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MULTIFUNCTIONAL DIGITAL SYSTEMS

Network Administration Guide for Printing Functions

GA-1191

Preface

Thank you for purchasing the TOSHIBA multifunctional digital system e-STUDIO165/205, e-STUDIO167/207/237 or e-STUDIO182/212/242.
This ***Network Administration Guide for Printing Functions*** is a manual for the e-STUDIO165/205, e-STUDIO167/207/237 or e-STUDIO182/212/242 when the following option is installed.

- Network Printer Kit

This ***Network Administration Guide for Printing Functions*** describes the operation necessary for configuring a network and using the printing functions, such as connecting to a network and setting components.

The following manuals are introduced in this manual as references at the setup:

- **Setup Guide for Printing Functions**
- **Printing Guide**

For general descriptions of your computer, application software and networks, see the manual attached on each product.

Be sure to read this manual before starting the setups. Keep this manual handy and retain it for future reference.

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Before Reading This Manual

Lineup of our manuals

These manuals are provided for the operation of the e-STUDIO165/205, e-STUDIO167/207/237 or e-STUDIO182/212/242. Select and read the manual best suited to your needs. This manual is the ***Network Administration Guide for Printing Functions***.

Basic functions

Operator's Manual for Copying Functions (Booklet)
This manual describes the basic operations, mainly copying functions, of this equipment. It also describes safety precautions to ensure correct and safe use of this equipment. Be sure to read this before you use the equipment.

Facsimile functions

The Fax Kit GD-1221 (optional) is necessary for using the Fax functions.

Operator's Manual for Facsimile Function (Booklet)
This manual describes how to use the Fax functions. Various functions both basic and advanced regarding Fax transmission/reception are available.

Printing functions

The Network Printer Kit GA-1191 (optional) is necessary for using the printing functions.

Quick Start Guide for Printing Functions (Booklet)
This manual gives basic information regarding the printing functions, such as the GA-1191 accessories, necessary environmental conditions and outline of network connections as well as troubleshooting. Be sure to read this before using the printing functions.

Network Administration Guide for Printing Functions (PDF file, This manual)
This manual describes the operation necessary for configuring a network and using the printing functions, such as connecting to a network and setting components.

Setup Guide for Printing Functions (PDF file)
This manual consists of the following two parts.

Control panel:	This part describes how to configure the printer-related settings using the control panel of the equipment.
TopAccess:	This part describes how to use the co-packed utility "TopAccess". The settings and management of the equipment can be done using a Web browser.

Printing Guide (PDF file)
This manual describes the operation necessary for printing data from a computer, such as the installation of the client software and the use of the printer driver.

Network Fax Guide (PDF file)
This manual describes the operation necessary for sending a Fax from a computer via a network, such as the installation of the client software, use of the N/W-Fax driver and the co-packed application software "AddressBook Viewer".

Scanning functions

The Scanner Upgrade Kit GA-1201 (optional) is necessary for using the scanning functions.

Quick Start Guide for Scanning Functions (PDF file)
This manual gives the basic information regarding the scanning functions, such as the GA-1201 accessories, necessary environmental conditions and outline of network connections as well as troubleshooting. Be sure to read this before using the scanning functions.

Network Administration Guide for Scanning Functions (PDF file)
This manual describes the operation necessary for configuring a network and using the scanning functions, such as connecting to a network and setting components.

Setup Guide for Scanning Functions (PDF file)
This manual consists of the following two parts.

Control panel:	This part describes how to configure the scanner-related settings using the control panel of the equipment.
TopAccess:	This part describes how to use the co-packed utility “TopAccess”. The settings and management of the equipment can be done using a Web browser.

Scanning Guide (PDF file)
This manual describes the operation necessary for using the scanning functions, such as the installation and the use of the TWAIN driver.

To read manuals in the PDF file format

The operator's manual in the PDF (Portable Document Format) can be displayed/printed using Adobe Reader or Adobe Acrobat Reader. If neither is installed in your computer, download one of them. This can be done via the website of Adobe Systems Incorporated.

How to read this manual

Symbols in this manual

In this manual, some important items are descried with the symbols shown below. Be sure to read these items before using this equipment.

Note	Indicates information to which you should pay attention when operating the equipment.
Tip	Describes handy information that is useful to know when operating the equipment.
	Pages describing items related to what you are currently doing. See these pages as required.

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- The official name of Windows 2000 is Microsoft Windows 2000 Operating System.
- The official name of Windows XP is Microsoft Windows XP Operating System.
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EASY SETUP FLOW

This section describes the setup flow for enabling the e-STUDIO network features.

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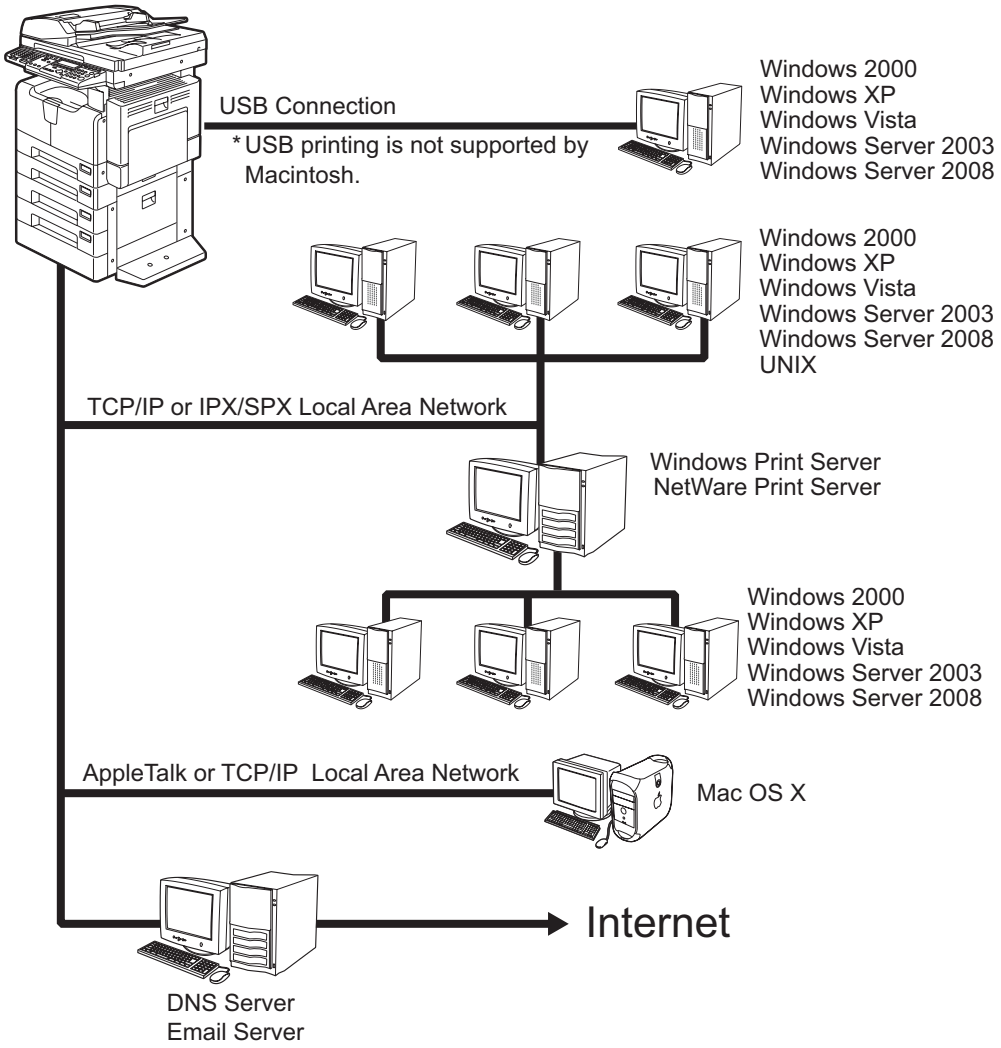
Overview for Network Configuration

This equipment supports network printing. To enable network printing, an administrator has to assign the proper network configuration to client computers, servers, and this equipment.

Tips

- This chapter describes the setup flow for network features.
- For printing using the USB port of this equipment, see the ***Quick Start Guide for Printing Functions***.

Following diagram illustrates the common network configurations for this equipment.



Notes

- When you want to perform printing from Windows 98/Windows Me/Windows NT using e-STUDIO165/205 or e-STUDIO167/207/237, contact your service technician or representative.
- When you want to perform printing from Mac OS 8.6/9.x or Mac OS X 10.1/10.2 Classic Mode using e-STUDIO165/205 or e-STUDIO167/207/237, contact your service technician or representative.

Connecting to the local area network over TCP/IP

When this equipment is connected to the local area network over TCP/IP with Windows computers, UNIX workstations, and NetWare servers, the following features are available:

Printing Features

- Raw TCP or LPR printing in the peer-to-peer connection from Windows computers
  📖 P.14 “Setup flow for Raw TCP or LPR printing (Windows)”
- IPP printing in the peer-to-peer connection from Windows computers
  📖 P.15 “Setup flow for IPP printing (Windows)”
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  📖 P.25 “Setup flow for Bonjour printing (Macintosh)”
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  📖 P.27 “Setup flow for IPP printing (UNIX)”

Connecting to the local area network over IPX/SPX

When this equipment is connected to the local area network over IPX/SPX with Windows computers and NetWare servers, the following features are available:

Printing Features

- Novell Printing through the NetWare Print Server from Windows computers
  📖 P.18 “Setup flow for Novell printing (Windows)”

Connecting to the local area network over AppleTalk network

When this equipment is connected to the local area network over AppleTalk with Macintosh computers, the following features are available:

Printing Features

- AppleTalk Printing in the AppleTalk network from Macintosh computers
  📖 P.21 “Setup flow for AppleTalk printing (Macintosh)”

Connecting to the Internet

When this equipment is connected to the local area network where the Internet access is enabled with DNS server, the following features are available:

Printing Features

- IPP printing in the Internet connection from Windows computers
  📖 P.15 “Setup flow for IPP printing (Windows)”
- IPP printing in the Internet connection from Macintosh computers
  📖 P.23 “Setup flow for IPP printing (Macintosh)”
- IPP printing in the Internet connection from UNIX workstation
  📖 P.27 “Setup flow for IPP printing (UNIX)”

Fax Features

- Sending fax using the Network Fax Driver from Windows computers
  📖 P.29 “Setup flow for network-fax transmission”

Tip

The Network Fax Driver can be operated only when the Fax Kit (optional) and the External Keyboard (optional) are installed in this equipment.

Setup Flow for Printing Features

This section describes the minimum setup flow to configure this equipment for printing.

Setup flow for Windows printing

This equipment supports Raw TCP printing, LPR printing, IPP printing, and Novell printing for Windows computers. The configurations required are different for each printing system.
If you are not sure which printing system you will use, choose the proper printing system according to operating systems of client computers in your network:

- For Windows 2000, Windows XP, Windows Vista, Windows Server 2003, Windows Server 2008 — Raw TCP or LPR Printing

System requirements

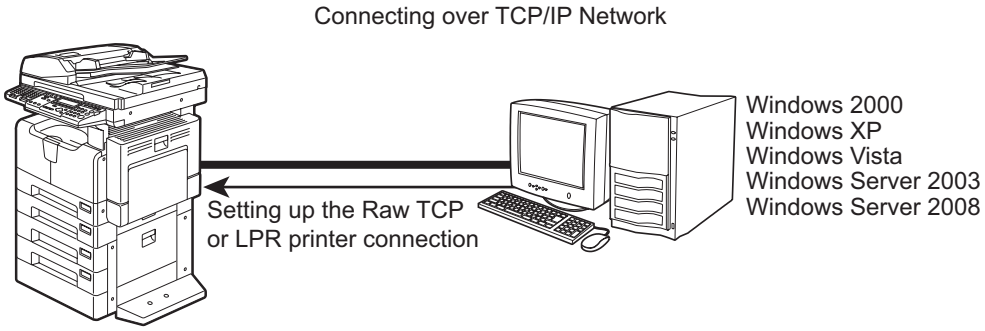
Windows printing applies to the following Windows computers.

- **Display resolution**
  1024 x 768 dots or more
- **Display color**
  High Color (16bit) or higher is recommended
- **CPU**
  Pentium 133 MHz minimum (Pentium 266 MHz or faster recommended)
- **Memory**
  The required memory size for OS.

The applicable computers depend on the printing systems:

- **Raw TCP or LPR printing**
  Windows 2000 Service Pack 4
  Windows XP Service Pack 1 / Service Pack 2/Service Pack 3
  Windows Vista Service Pack 1 / Service Pack 2
  Windows Server 2003 Service Pack 1 or later
  Windows Server 2008 Service Pack 1 or later
- **IPP printing**
  Windows 2000 Service Pack 4
  Windows XP Service Pack 1 / Service Pack 2 / Service Pack 3
  Windows Vista Service Pack 1 / Service Pack 2
  Windows Server 2003 Service Pack 1 or later
  Windows Server 2008 Service Pack 1 or later

Setup flow for Raw TCP or LPR printing (Windows)



This equipment can be used with Raw TCP or LPR printing connection for Windows 2000, Windows XP, Windows Vista, Windows Server 2003 and Windows Server 2008. The Raw TCP printing connection is recommended for Windows 2000, Windows XP, Windows Vista, Windows Server 2003 and Windows Server 2008.

Setup procedure

1 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - 🕮 TCP/IP Configuration
  - 🕮 HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the TCP/IP
  - 🕮 Setting up the HTTP network service

2 Set up the Raw TCP if required.

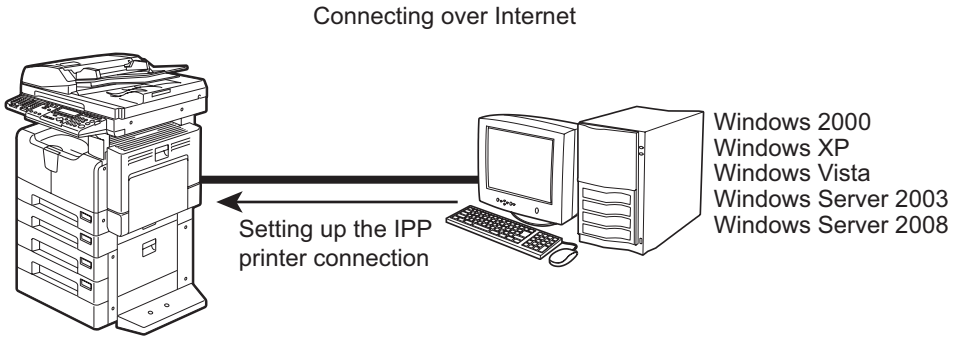
If users use Windows 2000, Windows XP, Windows Vista, Windows Server 2003, or Windows Server 2008 for printing, enable the Raw TCP print service. It is recommended to use Raw TCP printing rather than LPR printing.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Print Service Settings (Printing Function)
  - 🕮 Setting up the Raw TCP print

3 Install the Client Software for Raw TCP or LPR printing.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  Installing Client Software for Windows
  - 🕮 Installing client software for Raw TCP/LPR printing

Setup flow for IPP printing (Windows)



This equipment can be used with the IPP printer connection for Windows 2000, Windows XP, Windows Vista, Windows Server 2003, and Windows Server 2008 in a TCP/IP network. Even though IPP printing can be used in a local area network, this method is commonly used to print over the Internet. If you allow IPP printing through the Internet, you must configure the DNS server to enable users to access this equipment over the Internet using the HTTP protocol. This is useful when users want to print to this equipment from outside the local area network.

Setup procedure

1 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - 🕮 TCP/IP Configuration
  - 🕮 HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the TCP/IP
  - 🕮 Setting up the HTTP network service

2 Set up the DNS Session to be available the services that use the DNS name with a DNS server.

The DNS Session should be configured when this equipment accesses the services, servers, and client computers using the DNS names instead of IP addresses.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the DNS session

3 Set up the DDNS Session if required.

If the DNS server supports the dynamic DNS service, please configure the DDNS Session to enable the dynamic DNS service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  🕮 Setting up the DDNS session

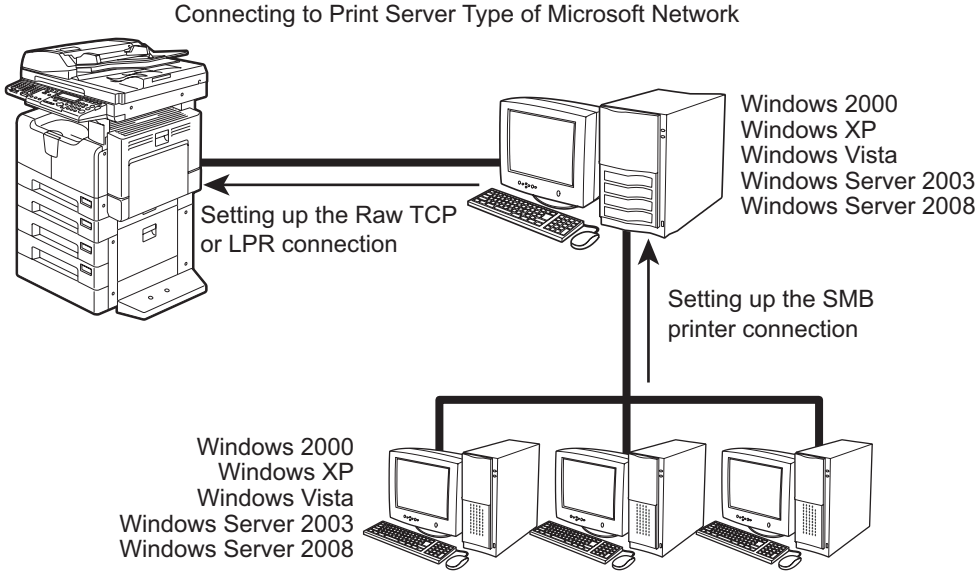
4 Set up the IPP Print Service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Print Service Settings (Printing Function)
  🕮 Setting up the IPP print

5 Install the Client Software for IPP printing.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  Installing Client Software for Windows
  🕮 Installing client software for IPP printing

Setup flow for printing via Windows print server



When you want to print and manage all print jobs via a print server without sending them directly from a client computer to this equipment, set up the Windows print server environment. The administrator sets up a shared printer in a print server by following the setting procedure for Raw TCP printing/LPR printing in Windows 2000, Windows XP, Windows Vista, Windows Server 2003 and Windows Server 2008. This enables users to specify a shared printer set to the print server and perform printing from a client computer.

Setup procedure

1 Set up this equipment for Raw TCP or LPR printing.

Please see the setup flow for Raw TCP or LPR printing.

📖 P.14 “Setup flow for Raw TCP or LPR printing (Windows)”

Note

When installing the printer driver in the server to set up the sharing printer, install the printer driver by the Add Printer Wizard. Do not install the printer driver using the installer.

2 Set up the Windows print server.

📖 P.33 “Setting up Windows Print Server”

3 Install the Client Software for SMB printing via the Windows print server.

Users can install the printer drivers for Windows Print Server network from the queue created in the Windows print server. This installation method is common for Windows print sharing. Please refer to the Windows documentation for information about sharing printers.

Setup flow for Novell printing (Windows)

This equipment supports Novell printing for Windows computers.

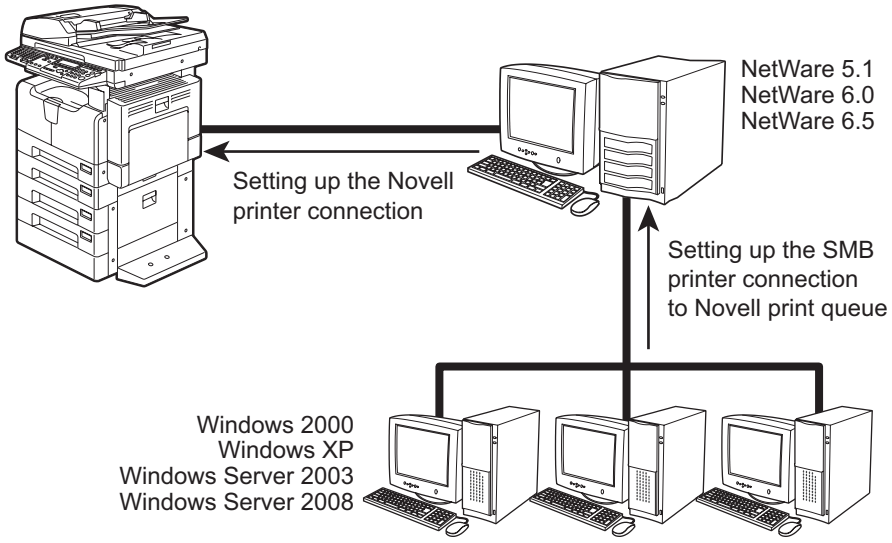
System requirements

Novell printing applies the following NetWare server and client computers:

NetWare: NetWare 5.1/6.0/6.5 NDS mode (over IPX/SPX only)
NetWare 5.1/6.0/6.5 NDPS mode
NetWare 6.0/6.5 iPrint mode

Client OS: Windows 2000 Service Pack 4
Windows XP Service Pack 1 / Service Pack 2 / Service Pack 3
Windows Server 2003 Service Pack 1 or later
Windows Server 2008 Service Pack 1 or later

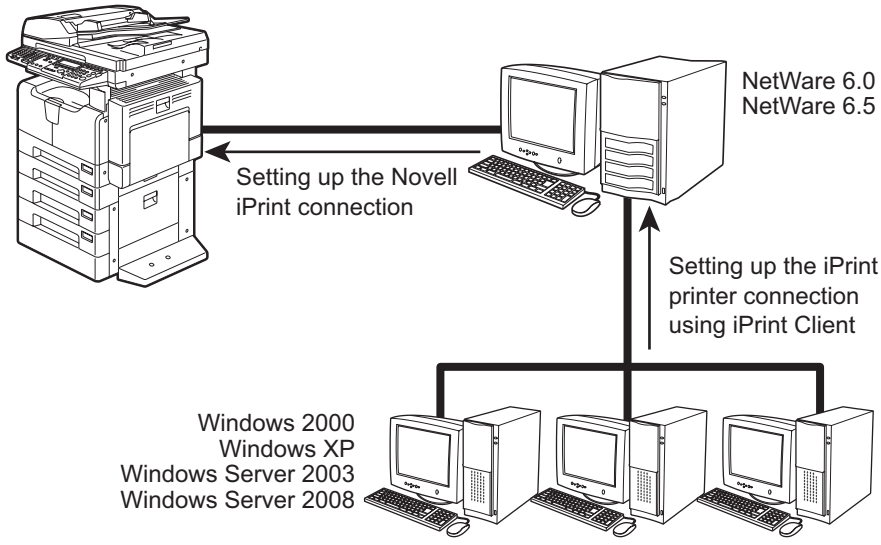
Connecting with a NetWare Environment over TCP/IP or IPX/SPX Network



When you want to manage the print jobs in the NetWare print server instead of directly printing to this equipment, an administrator must configure the NetWare print servers and this equipment.
This equipment supports the PSERVER in the NetWare 5.1/6.0/6.5 NDS/NDPS mode, and NetWare 6.0/6.5 NDS/NDPS mode.

This equipment also supports the Novell iPrint that is available for NetWare 6.0/6.5. Using Novell iPrint, users can download and install the printer driver from the NetWare server using iPrint Client.

Connecting with a Novell iPrint Environment over TCP/IP Network



Setup procedure

1 Set up the NetWare print server.

P.35 “Setting up NetWare Print Server”

2 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - TCP/IP Configuration
  - HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - Setting up the TCP/IP
  - Setting up the HTTP network service

3 Set up the IPX/SPX if this equipment is used in the IPX/SPX network.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - IPX/SPX Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - Setting up the IPX/SPX

4 Set up the NetWare Session.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  📖 Setting up the NetWare session

5 Set up the NetWare Print Service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Print Service Settings (Printing Function)
  📖 Setting up the NetWare print

6 Install the Client Software for Novell printing.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  Installing Client Software for Windows
  📖 Installing client software for Novell printing
  📖 Installing client software for Novell iPrint

Setup flow for Macintosh printing

This equipment supports AppleTalk printing, LPR printing, IPP printing, and Bonjour printing for Macintosh computers. The configurations required are different for each printing system.

System requirements

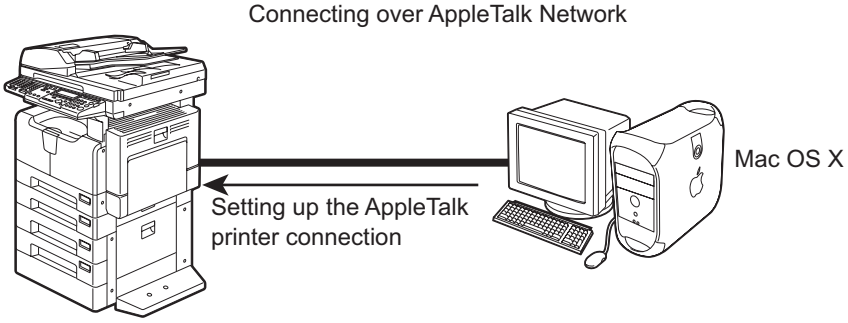
Macintosh printing applies the following Mac OS computers and environments:

Display Resolution:	1024 x 768 dots or more
OS:	Mac OS X 10.2.4 to Mac OS X 10.5.x
Protocol:	TCP/IP, AppleTalk (Ethernet), or Bonjour

Tip

This equipment provides the PPD file for Mac OS X 10.2.4 to Mac OS X 10.5.x.

Setup flow for AppleTalk printing (Macintosh)



This equipment can be used with the AppleTalk printer connection when the Macintosh computers and the equipment are connected over the AppleTalk network.

Setup procedure

1 Set up the AppleTalk.

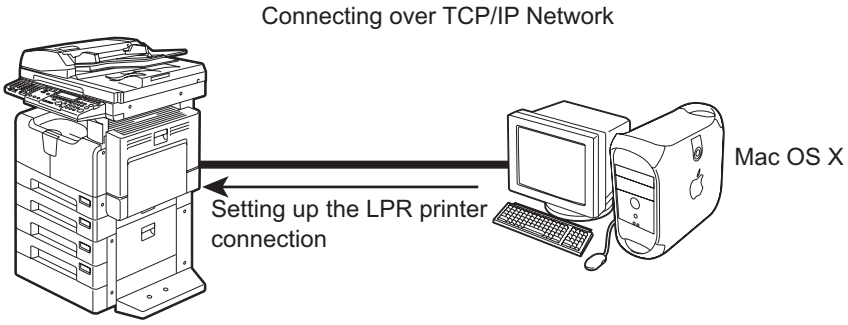
Please see the **Setup Guide for Printing Functions** to configure AppleTalk from the operation panel or TopAccess.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  🕮 AppleTalk Configuration
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  🕮 Setting up the AppleTalk

2 Install the Macintosh PPD file.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  🕮 Installing Client Software for Macintosh

Setup flow for LPR printing (Macintosh)



This equipment can be used with the LPR printer connection when the Macintosh computers and the equipment are connected over the TCP/IP network.

Setup procedure

1 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - 🕮 TCP/IP Configuration
  - 🕮 HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the TCP/IP
  - 🕮 Setting up the HTTP network service

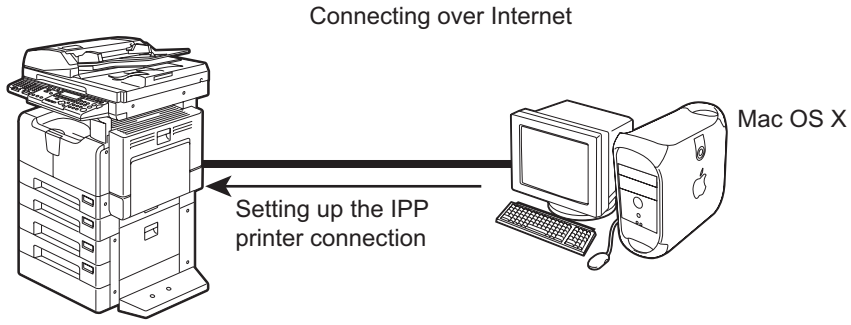
2 Set up the LPD Print Service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Print Service Settings (Printing Function)
  - 🕮 Setting up the LPD print

3 Install the Macintosh PPD file.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  - 🕮 Installing Client Software for Macintosh

Setup flow for IPP printing (Macintosh)



This equipment can be used with the IPP printer connection for Mac OS X in a TCP/IP network. Even though IPP printing can be used in a local area network, this method is commonly used to print over the Internet. If you allow IPP printing through the Internet, you must configure the DNS server to enable users to access this equipment over the Internet using the HTTP protocol. This is useful when users want to print to this equipment from outside the local area network.

Tip

IPP printing for Macintosh is available only for Mac OS X 10.2.4 to 10.5.x.

Setup procedure

1 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - 🕮 TCP/IP Configuration
  - 🕮 HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the TCP/IP
  - 🕮 Setting up the HTTP network service

2 Set up the DNS Session to be available the services that use the DNS name with a DNS server.

The DNS Session should be configured when this equipment accesses the services, servers, and client computers using the DNS names instead of IP addresses.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the DNS session

3 Set up the DDNS Session if required.

If the DNS server supports the dynamic DNS service, please configure the DDNS Session to enable the dynamic DNS service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  🕮 Setting up the DDNS session

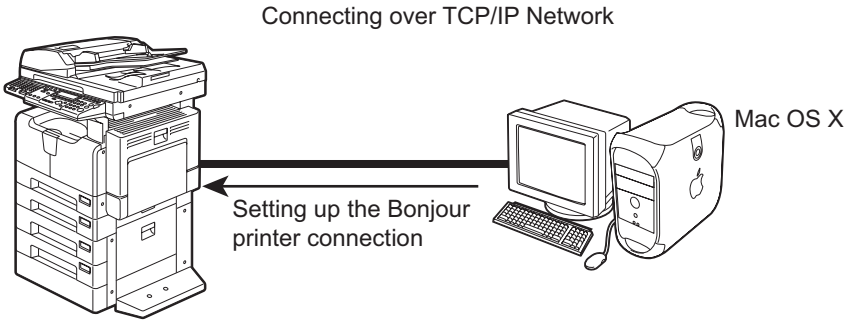
4 Set up the IPP Print Service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Print Service Settings (Printing Function)
  🕮 Setting up the IPP print

5 Install the Macintosh PPD file.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  🕮 Installing Client Software for Macintosh

Setup flow for Bonjour printing (Macintosh)



This equipment can be used with the Bonjour printer connection when the Macintosh computers of OS X and the equipment are connected over a TCP/IP network.

Setup procedure

1 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - 🕮 TCP/IP Configuration
  - 🕮 HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the TCP/IP
  - 🕮 Setting up the HTTP network service

2 Set up the Bonjour.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the Bonjour

3 Install the Macintosh PPD file.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  - 🕮 Installing Client Software for Macintosh

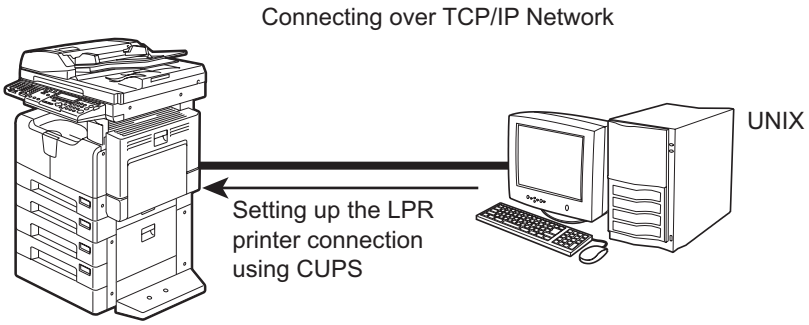
Setup flow for UNIX printing

This equipment supports IPP printing for Linux OS, for example, using the CUPS.

System requirements

Operating systems that support CUPS.

Setup flow for LPR printing (UNIX)



This equipment can be used with the LPR printer connection when the UNIX workstations computers and the equipment are connected over the TCP/IP network.

Setup procedure

1 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - 🕮 TCP/IP Configuration
  - 🕮 HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the TCP/IP
  - 🕮 Setting up the HTTP network service

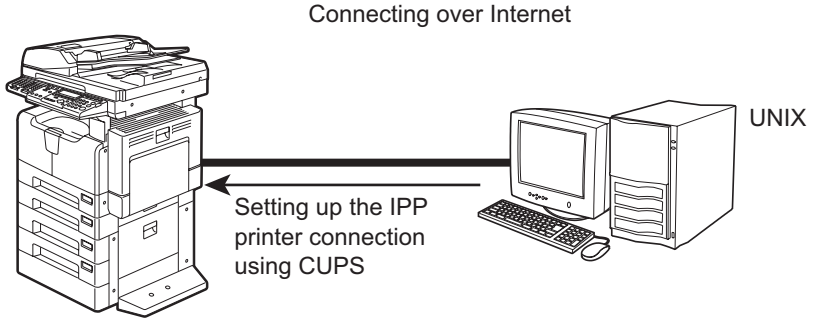
2 Set up the LPD Print Service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Print Service Settings (Printing Function)
  - 🕮 Setting up the LPD print

3 Install the CUPS for UNIX printing.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  - 🕮 Installing Client Software for UNIX

Setup flow for IPP printing (UNIX)



This equipment can be used with the IPP printer connection for UNIX workstation in a TCP/IP network using CUPS. Even though IPP printing can be used in a local area network, this method is commonly used to print over the Internet. If you allow IPP printing through the Internet, you must configure the DNS server to enable users to access this equipment over the Internet using the HTTP protocol. This is useful when users want to print to this equipment from outside the local area network.

Setup procedure

1 Set up the TCP/IP and the HTTP Network Service to enable TopAccess.

You should set the TCP/IP and HTTP Network Service from the control panel the first time you use it, to make TopAccess available.

- **Setup Guide for Printing Functions**
  5 CONFIGURING NETWORKS (EQUIPMENT)
  - 🕮 TCP/IP Configuration
  - 🕮 HTTP Configuration

  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the TCP/IP
  - 🕮 Setting up the HTTP network service

2 Set up the DNS Session to be available the services that use the DNS name with a DNS server.

The DNS Session should be configured when this equipment accesses the services, servers, and client computers using the DNS names instead of IP addresses.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the DNS session

3 Set up the DDNS Session if required.

If the DNS server supports the dynamic DNS service, please configure the DDNS Session to enable the dynamic DNS service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Network Settings (Printing Function)
  - 🕮 Setting up the DDNS session

4 Set up the IPP Print Service.

- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Print Service Settings (Printing Function)
  📖 Setting up the IPP print

5 Install the CUPS for UNIX printing.

- **Printing Guide**
  2 INSTALLING CLIENT SOFTWARE
  📖 Installing Client Software for UNIX

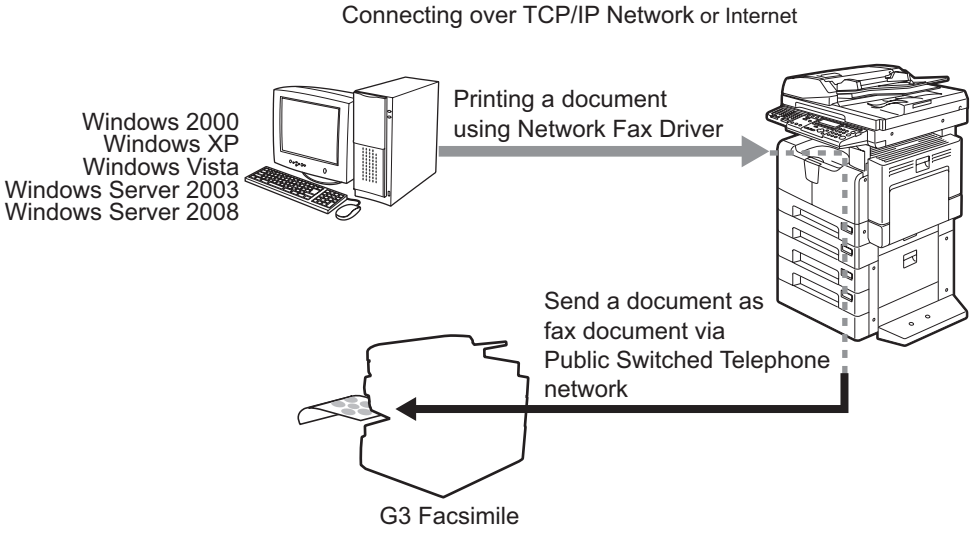
Setup Flow for Fax Features

This section describes the minimum setup flow to configure this equipment for Fax features.

Setup flow for network-fax transmission

Tip

The fax transmission using the Network Fax Driver is available only when the Network Printer Kit (optional) is installed in addition to the Fax Kit (optional) and the External Keyboard (optional).



Using the Network Fax Driver, users can send a document to this equipment as a print job. The equipment then sends the job to the fax numbers specified by the user through the Public Switched Telephone Network.
To send a fax through the Public Switched Telephone Network, users must configure the equipment accordingly.

System requirements

The Network Fax Driver is available for following computers:

- **Display resolution**
  1024 x 768 dots or more
- **Display color**
  High Color (16bit) or higher is recommended
- **CPU**
  Pentium 133 MHz minimum (Pentium 266 MHz or faster recommended)
- **Memory**
  The required memory size for OS.
- **OS**
  Windows 2000 Service Pack 4
  Windows XP Service Pack 1 / Service Pack 2 / Service Pack 3
  Windows Vista Service Pack 1 / Service Pack 2
  Windows Server 2003 Service Pack 1 or later
  Windows Server 2008 Service Pack 1 or later

Setup Procedure

1 Set up the Fax Settings.

Set the Fax device settings to enable the facsimile transmission from this equipment.

- **Operator's Manual for Facsimile Function**
  5 ENTERING & SETTING ITEMS
  - 🕮 Default Settings for Fax Function
  - 🕮 Registering the Terminal ID
- **Setup Guide for Printing Functions**
  10 TopAccess ADMINISTRATION TAB PAGE - SETUP MENU (Printing Function)
  Setting up Fax Settings
  - 🕮 Setting up the Fax settings

2 Install the Client Software for Network Fax.

- **Network Fax Guide**
  2 INSTALLING CLIENT SOFTWARE
  - 🕮 Installing Network Fax Software

2

SETTING UP NETWORK SERVER

This section describes the instructions on how to set up the network servers.

About Network Server Setup 32

Setting up Windows Print Server 33

Configuring the Windows print server 33

Setting up NetWare Print Server.....35

Setting up the NetWare in NDS mode 35

Setting up the NetWare in NDPS mode 36

Setting up the NetWare in iPrint mode.....41

About Network Server Setup

This chapter describes environments that typically include one or more network servers (Novell NetWare servers and Windows print servers) that will share printing to this equipment. It describes setting up servers that use IPX/SPX or TCP/IP protocols for communicating with this equipment. In addition, it includes some guidelines for setting up the DNS server.

Setting up Windows Print Server

If a Windows 2000, Windows XP, Windows Vista, Windows Server 2003, and Windows Server 2008 computer is connected to this equipment using TCP/IP, it can print directly to this equipment. If the computer shares the printer over the network, it is acting as a print server for Windows client computers. The client computers print to this equipment by printing to the Windows print server. Printing can then be monitored and controlled at the Windows print server machine. The Windows print server can also use AppleTalk protocols for printing to this equipment as an alternative to TCP/IP.

Note

When creating a printer to share with AppleTalk users, do not “capture” the printer. Capturing the printer forces all users to print to the server rather than directly to the printer. If you capture the printer, this equipment print connections will not appear in the Mac OS Chooser.

Configuring the Windows print server

To configure a Windows print server to communicate with this equipment, follow these general steps. More detail is provided in subsequent sections.

- Load the TCP/IP network protocol on the server and configure it with an IP address, subnet mask, and gateway.
- Make sure the Microsoft TCP/IP printing service is installed, and that the computer is using Raw TCP or LPR printing.
- On the Windows print server, install the appropriate printer drivers (if necessary) and share the printer on the network.
  P.33 “Installing the printer drivers as shared printers”
- Configure client computers for printing to the printer shared by the Windows print server.
  P.34 “Setting up the client computers”

Installing the printer drivers as shared printers

First, install the Windows printer drivers. The installation instructions in the ***Printing Guide*** can be used for every computer that will print directly and independently to this equipment. However, if you are an administrator running Windows 2000 Professional, Windows XP Professional, Windows Vista, Windows Server 2003, or Windows Server 2008, you can also create a printer and share it with client computers on the network. When a printer is shared, client computers who are not able or are not given permission to establish an independent network connection to this equipment can print through the server.
If you have not installed the printer files on the Windows print server computer, do so now following the instructions for Raw TCP or LPR printing in the ***Printing Guide***. Then, or if you have already installed the printer files on the computer you are using as a Windows print server, see your Windows documentation for information about sharing the printer.
In addition, the printer files for every Windows version can be installed to the shared printer so that Windows client computers can use the shared printer as a Point and Print printer, which enables client computers to download the appropriate printer driver from the shared printer.

Note

When installing the Windows 2000 PCL printer driver to the Windows 2000 server, you must clear the “Enable advanced printing features” check box on the Advanced tab of the printer properties dialog box.

Setting up the client computers

Each client computer of a Windows print server is already using a network protocol to communicate with the server. Each client computer can print to this equipment if the printer has been shared by a Windows print server. In that case the client computer does not have to use the same network protocol to connect to the Windows print server as the server uses to communicate with the equipment.
To set up printing on client computers, connect to the print server and select the shared printer. Right-click the printer and select [Open]. When prompted, click [Yes] to have Windows set up the printer.
After client computers have selected the printer, they can choose it from the Print Setup, Page Setup, or Print dialog box of their application. Client computers can change printing options for their own job, but printer properties are grayed and not available for changing. When a client computer prints a document, the job is transmitted to the Windows print server, and from there to this equipment.
The job is listed in the Print Manager on the client computer, and the administrator can track it in the Print Manager on the Windows print server.

Setting up NetWare Print Server

This equipment supports the following Novell printing services:

- NetWare 5.1 / 6.0 / 6.5 NDS mode (over IPX/SPX only)
- NetWare 5.1 / 6.0 / 6.5 NDPS mode
- NetWare 6.0 / 6.5 iPrint mode

This chapter provides an overview of how to set up this equipment as a Novell Network Printer, Print Server, or NDPS Printer Agent. For more detailed information, refer to your Novell documentation.

Setting up the NetWare in NDS mode

The following explains how to set up a NetWare file server with NDS so that network users can print to this equipment from their computers, and this equipment can obtain print jobs from the NetWare server. More detail is provided in your NetWare documentation.

Setting up the NDS with NetWare Administrator

1 **In NetWare Administrator, select the container object to create the printer and click the [Object] menu and select [Create].**
The New Object dialog box appears.

2 **In the Class of new object list, select “Print Queue” and click [OK].**
The Create Print Queue dialog box appears.

3 **Select “Directory Service Queue” and enter the name of the print queue in the Print Queue name field.**

4 **Click the browse button at the next to the Print Queue Volume field.**
The Select Object dialog box appears.

5 **Select the volume to create a print queue and click [OK].**

6 **Click [Create].**
The print queue is created.

7 **Click the [Object] menu and select [Create].**
The New Object dialog box appears.

8 **In the Class of new object list, select “Printer” and click [OK].**
The Create Printer dialog box appears.

9 **Enter the printer name, check the “Define additional properties” option and click [Create].**

10 **Display the Assignments window and click [Add].**
The Select Object dialog box appears.

11 **Select a created queue and click [OK].**

12 **Display the Configuration window, select “Other/Unknown” at the Printer Type drop down box and click [OK].**
The printer is created.

13 **Click the [Object] menu and select [Create].**
The New Object dialog box appears.

14 **In the Class of new object list, select “Print Server” and click [OK].**
The Create Print Server dialog box appears.

15 **Enter the print server name, check the “Define additional properties” option and click [Create].**
The print server name must be “MFP_[NIC Serial Number]”. You can find the Unit Serial Number of the equipment on the NIC Configuration list that can be printed from the control panel.

16 **Display the Assignments window and click [Add].**
The Select Object dialog box appears.

17 **Select a created printer and click [OK].**

18 **Click [OK] to close Assignments window for the print server.**
The print server is created.

Setting up the NetWare in NDPS mode

This equipment supports printing over NetWare 5.1 / 6.0 / 6.5 networks running either the TCP/IP protocols or the IPX protocol. For pure IP printing, this equipment takes advantage of features in NDPS (Novell Distributed Print Services).
An administrator can use either Novell Printer Gateway or TOSHIBA NDPS Gateway to set up the NetWare server in NDPS mode.
📖 P.36 “Setting up NDPS using Novell printer gateway”

Note

Setting up a NetWare environment correctly requires the presence and active cooperation of the Novell network administrator. You must have administrator privileges on the network to create new NDPS objects.

Setting up NDPS using Novell printer gateway

NDPS is not like the earlier queue-based versions of NetWare printing. Instead, you use an NDPS Manager and a Printer Agent, which control the tasks previously handled by a print queue, print server, and spooler. You can also make the printer driver available for clients to download from Windows client computers.

Before configuring the NetWare file server in NDPS mode, please confirm followings:
- For NetWare 5.1, the Support Pack 7 and Novell Gateway version 2.1.6 or later with ndps3sp2c are installed.
- For NetWare 6.5, the Support Pack 2 and Novell Gateway version 3.00 or later with ndps3sp2c are installed.
- Make sure you have a valid IP address for this equipment and for any computers that will print to it.
- In the equipment setup, enable TCP/IP and enter the IP address, Subnet mask, and Gateway address for this equipment.

Setting up the NDPS with NetWare Administrator

1 In NetWare Administrator, select the container object to create the printer and click the [Object] menu and select [Create].

The New Object dialog box appears.

2 Select “NDPS Broker” and click [OK].

The Create NDPS Broker Object dialog box appears.

Tip

If the NetWare file server has been installed as supporting the NDPS service, the NDPS Broker is created as default. In this case, you can use the default NDPS Broker.

3 Specify the “NDPS Broker Name” and “RMS Volume” options, and click [Create].

The NDPS Broker is created.

4 Click the [Object] menu and select [Create].

The New Object dialog box appears.

5 Select “NDPS Manager” and click [OK].

The Create NDPS Manager Object dialog box appears.

6 Specify the “NDPS Manager Name”, “Resident Server”, and “Database Volume” option, and click [Create].

The NDPS Manager is created.

7 After creating the NDPS Broker and NDPS Manager, please load the NDPS Broker and NDPS Manager by entering the following commands in the Console screen of the NetWare server.

load broker [Created NDPS Broker Name]
load NDPSM [Created NDPS Manager Name]

8 Double-click the NDPS Broker object that you created.

The NDPS Broker dialog box appears.

9 Click [Resource Management (RMS)].

10 Click [Add Resources...].

The Manage Resources dialog box appears.

Note

If the [Add Resources...] button is disabled, make sure that the broker is loaded. This button will be enabled only when the broker is loaded.

11 Select the applicable OS icon in the “Resource Types” list, and click [Add...].

The Add Resources dialog box appears.

12 **Click [Browse].**
The Select Printer Driver dialog box appears.

Note

The [Browse] button may not be available according to the Support Pack version. If the [Browse] button is disabled, specify "/DISABLETLSMGR" option when starting the nwadmin32.exe.

13 **Insert the Client Utilities CD-ROM into the CD-ROM drive.**
When inserting the Client Utilities CD-ROM, the installer may automatically start. Click [Cancel] to exit the installer and continue the operation.

14 **Locate the directory where the printer driver for your Windows version is located, select the INF file.**
- When you want to install the PCL6 printer driver for Windows 2000/XP/Vista/Server 2003/Server 2008, locate "[CD-ROM drive]:\W2K_XP_VISTA\PCL6\<language>".
- When you want to install the PS3 printer driver for Windows 2000/XP/Vista/Server 2003/Server 2008, locate "[CD-ROM drive]:\W2K_XP_VISTA\PS\<language>".

15 **Click [OK].**
Returns to the Add Resources dialog box.

16 **Click [OK].**
Returns to the Manage Resources dialog box.

17 **Repeat the procedure from Step 10 to Step 15 to add all printer drivers for the applicable OS.**

18 **Click [OK] to close the Manage Resources dialog box.**
Returns to the NDPS Broker dialog box.

19 **Click [OK] to close the NDPS Broker dialog box.**

20 **Click the [Object] menu and select [Create].**
The New Object dialog box appears.

21 **Select “NDPS Printer” and click [OK].**
The Create NDPS Printer Object dialog box appears.

22 **Specify the “NDPS Printer Name” option, select “Create a New Printer Agent”, and click [Create].**
The Create Printer Agent dialog box appears.

23 **Specify the “Printer Agent (PA) Name” and “NDPS Manager Name” option. Then select “Novell Printer Gateway” in the “Gateway Types” list and click [OK].**
The Warning dialog box appears.

24 **Click [OK] to load the NDPS Manager to the server.**
When it finishes initializing, the Information dialog box appears.

25 **Click [OK].**
The Configure Novell PDS for Printer Agent dialog box appears.

26 **Select "((NONE))" in the "Printer Type" list and select "Novell Port Handler" in the "Port Handler Type" list. Then click [OK].**

The Configure Port Handler for Printer Agent dialog box appears.

27 **Continue the procedure according to which connection type to be used.**

P.39 "Configuring the LPR connection in the TCP/IP network"
P.39 "Configuring the queue based connection in the IPX/SPX network"

Configuring the LPR connection in the TCP/IP network

1 **In the Configure Port Handler for Printer Agent dialog box, select "Novell LPR Printer Gateway (SNMP)" or "Remote (LPR on IP)" and click [Next].**

2 **Enter the IP address of this equipment in the "Host Address" field, and click [Finish].**

It takes about 60 seconds to load the Printer Agent. After it finishes loading the Printer Agent, the Select Printer Drivers dialog box appears.

3 **Select the printer drivers to be installed in the "Printer Drivers" list at each OS tab, and click [Continue].**

The Information dialog box appears.

4 **Click [OK].**

It takes about 60 seconds to complete the creation of the NDPS Printer object.

5 **Double-click the NDPS Printer object that you created.**

The NDPS Printer dialog box appears.

6 **Click [NDPS Remote Printer Management].**

7 **Check the "Install to workstation in this container" and click [Update].**

8 **Click [OK] to close the NDPS Printer dialog box.**

Configuring the queue based connection in the IPX/SPX network

1 **In the Configure Port Handler for Printer Agent dialog box, select "Forward Jobs to a Queue" and click [Next].**

2 **Enter the NDS queue name in the "Queue Name" field and the user name in the "Queue User Name" field. Then click [Finish].**

The Select Printer Drivers dialog box appears.

Note

The NDS queue must be created.

3 **Select the printer drivers to be installed in the “Printer Drivers” list at each OS tab, and click [Continue].**
The Information dialog box appears.

4 **Click [OK].**
It takes about 60 seconds to complete the creation of the NDPS Printer object.

5 **Double-click the NDPS Printer object that you created.**
The NDPS Printer dialog box appears.

6 **Click [NDPS Remote Printer Management].**

7 **Check the “Install to workstation in this container” and click [Update].**

8 **Click [OK] to close the NDPS Printer dialog box.**

Setting up the NetWare in iPrint mode

This equipment also supports the Novell iPrint.
Using the iPrint system, you can set up the printer that can be accessed using URL from client computers. The iPrint system is based on the NDPS architecture so that you must have NDPS installed and configured in the NetWare server.

Before configuring the NetWare file server in NDPS mode, please confirm followings:

- The NDPS Broker, NDPS Manager, and NDPS Printer must be created.
  P.37 “Setting up the NDPS with NetWare Administrator”
- The Novell iManager must be installed.
  For more information to install the Novell iManager, please see the documentation for the Novell iManager that is provided by Novell, Inc.

In order to set up the iPrint system, the network administrator must do the following:

1. Installing iPrint
   P.41 “Installing iPrint”
2. Enabling the DNS on the Printer Services Manager
   P.41 “Enabling DNS on the Printer Services Manager”
3. Enabling iPrint service
   P.42 “Enabling iPrint service”

Installing iPrint

1 Click [Novell] in the GUI screen of NetWare and select [Install].

2 Click [Add].

Tip

If the iPrint/NDPS is displayed in the list, iPrint has already been installed during the installation of NetWare. In that case, you do not have to operate the installation for iPrint.

3 Insert the NetWare Operating System CD-ROM into your CD-ROM drive.

4 Select the “PRODUCT.NI” file that is located in the root of the CD-ROM, and click [OK].

5 Follow the prompts to install iPrint/NDPS.

Enabling DNS on the Printer Services Manager

Before enabling DNS for the Printer Services Manager, you should add the DNS name for the Printer Services Manager to the DNS server.
After you add the DNS to the DNS server, follow the steps below to enable the DNS on the Printer Services Manager.

1 At the server console, enter the following syntax.

```
NDPSM <NDPS Manager Name> /dnsname=<NDPS Manager DNS Name>
```

Enabling iPrint service

After enabling DNS on the Printer Services Manager, enable the iPrint Service using the iManager.

Notes

- To do this, iManager must be installed on your NetWare server. For information about installing iManager, see the documentation for iManager that is provided by Novell, Inc.
- You must use a supported browser to access iManager. The supported browsers vary depending on the version of iManager that you installed.
  For iManager 1.5.2
  - Microsoft Internet Explorer 5.5 or later (Recommended)
  - Netscape 6.2 or later

  For iManager 2.0.x
  - Microsoft Internet Explorer 6 SP1 or later (Recommended)
  - Netscape 7.1 or later
  - Mozilla 1.4 or later

1 **Enter the URL “http://<IP address>:2200” in the address bar of your browser, and click the iManager link for the NetWare server under eDirectory iManager.**

2 **Enter the user name and password to log in to iManager.**

3 **Click [iPrint Management] in the Contents Panel and click [Manage Printer].**

4 **Select the printer that you created for the equipment.**

5 **Click [Client Support] and click [IPP Support].**

6 **Check the “Enable IPP Access” check box.**

7 **If you want to secure printing, check the “Require Security” check box.**
When the “Require Security” option is enabled, users must be authenticated to eDirectory using the user name and password.

8 **Click [Apply] and [OK] to save settings.**
The IPPSRVR.NLM is automatically loaded.

3

TROUBLESHOOTING

This section describes the troubleshooting for the network settings.

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Troubleshooting Overview

Since a network printing system consists of various factors such as hardware, networks and software components, it may be difficult to identify the cause of an error occurring in the system. The wide-ranging network configurations and user settings further complicate the troubleshooting process.
When data sent from a computer connected through a network cannot be printed with this equipment, follow the procedure below for troubleshooting.

1 Check the item below to see if the network settings have been correctly made according to Chapter 1 “EASY SETUP FLOW”.

🕮 P.45 “Network Setting Checklists”

2 Check the item below to see if the connected computers can detect this equipment through a network and also if the data can be printed out with this equipment.

🕮 P.50 “Equipment Detection and Printing Check”

Note

This manual describes only the network-related troubleshooting. For troubleshooting for hardware and client software, see the following manuals:

- **Quick Start Guide for Printing Functions**:
  Describes errors in hardware and error descriptions copied from other manuals.
- **Printing Guide**:
  Describes printer driver installation error messages and general errors of printer drivers.
- **Setup Guide for Printing Functions**:
  Describes errors that appear on TopAccess.

Network Setting Checklists

When a computer cannot print data to this equipment through a network, check if the settings are correctly made according to Chapter 1 “EASY SETUP FLOW” by referring to the checklists shown below. The checklist covers major printing setting items explained in Chapter 1 “EASY SETUP FLOW”.

Raw TCP or LPR printing in a Windows operating system environment:

No.	Check Item	Yes	No	Countermeasure
1	Are the IP Address properties correctly set?	Next Step ⇩	⇨	Set up the IP address correctly.
2	Is the Raw TCP Printing correctly set?	Next Step ⇩	⇨	Set up the Raw TCP print service correctly.
3	Is the LPR/LPD Printing correctly set?	Next Step ⇩	⇨	Set up the LPD print service correctly.
4	Were the proper printer drivers installed?	Next Step ⇩	⇨	See the ***Printing Guide*** to install proper printer drivers.
5	Is the Raw TCP or LPR port configured with correct IP address?	Next Step ⇩	⇨	See the ***Printing Guide*** to configure the proper port.
6	Can you print to this equipment?	**End**	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.55 “Cannot print data to this equipment”

IPP printing in a Windows operating system environment:

No.	Check Item	Yes	No	Countermeasure
1	Are the IP Address properties correctly set?	Next Step ⇩	⇨	Set up the IP address correctly.
2	Is the HTTP Server on this equipment enabled?	Next Step ⇩	⇨	Enable the HTTP server in the HTTP Network Service.
3	Is the IPP Printing correctly set?	Next Step ⇩	⇨	Set up the IPP print service correctly.
4	Were the proper printer drivers installed?	Next Step ⇩	⇨	See the ***Printing Guide*** to install proper printer drivers.
5	Is the IPP port configured with correct URL?	Next Step ⇩	⇨	See the ***Printing Guide*** to configure proper port.
6	Can you print to this equipment?	**End**	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.55 “Cannot print data to this equipment”

Printing via print server in a Windows operating system environment:

No.	Check Item	Yes	No	Countermeasure
1	Are the IP Address properties correctly set?	Next Step ⇩	⇨	Set up the IP address correctly.
2	Is the Raw TCP Printing correctly set?	Next Step ⇩	⇨	Set up the Raw TCP print service correctly.
3	Is the LPR/LPD Printing correctly set?	Next Step ⇩	⇨	Set up the LPD print service correctly.
4	Were the proper printer drivers installed?	Next Step ⇩	⇨	See the ***Printing Guide*** to install proper printer drivers.
5	Is the Raw TCP or LPR port configured with correct IP address?	Next Step ⇩	⇨	See the ***Printing Guide*** to configure the proper port.
6	Is the Windows print server correctly set?	Next Step ⇩	⇨	Set up the Windows print server correctly. 🕮 P.33 “Configuring the Windows print server”
7	Can you print to this equipment?	**End**	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.55 “Cannot print data to this equipment”

Novell printing in a NetWare environment:

No.	Check Item	Yes	No	Countermeasure
1	Are the IPX/SPX protocol enabled? Is the correct frame type selected?	Next Step ⇩	⇨	Set up the IPX/SPX correctly.
2	If applicable, did you successfully set up queue-based printing?	Next Step ⇩	⇨	Set up the NetWare server properly. 🕮 P.35 “Setting up NetWare Print Server”
3	Did you configure this equipment for NetWare connection?	Next Step ⇩	⇨	Set up the NetWare network settings correctly.
4	Did you configure this equipment for Novell print service?	Next Step ⇩	⇨	Set up the Novell print service correctly.
5	Were the proper printer drivers installed?	Next Step ⇩	⇨	See the ***Printing Guide*** to install proper printer drivers.
6	Is the IPP port configured with correct URL?	Next Step ⇩	⇨	See the ***Printing Guide*** to configure the proper port.
7	Can you see this equipment in Windows Network Neighborhood?	Next Step ⇩	⇨	Check that the SMB protocol is enabled in client computers.
8	Can you print to this equipment?	**End**	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.55 “Cannot print data to this equipment”

AppleTalk printing in a Macintosh environment:

No.	Check Item	Yes	No	Countermeasure
1	Is AppleTalk enabled on this equipment?	Next Step ⇩	⇨	Enable the AppleTalk.
2	Are the IP Address properties correctly set?	Next Step ⇩	⇨	Set up the IP address correctly.
3	Is this equipment available in the Chooser when you click the LaserWriter 8 printer icon?	Next Step ⇩	⇨	Make sure the AppleTalk zone is supported by the Macintosh client.
4	Can you access any other network device from the Macintosh computer?	Next Step ⇩	⇨	Refer to your Macintosh networking documentation or contact Macintosh technical support.
5	Can another Macintosh computer on the network print to this equipment? If so, compare the settings to determine which need to be changed to support printing from this machine.	**End**	⇨	Refer to your Macintosh networking documentation or contact Macintosh technical support.

LPR printing in a Macintosh environment:

No.	Check Item	Yes	No	Countermeasure
1	Are the IP Address properties correctly set?	Next Step ⇩	⇨	Set up the IP address correctly.
2	Is the LPR/LPD Printing correctly set?	Next Step ⇩	⇨	Set up the LPD print service correctly.
3	Were the proper printer drivers installed?	Next Step ⇩	⇨	See the ***Printing Guide*** to install proper printer drivers.
4	Is the LPR port configured with correct IP address?	Next Step ⇩	⇨	See the ***Printing Guide*** to configure the proper port.
5	Can you print to this equipment?	**End**	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.55 “Cannot print data to this equipment”

LPR printing in a UNIX environment:

No.	Check Item	Yes	No	Countermeasure
1	Are the IP Address properties correctly set?	Next Step ⇩	⇨	Set up the IP address correctly.
2	Is the LPR/LPD Printing correctly set?	Next Step ⇩	⇨	Set up the LPD print service correctly.
3	Were the proper printer drivers installed?	Next Step ⇩	⇨	See the ***Printing Guide*** to install proper printer drivers.
4	Is the LPR port configured with correct URI?	Next Step ⇩	⇨	See the ***Printing Guide*** to configure the proper port.
5	Can you print to this equipment?	**End**	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.55 “Cannot print data to this equipment”

IPP printing in a UNIX environment:

No.	Check Item	Yes	No	Countermeasure
1	Are the IP Address properties correctly set?	Next Step ⇩	⇨	Set up the IP address correctly.
2	Is the HTTP Server on this equipment enabled?	Next Step ⇩	⇨	Enable the HTTP server in the HTTP Network Service.
3	Is the IPP Printing correctly set?	Next Step ⇩	⇨	Set up the IPP print service correctly.
4	Were the proper printer drivers installed?	Next Step ⇩	⇨	See the ***Printing Guide*** to install proper printer drivers.
5	Is the IPP port configured with correct URL?	Next Step ⇩	⇨	See the ***Printing Guide*** to configure proper port.
6	Can you print to this equipment?	**End**	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.55 “Cannot print data to this equipment”

Equipment Detection and Printing Check

When a computer cannot detect this equipment through a network or when network printing is disabled, see the following items to solve the problem:

Note

If the problem persists after you have followed all of the steps, contact your service representative.

Cannot detect this equipment -1

Problem description

After configuring this equipment, you cannot detect it over the network. This could be the result of configuration conflicts within this equipment, but is more likely to be caused by network configuration errors.
The checklist below helps you identify the cause of the error and search for more information about resolving it.

No.	Check Item	Yes	No	Countermeasure
1	Print out a NIC status page. Examine the protocol settings that print out on the NIC status page. Are they correct?	Next Step ⇩	⇨	Set up the proper protocols.
2	Print out a configuration page. Make sure there are not any discrepancies or inconsistencies between the current network settings and your network environment. Change the network settings, if necessary. Use the Find Computer utility from your Windows computer to locate this equipment by its device name. Can you find this equipment?	Next Step ⇩	⇨	Set up the proper protocol if required. Once you find this equipment, configure the port that it is mapped correctly to the device.
3	Can you locate other computers that are in the same network as this equipment?	Next Step ⇩	⇨	Check the network settings on the client computer to make sure they are compatible with the network settings on this equipment.
4	Check link LED activity on the hub and/or NIC of this equipment and the client computer. Do the hardware components appear to be functioning properly?	Next Step ⇩	⇨	Contact your service representative.

No.	Check Item	Yes	No	Countermeasure
5	Make sure that the device name for this equipment is unique and verify that the WINS and/or DNS server database are not causing potential naming conflicts with the network settings on this equipment. If necessary, change the network settings on this equipment. After the communication comes back online, can you detect this equipment in the network?	Next Step ⇩	⇨	Set up the NetBIOS name of the device correctly.
6	If the network environment is using complex subnet or supernet structures, is the IP address used by this equipment within the network structures range of valid addresses?	**End**	⇨	Please contact your local network support specialist for further assistance.

Cannot detect this equipment -2

Problem description

This equipment is detected automatically using SNMP.
When AddressBook Viewer cannot automatically detect this equipment over the network, the most likely cause is the limitations of the protocols on the supporting computers. In some cases, you need to add or update network components.
The following checklist helps you identify the source of the error and directs you to where you can find more information about solving it.

No.	Check Item	Yes	No	Countermeasure
1	Is the SNMP enabled on this equipment? Is “public” is specify for the Read Community? Is “private” is specify for the Read Write Community?	Next Step ⇩	⇨	Enable the SNMP (MIB) and confirm the Read Community and Read Write Community setting.
2	Confirm that the protocol suite installed on the client computer has been updated with the latest software for the given operating system. If your network only supports the IPX/SPX protocol, make sure that the most current version of Novell Client software is installed.	Next Step ⇩	⇨	See the vendor’s Web site for information about product updates and technical supports.

No.	Check Item	Yes	No	Countermeasure
3	Print a NIC Configuration page from this equipment. Does this equipment support the same protocol as the network?	Next Step ⇩	⇨	Configure the proper protocol.
4	Change the protocol settings from TopAccess, if necessary, and reboot the equipment for the changes to take effect. Repeat step 2. Was the device detected?	**End**	Next Step ⇩	
5	Check the NIC Configuration page. Are the IP Address and subnet mask settings correct?	Next Step ⇩	⇨	Set up the TCP/IP settings correctly.
6	Check the router to make sure it is not filtering out this equipment packets. Is the router processing equipment packets correctly?	Next Step ⇩	⇨	Adjust the router settings.
7	Can another computer within the same network segment detect this equipment?	Next Step ⇩	⇨	Refer to the following section to troubleshoot the condition. 🕮 P.45 “Network Setting Checklists”
8	Check the NIC Configuration page. Is the Unit Serial Number part of the device name?	Next Step ⇩	⇨	Contact your service representative.
9	Check link activities on the port being used by this equipment and the integrity of the network cable, hub, or switch that connects this equipment to the network. Replace any network components that you can tell or suspect are faulty.	**End**	⇨	

Cannot ping this equipment

Problem description

You can check if this equipment is correctly connected to a network by executing a ping command from a computer.
If this equipment does not respond when you ping it, there is a problem either with the network configuration or with device operation.
The following checklist helps you identify the source of the error and directs you where you can find more information about solving it.

No.	Check Item	Yes	No	Countermeasure
1	Confirm that the TCP/IP protocol suite is installed on the client computer.	Next Step ⇩	⇨	The networking section of your operating system documentation.
2	Look at the NIC configuration page and confirm the TCP/IP settings are correct. Is the IP Address entered and valid? Are the Gateway and Subnet settings correct?	Next Step ⇩	⇨	Enter the correct TCP/IP settings.
3	Reboot this equipment. Check the NIC Configuration page that prints out. Are the TCP/IP settings correct?	Next Step ⇩	⇨	The settings are not binding, contact your service representative.
4	Try to ping this equipment again. Did this equipment respond to the ping?	**End**	Next Step ⇩	
5	Can you ping this equipment from any other computer within the same network? If not, this equipment might have an IP Address that is out of range or invalid.	Next Step ⇩	⇨	Contact your local network specialist for a valid IP address for this equipment.
6	Can you ping to another computer within the same network?	Next Step ⇩	⇨	Check the computer's protocol settings to make sure the gateway and subnet settings are correct.
7	If you have customized the device name, you can check if the NIC is functional by restoring the default settings. When this equipment automatically reboots and a NIC Configuration page prints, does the device name include the NIC's Unit Serial Number?	Next Step ⇩	⇨	The NIC is faulty or improperly installed. Contact your service representative.

No.	Check Item	Yes	No	Countermeasure
8	Check link activities on the port being used by the equipment and also the integrity of the network cable, Hub, or Switch that is connecting the equipment to the network. Replace any network components that you suspect are faulty. Can you ping this equipment now?	**End**	⇨	Contact your service representative.

Cannot print from client computer

Problem description

After following the instructions in this guide to install and configure your hardware, network, and client software, you are still unable to print from a client computer to this equipment. This problem can arise as the result of a hardware malfunction, a network communication or configuration problem, or incorrect client computer setup or driver properties.
The following checklist will help you identify the source of the errors and direct you to information solving the issue.

No.	Check Item	Yes	No	Countermeasure
1	Is the copier functioning normally? Do copy jobs output properly?	Next Step ⇩	⇨	Check the device status displayed in the Device tab page of TopAccess.
2	Check the Device page of TopAccess. Are the options specified for the job supported by the hardware configuration? If not, delete the job, install the required components, and try again.	Next Step ⇩	⇨	Contact your service representative.
3	Can you print jobs from other client computers?	Next Step ⇩	⇨	Refer to the following section to troubleshoot the condition. 📖 P.55 “Cannot print data to this equipment”
4	At this point, the problem you have identified is most likely related to a client computer-side error. Refer to the ***Printing Guide*** to troubleshoot the error condition.			

Cannot print data to this equipment

Problem description

When you are unable to print to this equipment, network printing services have not been set up correctly, or this equipment has not been properly configured to operate in your network environment. The following checklist will help you identify the source of the error and direct you to information solving the issue.

No.	Check Item	Yes	No	Countermeasure
1	Have you set the protocol settings so they are compatible with your network and client computer protocol settings? If data sent from a specific computer through a network to this equipment are successfully printed, this could be a network configuration error, not a hardware malfunction or the incorrect connection of this equipment.	Next Step ⇩	⇨	Set up the proper protocol.
2	Have you set up the appropriate type(s) of print services should be supported?	Next Step ⇩	⇨	Check the settings required for your printing environment. 🕮 P.13 “Setup Flow for Printing Features”
3	If you are using Novell print services, did you set up the Novell side of network printing, such as creating print servers and attaching the print queue?	Next Step ⇩	⇨	Set up the NetWare server. 🕮 P.35 “Setting up NetWare Print Server”
4	If you set up Novell print services, can you see the print job using PCONSOLE or NWAdmin?	Next Step ⇩	⇨	Refer to your Novell PCONSOLE or NWAdmin user documentation for help with using these utilities.
5	Have you checked the gateway and subnet settings to make sure this equipment is part of the same network Gateway as the client computer from which you are trying to print?	Next Step ⇩	⇨	Set up the TCP/IP correctly.
6	Are other services and communications performed over the network behaving in the normal and expected manner?	**End**	⇨	Refer to your network documentation or use a network diagnostic utility to research a network problem.

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MULTIFUNCTIONAL DIGITAL SYSTEMS

Network Administration Guide for Printing Functions

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