to the SYS volume. This is the volume that contains the LOGIN and PUBLIC directories.

At the command prompt, if not already in the PUBLIC directory, change to the PUBLIC directory by typing `cd public` and press ENTER.

At the PUBLIC prompt, type `pconsole` and press ENTER.

When the PCONSOLE screen displays, observe the information at the top of the screen to verify that you are connected to the correct Primary File Server. If correct, the Server's name will match the Primary Server name shown on the Device's Settings List.

Note: If you are NOT connected to the correct file server you will be checking for the Printer's login in the WRONG place.

Under Available Options, highlight Print Queue Information and press ENTER. The Print Queues will be displayed in a list. Select the name of your printer's Print Queue from the list and press ENTER.

Under Print Queue Information, highlight Currently Attached Servers and press ENTER. If a Print Server is shown, the printer logged into the network properly. If nothing is shown, the printer did NOT log in to the network correctly. Check to see if the Printer logged into another Server, or reboot the Printer to see if it logs into this file server properly.

Press the ESCAPE key as many times as required to back out of displayed menus and screens, until the Exit Pconsole prompt is displayed. Highlight Yes and press ENTER.

2. If the Printer did NOT log in, check to see if it Logged In to another Server

To find out how many File Servers are on the network, at the PUBLIC prompt, type slist and press ENTER.

If you suspect that another File Server contains the Printer Configuration File (with the Print Queue and Print Server names), log in to the server of interest. To log in to one of the displayed servers, type login (the server's name)\(your login name) and press ENTER. Note: add a space between login and the server's name.

Check the Printer's Log In using PCONSOLE, as previously described.

3. Verify the existence of a Login Configuration File for the Printer

On the known Primary File Server, after logging in to the server, make sure that you have a drive mapped to the SYS volume containing the LOGIN and PUBLIC directories.

The printer configuration file is required to be located on the Primary Server, TYPICALLY using the following directory structure: SYS/LOGIN/XEROX. Go to the XEROX directory (by typing cd (directory) ENTER), and verify the existence of the printer configuration file (by typing dir).

If you have a Printer Configuration file for your printer, you should TYPICALLY see a file named x(plus the last 6 digits of the printer's NIC address as shown on the Settings List). If this file is missing, you will have to create it or the printer will NOT be able to communicate over the Novell network. Refer to your Novell documentation for the steps to follow to create this type of file. To edit an existing file, see "Editing the Printer Configuration File" below.

If the Printer Configuration file is present and has the correct name, perform the following step:

4. Check for the Print Server and Print Queue Names

Switch to the PUBLIC directory (if not already there) by typing cd public [ENTER], and type pconsole, and press ENTER.

In PCONSOLE, from the Available Options screen select Print Queue Information.

From the list of displayed Print Queues, look for the queue for your printer and write down its name (RHINO2_Q, for example).

From the Available Options screen select Print Server Information.

From the list of displayed Print Servers, look for the server for your printer and write down its name (RHINO2_PS, for example).

Press the ESCAPE key as many times as required to back out of displayed menus and screens, until the Exit Pconsole prompt is displayed. Highlight Yes and press ENTER.

5. Editing the Printer Configuration File

Note: This procedure REQUIRES System Administrator privileges.

Change directories (cd login, cd xerox) to display the LOGIN\XEROX prompt and TYPICALLY type EDIT x(plus the last 6 digits of the printer's NIC address) and press ENTER.

Your screen should now display a text string SIMILAR to the following:

PQA1_312:FHINO2_Q:RHINO2_PS:Parallel::

The first entry in this file is the Primary Server name (in this case PQA1_312), which, if correct, matches the Primary Server name displayed on the Device's Settings List. The next entry is the Queue Name (FHINO2_Q) WHICH SHOULD MATCH the Queue (RHINO2_Q) that was displayed in PCONSOLE. (This example is showing an INCORRECT entry so you know what to look for.)

The next entry is the Print Server (RHINO2_PS) which should (and in this case does) match the Print Server that was displayed in PCONSOLE.

The last entry :Parallel:: appears in all correct Printer Configuration files. Note the colon before and 2 colons after "Parallel." If this is NOT exactly as shown, your file will need to be recreated.

To correct the incorrectly shown entry for Print Queue, type in RHINO2_Q in place of FHINO2_Q.

From the File menu, select New and press ENTER.

When prompted to save the loaded file, select Yes and press ENTER.

6. Power Cycle (Reboot) the Printer

After making a change in the Printer Configuration file in the Primary Server (that the printer refers to when logging into the network) power cycle the printer (off, then on), to enable the printer to freshly log into the Novell network. WAIT FOR TWO TO THREE MINUTES for the printer to log in.

7. Check to See If the Printer Is Now Logged Into the Network

Using USERLIST - At the PUBLIC prompt (**cd public**), type **userlist** and press ENTER. If the printer logged into the network correctly, its Print Server name (RHINO2_PS, for example) should be displayed in the list along with the time of log in.

Note: As the printer logs into the server as a user, you must NOT exceed your maximum number of Novell user licenses or the printer will fail to log in.

Using PCONSOLE- See the previously described procedure for "Checking the Printer's Log In to the Network Using PCONSOLE."

8. Check to see if a Lack of Novell Licenses is Preventing the Printer from Logging In

Performed by a QUALIFIED NETWORK ADMINISTRATOR at the Server Console, with monitor.nlm running, type version to display the number of user licenses installed. For comparison, from the "Monitor Screen" in the window labeled "Information for Server," the total number of licenses in use is displayed.

9. Suspecting a Problem with the Server

If all of the previous troubleshooting steps have been taken and the printer still fails to log into the network correctly, the problem might be with the Server. In this case, it is recommended that you delete the current Printer Configuration file and all associated Server entries, and set up the Configuration File, and Install a Print Server (create Queue, create print server, define printer), as stated in Novell's documentation.

NetWare 4.x, 5.x (NDS) Troubleshooting

T6

Use the following check list to troubleshoot your network communication problem.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. Under the **Ethernet Settings** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **CentreWare Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied in the **Network Connectivity** section of this guide.
3. Under the **NetWare** data label, verify that NetWare (and its IPX/SPX protocol) is Enabled. If it is NOT, enable NetWare following the instructions supplied in the **Novell NetWare 4.x, 5.x (NDS) Networks** procedure in the NOS selection section of this guide.
4. Under the NetWare data label, if a **Mode** is shown make sure that it is set to **Directory (NDS)**. Set the Mode to Directory (NDS) following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
5. Under the **NetWare** data label, verify that you have **Tree** and **Context** names displayed. If these names are not shown, you are NOT properly set up for NDS communications. Provide the Device with the name of the Directory Tree and Context (typeful name for the Device in the NDS environment) following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.

6. Under the **NetWare** data label, notice the **Print Server name** that is displayed. Use this name to create the Print Server on the NetWare Server. Log in passwords may also be set following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.
7. Under the **NetWare** data label, determine if the **IPX Frame Type** is set for **Auto** sensing (the factory default). Other selections include Ethernet II (used when running TCP/IP on your network), Ethernet 802.3 (used for NetWare versions up to 3.11), Ethernet 802.2 (the default for NetWare 3.12 and later), and Ethernet SNAP (used on networks running TCP/IP and/or AppleTalk). If the Frame Type is not set to **Auto** sensing, or to the specific frame type used by the Primary Server, configure the Device with the correct Frame Type following the instructions supplied in the **Configure NetWare Settings** procedure in the Internet Services section of this guide.

At the Windows workstation, perform these tasks:

1. At your 95/98/Me/NT workstation verify that the correct protocol and service is installed.

At the Desktop, right mouse click the Network Neighborhood icon ("My Network Places" in Windows Me).

Left mouse click on **Properties**.

Click on the **Protocols Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **IPX/SPX Protocol** has been installed. It should appear in the displayed list.

Note: If the IPX/SPX Protocol has NOT been installed, click the **Add** button, select IPX/SPX Protocol from the available list and click OK. If the setup program fails to find the required files, you will have to click Have Disk... to load the protocol from the Operating System installer disk for this workstation.

Left mouse click on the **Services Tab** (in Win. NT) or the **Configuration Tab** (in Win. 95/98/Me) to verify that the **Novell Client for NetWare** (such as IntranetWare Client for Windows NT or Novell Client 32) is loaded. Do NOT use the Microsoft Client for NetWare because it is NOT NDS enabled.

Note: If the Novell Client is not loaded you will need to load the Novell Client Service from the Novell Server Install CD ROM. Get the CD ROM, insert it in your ROM drive, and use Windows Explorer to locate the Read Me file for your NetWare version. Follow the Read Me instructions to install the client. When finished with the install, unless otherwise instructed by the Read Me file, you may still have to click on the Services Tab (NT) or Configuration Tab (95/98/Me), click the Add button, select the Novell client service, and click OK.

2. At your Windows 2000/XP workstation, verify that the correct protocol and service is installed.

Verify that the NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol is installed in the Workstation. On the Windows 2000 Desktop, use your mouse to right click the My Network Places icon and select Properties. Right click on the Local Area Connection icon and select Properties. On the Windows XP desktop, click Start, Control Panel, and double click Network Connections. Right click on the Local Area Connection icon and select Properties. Verify that the Protocol has been loaded. If the protocol is not loaded, click the Install... button, then select Protocol as the type of network component that you wish to install. Click the Add... button and select NW Link/IPX/SPX/NetBIOS Compatible Transport Protocol. With your Operating System Installer Disk readily available, click the Have Disk... button and follow any remaining instructions.

Verify that the Client Service for NetWare is installed in the Workstation. On the Windows 2000 Desktop, right click the My Network Places icon and select Properties. Right click on the Local Area Connection icon and select Properties. On the Windows XP desktop, click Start, Control Panel, and double click Network Connections. Right click on the Local Area Connection icon and select Properties. If the Client Service for NetWare is not loaded, click the Install... button, then select Client as the type of network component that you wish to install. Click the Add... button and select Client Service for NetWare. With your Operating System Installer Disk readily available, click the Have Disk... button and follow any remaining instructions.

3. Verify that the driver is using the correct Network Port to print through. On your Windows desktop, select Start, Settings, Printers, (Start/Printers and Faxes on XP), right click on the printer's icon, and select Properties. (Note: If the printer's icon is missing you need to install or reinstall the driver.) Select the Ports Tab (NT4/2000/XP) or the Details Tab (95/98/Me) and verify that you are printing to the correct NDS Network and Print Queue. If the displayed information is incorrect, you are printing to the wrong device on the network. Either select the correct port from the displayed list, or use the Add Port button to create a new Network Port, selecting the Print Queue from the appropriate NDS network. From the General tab of the driver send a test page to the printer to see if you can print.
4. To assure successful printing, make sure that the Device is configured to support the Page Description Language (PDL) being used by your driver. To check the PDL being used by the driver, print a test job "to file." Open and view the job in a program such as Notepad. The PDL being used by the driver will be displayed in the first few lines of Printer Language. Next, check the Page Description Languages being supported by the Device's ports by following the instructions supplied under the **Setting PDL Emulations** procedure in the Internet Services section of this guide. The PDL being used by the driver, and the PDL supported by the Port you are printing to, **MUST** match for successful printing to occur.

At the Server, perform these tasks:

1. Check the Printer's Log In using PCONSOLE

Log into the Novell Server as System Administrator **using a workstation running Novell Client services** (such as IntranetWare Client for Windows NT or Novell Client 32).

Check the context displayed on screen to make sure that the current context is the same as the context of the file server that was used when setting up the print server and print queue.

Note: If necessary, to change context type `cx` and the correct context name, separated by a space, and press ENTER.

At the drive prompt (if your search path is set for the PUBLIC directory) or by first typing **cd public** [ENTER], type **pconsole** and press ENTER.

From PCONSOLE's **Available Options** window, select **Print Queues** and press ENTER.

In the **Print Queues** window, select the printer's queue and press ENTER.

In the **Print Queue Information** window, scroll down to **Attached Print Servers** and press ENTER.

If the printer logged into the server correctly, the **Print Servers Currently Servicing Print Queues** window should show the name of the Printer's Print Server. If nothing is shown, the printer did NOT log in correctly and, referring to your Novell documentation, you should follow the instructions to set up a Print Server, Print Queue, and Printer using NWADMIN or PCONSOLE. When following these instructions, if you find that the print server name was incorrect, correct it, save the new setup, and power off/power on the printer to log back into the network correctly.

Press your Escape key to exit PCONSOLE.

2. Check the Printer's Log In with NLIST USER

At the PUBLIC prompt (**cd public**), type **nlist user** and press ENTER. If the printer logged into the network correctly, its Print Server name should be displayed in the list along with the time of log in.

WARNING: The NLIST can be misleading if the display is not refreshed frequently, or the printer has been left on for an extended period of time. It can be used as a guide, however, by powering the printer off, then on, to see if the time of login shown in the NLIST updates. If it does, you know that the printer is logging into the network.

3. Check to see if a lack of available Novell Licenses is Preventing the Printer from Logging In

Performed by a QUALIFIED NETWORK ADMINISTRATOR at the Server Console, with **monitor.nlm** running, type **version** to display the number of user licenses installed. For comparison, from the "NetWare 4.x Console Monitor," in the "General Information" window, the total number of licenses in use is displayed.

4. Print a Test File using NPRINT

At the client workstation, with an appropriate print file (mydraw.ps, for example) in the boot drive of the workstation, change to the boot drive (by typing **C:** if necessary), and type the following *TYPICAL nprint* command. If the Server's set up is correct, the file should print.

C:\>NPRINT MYDRAW.PS /Q=8830_Q1 /NOBANNER

Note: 1) mydraw.ps is just a file example. Substitute your own file for this one. 2) Q= your printer queue. 3) Insert a space after nprint and before all forward slash marks (/) of this command.

EtherTalk Troubleshooting

T7

Use the following check list to troubleshoot your network communication problem.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. Under the **Ethernet Settings** data label on the Report, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **CentreWare Internet Services** data label, verify that this feature is Enabled. If it is NOT, enable it following the instructions supplied in the **Network Connectivity** section of this guide.
3. Under the **EtherTalk** data label, verify that the Port is enabled, and that Device has been assigned an EtherTalk (Printer) name and an EtherTalk zone. If one or more of these parameters needs to be configured, follow the instructions supplied in the **EtherTalk (AppleTalk) Configuration** topic of the NOS Selection section of this guide.
4. Under the **EtherTalk** data label and at the bottom of the Settings List, verify that **PostScript** is installed in the Device. If a PostScript license is installed in the Device, the PostScript logo will be clearly displayed at the bottom of the Settings List. NOTE: If a PostScript license is NOT installed in the Device, EtherTalk will NOT be displayed on the Settings List, and will be unavailable for configuration using Internet Services. Consult your Xerox Representative for assistance.

At the Macintosh workstation

Verify that the Printer is visible in the **Chooser**. If it is NOT, install the Driver and PPD file as stated in the **EtherTalk (AppleTalk) Peer to Peer Printing** topic of the Print Drivers section of this guide.

Scanning to Hard Drive Troubleshooting

T8

Use the following check list to troubleshoot your network communication problem.

Before you start

It is assumed that you purchased the Scanning option to enable Scanning to the Hard Drive with your Device. If you did not, contact your Xerox Representative to purchase this option.

Check Physical Media and Network Interface Cards

1. Verify that the Device is powered ON.
2. Verify that the Device and Workstation are using the correct cabling to communicate over the network. Use category 3 UTP patch (NOT crossover) cable for 10 Base T communications, category 5 UTP patch (NOT crossover) cable for 10 Base T / 100 Base TX communications, and Token Ring cabling for Token Ring networks.
3. Verify that the cable at both the Device and Workstation is fully plugged into the Network Interface Card (NIC). Check the link light, which is typically a green LED, to make sure that it is lit. Typically, but not always, a second light on the Network Interface Card will be intermittently flashing, indicating the presence of network traffic. If neither of these lights is lit, there is a problem with the NIC.

Print a Settings List at the Device and perform these tasks:

1. Under the **Ethernet Settings** data label on the List, verify that your communications speed is correctly set for your network and that you have a MAC address listed. The driver for your NIC works at the Media Access Control (MAC) layer of the protocol stack. If no MAC address is shown, you have either a bad NIC or no NIC at all. Replace or install the Network Interface Card.
2. Under the **CentreWare Internet Services** data label, verify that this feature is enabled. If it is NOT, enable it following the instructions supplied in the **Network Connectivity** section of this guide.
3. Under the **TCP/IP** data label, determine the method being used to assign TCP/IP addressing to the Device. Verify that the IP Address, Subnet Mask, and Gateway addresses are correct for your network and have NOT changed from their previous settings. Note: The use of DHCP (the DHCP Server) with a short "lease" time can cause the Device to be assigned a new IP Address when it is powered off for an extended period of time. This will interrupt communications with workstations using the "old" IP address. If you do not want the IP address to be subject to constant changes, either increase the lease time at the DHCP Server, or use the Static IP Addressing method as described in the **TCP/IP Protocol Configuration** procedure in the NOS selection section of this guide.
4. Under the **Salutation** data label, verify that Salutation is enabled. If this protocol is NOT enabled, you will not be able to retrieve your scanned jobs from the Device's Hard Drive. To enable the protocol, follow the instructions supplied in the **Before You Start** section of the **Scanning to the Device's Hard Drive** topic, in the Options section of this guide.

At the Device

1. Verify that you have correctly set up your Mailbox as stated in the **Setting Up Mailboxes** section of the **Scanning to the Device's Hard Drive** topic, in the Options section of this guide.
2. Scan a test document to your Mailbox as stated in the **Scanning to Mailboxes** section of the **Scanning to the Device's Hard Drive** topic, in the Options section of this guide.

At the Workstation

1. Open your Web browser and enter the TCP/IP address of the Device in the Address or Location field. Press ENTER. If the Device's Internet Services (web pages) begin to display on the workstation, you are communicating with the Device. If NOT, make sure that your web browser is not set to use a proxy server and repeat the procedure. If unsuccessful, perform the next step.
2. Verify that the workstation has been assigned an IP address, subnet mask, and gateway address by running a Command (DOS) prompt, typing **ipconfig/all** (Windows NT/2000/XP) or **winipcfg** (Windows 95/98/Me), and pressing ENTER. If any of the addresses are incorrect or missing, right mouse click on the Network Neighborhood icon (My Network Places in Windows Me and 2000) and make sure that the **TCP/IP protocol** is installed and properly configured for IP addressing.
3. Run a Command (DOS) prompt on the workstation and perform **ping** tests to verify successful packet transmission first to the workstation's NIC, then to the Gateway (if being used), then to the Device's NIC. To run Ping Tests, at the Command (DOS) prompt, type: ping xxx.xxx.xxx.xxx and press ENTER. Note that there is a space between the word "ping" and the first xxx. Let xxx.xxx.xxx.xxx first represent the workstation's IP address, then the IP address of the default gateway, and finally the IP address of the Device. If successful, you will receive a reply such as: "Reply from xxx.xxx.xxx.xxx: bytes=32 time<10ms TTL=128." If you receive "Time Out" or "0 bytes received" notifications, the device being pinged is incorrectly configured or malfunctioning.
4. When Internet Services are successfully displayed on your monitor, retrieve your scanned test document as stated in the **Retrieving Images from Mailboxes** section of the **Scanning to the Device's Hard Drive** topic, in the Options section of this guide.

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