

Network Administration Library Services Installation and Setup Guide

Changes are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions.

The content of this book is based on the Services 11.0 Release.

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Purpose The *Services Installation and Setup Guide* describes all that you need to know to install and set up your network services. This book explains all the service installation and setup commands and shows how these commands are used to perform service-related tasks.

Intended audience This publication is intended for System Administrators who are responsible for installing and setting up their network services.

Before you read this book Read the *Guide to System Administration Activities* for an understanding of your duties as System Administrator, for background information about your services and the installation and setup procedures, and for the worksheets you need to fill out before you begin using this book.

The *Services Installation and Setup Guide* contains step-by-step procedures for installing and setting up the services that run on your Xerox network.

Services installation and setup

Installation of services involves several steps:

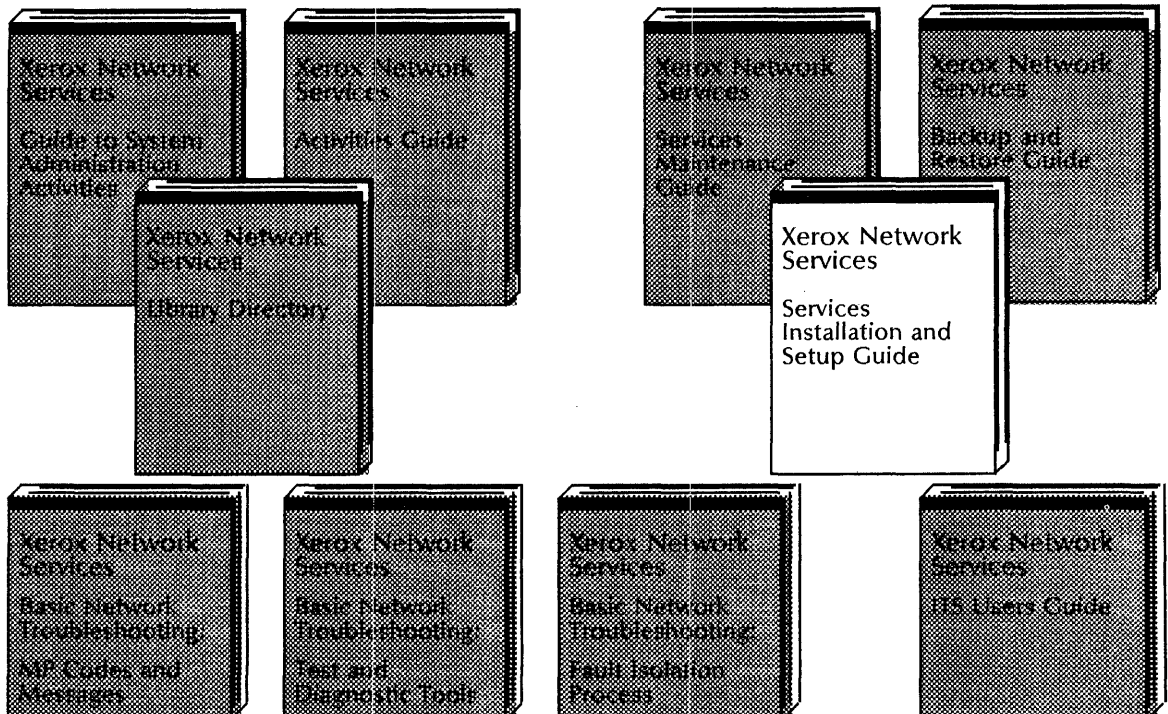
1. Fill out the appropriate worksheets in the *Guide to System Administration Activities*. You will need the information in the worksheet when you install the Services System Software for the first time and set up each service.
2. Review the Services System Software chapter in the *Guide to System Administration Activities*. This chapter explains general server operating conventions.
3. Work with your Xerox Systems Analyst to install the server and services software, and to respond to the initialization prompts of the server. The Server Software Installation chapter in this book contains the step-by-step procedures for this activity.
4. Initialize each service that you installed. Initialization involves naming the service, registering it with the Clearinghouse, and providing any additional information. The service-specific chapters in this book contain the step-by-step procedures for each service.
5. After you run the services for the first time, configure and set them up. This activity is different for each service. The service-specific chapters in this book contain the step-by-step procedures for each service.

For a discussion of the planning and other considerations that precede the installation and setup of each service, see the *Guide to System Administration Activities*.

Network Administration Library organization

The *Services Installation and Setup Guide* is one of the books that make up the Network Administration Library (see Figure 1-1).

Figure 1-1. Network Administration Library organization



The *Guide to System Administration Activities* contains background and task-related information for daily network operations. Store completed worksheets, activity logs, and other server or service-related information in the *Activities Guide*.

The *Services Installation and Setup Guide*, *Services Maintenance Guide*, *Backup and Restore Guide*, and *Basic Network Troubleshooting* contain step-by-step procedures for your duties as System Administrator.

How to use this book

Each chapter in this book covers the step-by-step installation and setup procedures for a particular service.

Contents

Each chapter in this book is organized for ease of use. Before you begin to use the procedures in this book, familiarize yourself with the contents of a typical service chapter.

Prerequisites

The "Prerequisites" section lists anything you may need—equipment, software, or completed worksheets—before you can perform the procedures in the chapter.

Commands

The “Commands” section lists all the commands you may need to use to install, initialize, and set up the service. An illustration shows you at a glance which commands are available to you when you are logged off, logged on, or enabled, and when the service is stopped or started. The command descriptions also identify the procedures that use each command.

Procedures

The “Procedures” section begins with a list of the procedures described in the section, along with the purpose of each. The individual procedures in this section have these components:

- An overview of the purpose of the procedure, which may include a flowchart of the major steps.
- A list of specific prerequisites you need before beginning the procedure, when applicable.
- The step-by-step procedure, with screen prompts and graphic aids where needed.
- A wrap-up summarizing what you have just accomplished and recommending administrative tasks you should perform to keep your records up-to-date. The wrap-up refers you to required procedures in other services, when applicable.
- An example screen showing a hypothetical application of the procedure.

Documentation conventions

The books in the Network Administration Library use these writing conventions to help you recognize information.

⇐ This symbol means “press RETURN.” When you see it after a procedural step, press the RETURN key on the terminal keyboard.

BREAK Words appearing in all capital letters represent the keys or switches on your equipment.

<service name> Words appearing in angled brackets represent system-supplied information.



WARNING: Warnings appear immediately before any action that may cause physical harm to you or your equipment. Make sure you understand the warning before you perform the action.



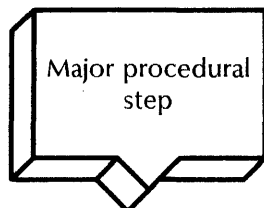
CAUTION: Cautions appear immediately before any action that may destroy the data stored on your network. Make sure you understand the potential impact of the action before you perform it.



Notes are helpful hints that help you perform a task or understand the text.

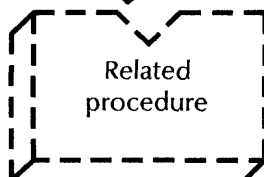


This symbol means that you can perform the procedure from a workstation using Remote System Administration (RSA). If you need to record any information while performing the procedure, you can use the RSA Make Document (or Make Screen) feature.



This symbol represents a major step in a procedure. Flowchart boxes outlined with a solid rule represent major steps in the current procedure.

Flowchart boxes outlined with a dashed rule represent other procedures you need to perform before or after the current procedure.



The flowcharts are not a substitute for the step-by-step instructions. The flowcharts do not include details that may be crucial to the success of a procedure.

Logging on and enabling in a service context

Many procedures require you to have logged-on and enabled status, be in the context of the service, or both. To perform these procedures, you must know how to use the server commands **Logon** and **Enable**, and how to enter the context of a service. The **Logon** and **Enable** commands are common to all services.

See the *Guide to System Administration Activities* in the Services System Software chapter for more information about commands and contexts.

Logged-on and enabled status

	Your status determines which commands you can use.
Any user	A user who has not logged on.
Logged-on user	A user who has issued the Logon command and has been successfully authenticated as a member of any Clearinghouse domain.
Enabled user	A logged-on user who has successfully issued the Enable command as a result of having administrative access to the server's domain.

Service context

- You must be in the context of a particular service to use its commands.
- You do not need to be logged on or enabled to type in and enter the context of a service.

Step-by-step

1. Type **Logon** .

User name:

2. Type your registered name at the "User name" prompt **↵**.

Password:

3. Type your registered password at the "Password" prompt **↵**.

>

You are now logged on.

4. Type **Enable** if you need and have permission to access a System Administration command **↵**.

!

You are now logged on and enabled.

5. Type the service name **↵**.

You are now logged on and enabled in the context of the service. You can use any of the service commands.

Example

The following example shows what you see when you log on and enable in the Interactive Terminal Service context. Note that when you type your password, asterisks are displayed to protect your password. Note also that when you enter **Enable**, the prompt changes from > to ! to show that you are enabled.

```
> Logon
   User name: Ginny Martin
   Password: *****
> Enable
! Interactive Terminal Service
ITS!
```

Using Remote System Administration

To use Remote System Administration, follow the steps below.

Prerequisites

- If you will be using RSA from a remote personal computer, ensure that the Asynchronous Communication Protocol software is loaded and running in the loader icon.
- Ensure that the Remote System Administration software is loaded and running in the loader icon.
- Ensure that a port icon and a TTY icon are on your desktop.
- Ensure that the Remote Executive option in your server profile is greater than zero. See the “Changing the server profile” section in the Services System Software chapter of the *Guide to System Administration Activities* for information about the server profile.

Step-by-step

1. Copy the Network Management Terminal Emulator TTY icon to your desktop.
2. Open the Network Management Terminal Emulator TTY icon, and then the port icon.
3. Copy the port icon representing the server you want to your desktop.
4. Open the port icon.
5. Select [Start] on the TTY options sheet to begin communication with the server and open a remote administration (emulation) window.
6. Select a location inside the window and begin your session.
7. Perform the System Administration functions just as you would at the server.
8. If the VP Document Editor is running, you can make a copy of all or some of your session. Select [Make Document] or [Make Screen] from the emulation window.



If you use the Make Screen feature, you capture only what is displayed on the screen.

9. When the session is complete, log off the server.
10. Type **Quit** and press RETURN.
11. Select [Close] from the emulation window header.

References

For complete information on Remote System Administration, see the Workstation Administration chapter in the *Workstation Administration and System Resources* volume of the VP Series Reference and Procedures Library.

For information about loading workstation applications software, see the *ViewPoint* volume of the VP Series Reference and Procedures Library.

For information about TTY emulation, see the VP Terminal Emulations chapter in the *Host Interfaces* volume of the VP Series Reference and Procedures Library.

2. Server software installation

This chapter contains the procedures for installing software on an 8000 or 8090 server processor. The procedures cover three installation scenarios:

- Installing Services System Software and services software on a server connected to an existing network. An existing network includes other servers that run a Clearinghouse Service.
- Installing Services System Software and services software on the first or only server on a network. This server must run at least one Clearinghouse. This scenario is called a Genesis Clearinghouse Service installation.
- Installing Services System Software and services software on a server to be connected to another network by means of an Internetwork Routing Service link. The other site contains the Clearinghouse Service in which all local client networks are registered. This scenario is called a Genesis Internetwork Routing Service installation.

Do not use these procedures to install additional services on an existing server. See the procedure "Installing additional services" in the Services System Software chapter of the *Services Maintenance Guide*.



CAUTION: It is extremely important that you read and follow the installation procedures exactly as they are written to install the services correctly.

Prerequisites

Complete the general prerequisites before you begin any installation. You must complete other prerequisites for each type of Genesis installation.

Any installation

- Read the Services System Software chapter in the *Guide to System Administration Activities*.
- Have handy these completed worksheets:
 - Services Installation Worksheet
 - Software Options Worksheet

You filled out these worksheets when reading the *Guide to System Administration Activities*, and placed completed copies in the *Activities Guide*.

- Have all the software (floppy disks or cartridge tapes) you need.

- Ensure that the proper hardware is installed.
- Have the software option and organization passwords for your organization.
- Format disk packs, if necessary.
- If you are not installing the first server, make sure you have administrative access for your site.

Genesis Clearinghouse installation

- Have the name and the password for the organization you registered with the Software Control Center.
- Know your Ethernet number from your Systems Analyst.
- Know the exact time and date.

Genesis Internetwork Routing Service installation

- Have handy these completed worksheets:
 - Internetwork Routing Service Worksheet
 - External Communication Service Worksheet
- Ensure that your first server has an Internetwork Routing Service and, if you are using a Communication Interface Unit (CIU), an External Communication Service.
- Coordinate with the System Administrator at the site with which you will interconnect, so you have administrative access to the domain.
- Know your Ethernet number from your Systems Analyst.
- Know the exact time and date.

Commands

This section lists the server commands you use to install software. You can use some of these commands only in a particular context, as defined in the command descriptions.

Table 2-1 shows the server setup commands for installation, along with the logged on status and the server state (started or stopped) for accessing the command during normal server operation.

NOTE

The logged on status and the server state do not apply to some steps of the installation. See "Server and services states" in the Services System Software chapter of the *Guide to System Administration Activities* for more information about command availability during installation.

Table 2-1. **Server installation commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Circuit (IRS)					•	•
Add Communication Interface Unit (ECS)						•
Add Domain (CHS)						•
Add User (CHS)					•	•
Add X.25 Network (IRS)					•	•
Change Domain Access (CHS)					•	•
Change Organization Access (CHS)					•	•
Enable			•	•		
Install Service					•	•
Logon	•	•				
Proceed					•	•
Register (IRS)					•	•
Register Server					•	•
Run Service						•
Show Logged On User	•	•	•	•	•	•
Start Circuit (IRS)						•
Start Service						•
Stop Service					•	•
Verify Clearinghouse Entries (ECS)					•	•

Add Circuit

Available to the enabled user when the Internetwork Routing Service is started. The External Communication Service must be stopped to add circuits on a Communication Interface Unit. Defines a new circuit to the Internetwork Routing Service. You must be in the Internetwork Routing Service context to use this command.

Related procedure: Step 14. Adding an Internetwork Routing Service circuit

Add Communication Interface Unit

Available to the enabled user when the External Communication Service is stopped. Registers Communication Interface Units with the External Communication Service. You must be in the External Communication Service context to use this command.

Related procedure: Step 12. Adding a Communication Interface Unit

Add Domain

Available to the enabled user when the Clearinghouse Service is stopped. Adds a new domain to the local database. You must be in the Clearinghouse Service context to use this command.



When a domain is added to an internetwork for the first time, the System Administrator must have access to the organization that will contain the domain. If a domain is created in a new organization, the System Administrator must provide an organization-specific password.

Related procedure: Step 9. Running the Clearinghouse Service

Add User

Available to the enabled user when the Clearinghouse Service is started or stopped. Lets you register a user by a fully qualified name, description, password, File Service, and aliases. You must be in the Clearinghouse Service context to use this command.

Related procedure: Step 9. Running the Clearinghouse Service

Add X.25 Network

Available to the enabled user when the Internetwork Routing Service is started. Defines the data link parameters of an X.25 line. You must be in the Internetwork Routing Service context to use this command.

Related procedure: Step 13. Adding an X.25 network

Change Domain Access

Available to the enabled user when the Clearinghouse Service is started or stopped. Grants or revokes System Administration access for a specific domain. You must be in the Clearinghouse Service context and have administrative access to the specified domain to use this command.

Related procedure: Step 9. Running the Clearinghouse Service

Change Organization Access

Available to the enabled user when the Clearinghouse Service is started or stopped. Grants or revokes administrative access for a specific organization. An Organization Administrator can create new domains within that organization and designate other Organization Administrators. You must be in the Clearinghouse Service context and have administrative access to the specified organization to use this command.

Related procedure: Step 9. Running the Clearinghouse Service

Enable

Available to the logged-on user. Enables access to the System Administrator commands if the user is a Domain Administrator for the server's domain. To indicate that the logged-on user is enabled, the Executive prompt character changes to an exclamation point (!).

Related procedures: Step 15. Starting the Internetwork Routing Service

- Install Service** Available to the enabled user. Copies the files required to run a service from the installation medium to the local rigid disk. This command lets you indicate whether the service should be run automatically at every server startup, or must be started manually.
Related procedure: Step 8. Installing the services
- Logon** Available to any user. Identifies and authenticates a user. If you are registered in a currently accessible Clearinghouse domain, and if your password matches the one registered with your name in that Clearinghouse database, the logon succeeds. Once logged on, you have access to several commands not available when you are logged off.
Related procedures: Step 7. Entering your network number and server name; Step 9. Running the Clearinghouse Service; Step 15. Starting the Internetwork Routing Service
- Proceed** Available at all initialization interrupt points. Leaves an interrupt point and continues server initialization. All activated services are run during server initialization.
Related procedure: Step 16. Completing the installation
- Register** Available only if the Internetwork Routing Service is unable to check its Clearinghouse information when started. Registers the Internetwork Routing Service with a Clearinghouse. You must be in the Internetwork Routing Service context to use this command.
Related procedure: Step 15. Starting the Internetwork Routing Service
- Register Server** Available to the enabled user. Registers or verifies the server name and description with the Clearinghouse Service. Because the server performs these operations automatically, use this command only when you suspect that registration or verification did not succeed.
Related procedures: Step 9. Running the Clearinghouse Service; Step 15. Starting the Internetwork Routing Service
- Run Service** Available to the enabled user. Runs the software files for a service not currently running, bringing the service to a fully operational state. Use this command to invoke a non-normal service startup, or to run and configure a service before you run other coresident services.
Related procedures: Step. 10. Running the Internetwork Routing Service; Step 11. Running the External Communication Service
- Show Logged On User** Available to any user. Displays the name of the logged-on user and indicates whether the user is a System Administrator.
Related procedures: Step 9. Running the Clearinghouse Service; Step 15. Starting the Internetwork Routing Service
- Start Circuit** Available to the enabled user when a circuit is stopped. Allows the Internetwork Routing Service to acquire the port and start the circuit. You must be in the Internetwork Routing Service context to use this command.
Related procedure: Step 15. Starting the Internetwork Routing Service

1

- Start Service** Available to the enabled user. Starts the currently loaded and stopped services you select. This command reverses the effects of a **Stop** command or explicitly starts a service after a service-specific failure.
- Related procedure:** Step 15. Starting the Internetwork Routing Service
- Stop Service** Available to the enabled user. Stops the currently loaded and started services you select. This command reverses the effects of a **Start** command so you can change certain parameters.
- Related procedure:** Step 9. Running the Clearinghouse Service
- Verify Clearinghouse Entries** Available to the enabled user when the External Communication Service is started or stopped. Updates the entries in the Clearinghouse database. You must be in the External Communication Service context to use this command.
- Related procedure:** Step 15. Starting the Internetwork Routing Service

Installation procedures

This section contains these software installation procedures.

Step 1. Booting the Services Installer utility

Use this step to boot the installer and the server.

Step 2. Setting the time and date

Use this step to set the current time and date on the server.

Step 3. Partitioning the server disk

Use this step to partition the server disk so you can install software.

Step 4. Installing system software

Use this step to install the system software on your server.

Step 5. Starting the system

Use this step to start for the first time the system you installed on the server.

Step 6. Setting software options

Use this step to set the software options for the services you will be running on the server.

Step 7. Entering your network number and server name

Use this step to enter the network number and the name of the new server, or to confirm the existing number and name.

Step 8. Installing the services

Use this step to install the services on your server.

Step 9. Running the Clearinghouse Service

Use this step to run the first Clearinghouse Service on your server.

Step 10. Running the Internetwork Routing Service

Use this step to run the Internetwork Routing Service if you are connecting to another network.

Step 11. Running the External Communication Service

Use this step to run the External Communication Service if you are using a Communication Interface Unit to establish the Internetwork Routing Service link.

Step 12. Adding a Communication Interface Unit

Use this step to add a Communication Interface Unit.

Step 13. Adding an X.25 network

Use this step to add an X.25 link on the Internetwork Routing Service.

Step 14. Adding an Internetwork Routing Service circuit

Use this step to add one of four types of Internetwork Routing Service circuits.

Step 15. Starting the Internetwork Routing Service

Use this step to connect to the remote network, and to register the service and server with the remote Clearinghouse Service.

Step 16. Completing the installation

Use this step to proceed to the setup of all services.

The procedures in this section apply for all types of installations. However, not all procedures are appropriate for every installation.

For a non-Genesis installation, use:

- Step 1
- Step 2 if your server cannot reach another server to set the time and date
- Steps 3 through 7
- Step 16

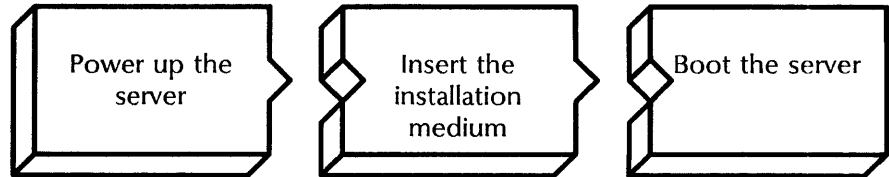
For a Genesis Clearinghouse Service installation, use:

- Steps 1 through 9
- Step 16

For a Genesis Internetwork Routing Service installation that:

- Establishes a link via the Internetwork Routing Service, use
 - Steps 1 through 8
 - Step 10
 - Steps 14 through 16
- Establishes an Internetwork Routing Service link using the External Communication Service and the Communication Interface Unit, use
 - Steps 1 through 8
 - Steps 10 through 12
 - Steps 14 through 16
- Establishes an Internetwork Routing Service link using the X.25 public data network, use
 - Steps 1 through 8
 - Step 10
 - Steps 13 through 16

Step 1. Booting the Services Installer utility



The first step in installing your server and services software requires that you power up the server and boot the Services Installer utility.

Prerequisite

Format a disk pack if your server is configured with removable disk drives.

Step-by-step

1. Power up the server, pressing the 0/1 rocker switch on the maintenance panel to the 1 position.
2. Turn on the display terminal.
 - a. Press the ON/OFF rocker switch on the terminal to the ON position.
 - b. Set the intensity adjustment at the upper right of the keyboard.
3. Insert the installation medium.
 - For an 8000 server, insert the floppy disk labeled "Services System Software # 1 (Fixed Disk)" or "Services System Software # 1 (Removable Disk)" into the floppy disk drive.
 - For an 8090 server, insert the cartridge tape labeled "XC80 Services System Software and Network Services for the 8090 Server" into the cartridge tape drive. Slide in the tape with the metal side down and the open side of the cartridge to the left. Push the tape all the way into the drive until it stops, then quickly release it. See the appendix in the *Services Maintenance Guide* for more information on cartridge tape insertion.
4. Boot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0002, release the Alternate Boot (ALT B) button.



The maintenance panel displays 0068 if the cartridge tape is not inserted or ready. If the tape is inserted, the message disappears in a few moments, after the server reads the cartridge tape.

If you are booting from floppy disk, it takes 13 minutes for the next message to appear. If you are booting from cartridge tape, the message appears in 22 minutes.

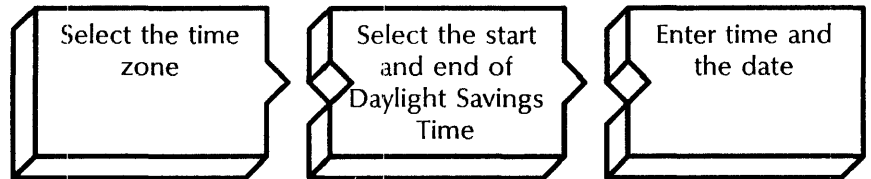
```

Installer Version <number>
Copyright (C) 1987 by Xerox Corporation. All rights reserved.
Processor = <number> = <number> = <number>
Memory size = <number> K Bytes
    
```

Wrap-up

You do not see this message if you are installing the first server on your site. Proceed to "Step 2. Setting the time and date."
 If the server is connected to a network that has the current time and date set, proceed to "Step 3. Partitioning the server disk."

Step 2. Setting the time and date



In this step, you set the current time and date for the server.

Prerequisite

Know the correct time and date.

Step-by-step

```

Locating Time Server...Time is not set.
Time zone offset from Greenwich (-12...12):
    
```

1. Type the offset for your Standard Time (even if you are currently observing Daylight Savings Time) at the "Time zone offset from Greenwich (-12...12)" prompt and press RETURN. Select the number for the geographical area where you are installing the server:
 - 5 Eastern Standard Time
 - 6 Central Standard Time
 - 7 Mountain Standard Time
 - 8 Pacific Standard Time
 - +0 United Kingdom
 - +1 Western Europe (excluding the United Kingdom)

The default time zone is -8.

```

Minute offset (0-59):
    
```

2. Type 0 at the "Minute offset" prompt ↵.

First day of Daylight Savings Time (0...366):

3. Type the appropriate number at the "First day of Daylight Savings Time (0...366)" prompt \Leftarrow .
- The default value is 98 for states in the United States and Canada using Daylight Savings Time. If the default value is correct, press RETURN.
 - To change the default value, select the number for the geographical area where you are installing the server:
 - 0** Parts of the United States not using Daylight Savings Time (parts of Illinois and Arizona)
 - 91** United Kingdom
 - 91** Western Europe (excluding the United Kingdom)

Last day of Daylight Savings Time (0...366):

4. Type the appropriate number at the "Last day of Daylight Savings Time (0...366)" prompt \Leftarrow .
- The default value is 305 for states in the United States and Canada using Daylight Savings Time. If the default value is correct, press RETURN.
 - To change the default value, select the number for the geographical area where you are installing the server:
 - 0** Parts of the United States not using Daylight Savings Time (parts of Illinois and Arizona)
 - 303** United Kingdom
 - 274** Western Europe (excluding the United Kingdom)

Current time: < date time >
Do you wish to change the time (Y/N)?:

5. Type **Y** at the "Time" prompt \Leftarrow .
- Y** Lets you change the date and time to current settings. **Continue with step 6.**
 - N** Lets you keep the default date and time. **Skip to step 8.**
6. Type the current date and time at the "Time" prompt \Leftarrow .

Please Enter the date and 24 hour time in form MM/DD/YY
HH:MM:SS
Time:

Use this format:

- MM/DD/YY HH:MM:SS; for example, 07/01/84 16:02:30 (24-hour clock).

```
Set time to <date> <time>
Okay? (Y/N):
```

7. Type **Y** at the "Okay" prompt **↵**.
 - Y** Confirms the date and time you entered.
 - N** Cancels the date and time you entered. Return to step 1.

```
Select drive to be used for subsequent operations:
 1 Drive 1
 2 Drive 2
 3 Drive 3
Enter choice number, then press RETURN:
```

8. Type **1** to select a drive and press RETURN. This prompt appears only if you have multiple disk drives attached to your server.

Wrap-up

With the time and date set, proceed to "Step 3. Partitioning the server disk."

Example

This example shows setting the time and date for Pacific Standard Time. The server is not connected to multiple drives.

```
Locating Time Server...Time is not set.
Time zone offset from Greenwich (-12...12): -8
Minute offset (0-59): 0
First day of Daylight Savings Time (0...366): 98
Last day of Daylight Savings Time (0...366): 305
Current time: 05/12/87 15:06:38
Do you wish to change the time (Y/N)?: Y
Please Enter the date and 24 hour time in form
MM/DD/YY HH:MM:SS
Time: 05/12/87 17:06:38
Set time to 12-May-87 17:06:38
Okay? (Y/N): Y
```

Step 3. Partitioning the server disk

You must partition a disk before the server can use it to support services.



CAUTION: Partitioning a disk erases any data on the disk. Partition the server disk only when you install the server software for the first time. If you ever need to reload software, do not partition the disk again unless your Xerox representative advises you to do so.

Step-by-step

MAIN MENU:

1 Services

Enter choice number, then press RETURN:

(Initial menu commands take a few minutes to appear for an 8090 server.)

1. Type **1** for the "Services" option at the Main Menu **↵**.

Select drive to be used for subsequent operations

1 Drive 1

2 Drive 2

Enter choice number, then press Carriage Return:

2. If you are partitioning an 8090 high-capacity drive, type the number for the drive you will be using during installation.

Otherwise, **skip to step 3.**

Choices available:

1 Install System Software

2 Install System Software for Multi Port

3 Start System

4 Start System with Remote Debugging enabled

5 Start System with Special Debugging

6 Enable Remote Debugging

7 Disable Remote Debugging

8 Partition for Services

9 Return to MAIN MENU

Enter choice number, then press Carriage Return: 1

3. Type the number for the "Partition for Services" option and press RETURN. The above choices vary for an 8000 or an 8090 server.

WARNING-PARTITIONING A SYSTEM DISK DESTROYS ALL CONTENT

Continue? (Y/N): N



CAUTION: Do not continue unless you want to erase all the information on your disk. **N** appears as the default value.

4. Type **Y** at the "Continue" prompt .

 - Y** Confirms the partitioning.
 - N** Cancels the operation.

```
SECOND CONFIRMATION REQUIRED
Continue? (Y/N): N
```

5. Type **Y** at the second "Continue" prompt .

 - Y** Reconfirms the partitioning.
 - N** Cancels the operation.

Wrap-up

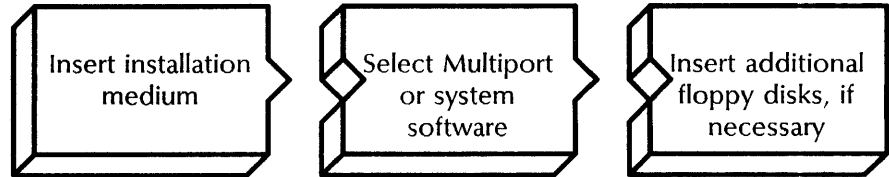
Partitioning takes from 3 to 20 minutes, depending on the size of the server disk. When the process is complete, you see the message "Disk Partitioned." Proceed to "Step 4. Installing system software."

Example

This example shows partitioning the server disk for an 8000 server.

```
MAIN MENU:
  1 Services
  Enter choice number, then press RETURN: 1
Choices available:
  1 Install System Software
  2 Install System Software for Multi Port
  3 Start System
  4 Start System with Remote Debugging enabled
  5 Start System with Special Debugging
  6 Enable Remote Debugging
  7 Disable Remote Debugging
  8 Partition for Services
  9 Return to MAIN MENU
  Enter choice number, then press RETURN: 8
WARNING - PARTITIONING A SYSTEM DISK DESTROYS ALL
CONTENT
Continue? (Y/N): Y
SECOND CONFIRMATION REQUIRED
Continue? (Y/N): Y
Disk Partitioned
```


Step 4. Installing system software



When the services installation menu appears, you can install the system software.

Prerequisites

- If you are installing system software for the Multiport option, ensure that the Multiport Option Board is in place.
- If you are installing an 8000 server, have handy the other two floppy disks with Services System Software.
- If you are installing an 8090 server, ensure that the cartridge tape labeled "XC80 Services System Software and Network Services for the 8090 Server" is already inserted in the cartridge tape drive.

Step-by-step

Choices available:

- 1 Install System Software
- 2 Install System Software for Multi Port
- 3 Start System
- 4 Start System with Remote Debugging enabled
- 5 Start System with Special Debugging
- 6 Enable Remote Debugging
- 7 Disable Remote Debugging
- 8 Partition for Services
- 9 Return to MAIN MENU

Enter choice number, then press RETURN: 1

1. If you are installing:
 - System software, type the number for the "Install System Software" option .
 - The Multiport Option Kit, type the number for the "Install System Software for Multiport" option .

The above choices vary for an 8000 or an 8090 server.

Ready to Install System Software.

Continue? (Y/N): N

2. Type **Y** at the "Continue" prompt .
 - Y** Confirms the selected option.
 - N** Cancels the option.

3. If you are installing:
 - Software from a cartridge tape, **skip to "Wrap-up."**
 - Software from floppy disks, **continue with step 4.**

Installing System Software (part 1)...

This floppy disk is labeled "Services System Software < disk type > # 1".

Load into the drive the floppy disk labeled: "Services System Software < disk type > # 2"

Is the requested floppy disk now loaded? (Y/N):

4. Remove the floppy disk from the disk drive.
5. Insert the floppy disk labeled "Services System Software # 2."
6. Press RETURN at the "Is the requested floppy disk now loaded" prompt to enter the **Y** default setting.
 - Y** Confirms that you have inserted the floppy disk.
 - N** Cancels the operation and redisplay the menu.

Installing System Software (part 2)...

Load into the drive the floppy disk labeled: "Services System Software < disk type > # 3"

Is the requested floppy disk now loaded? (Y/N):

7. Remove the floppy disk from the disk drive at the above prompt.
8. Insert the floppy disk labeled "Services System Software # 3."
9. Press RETURN at the "Is the requested floppy disk now loaded?" prompt to enter the default **Y** setting.

Wrap-up

When all the software has been installed, you see the message "System Software Installation Complete." Proceed to "Step 5. Starting the system."

Example

This example shows installing Services System Software on an 8000 server with a fixed disk. The software is installed using floppy disks.

Choices available:

- 1 Install System Software
- 2 Install System Software for Multi Port
- 3 Start System
- 4 Start System with Remote Debugging enabled
- 5 Start System with Special Debugging
- 6 Enable Remote Debugging
- 7 Disable Remote Debugging
- 8 Partition for Services
- 9 Return to MAIN MENU

Enter choice number, then press RETURN: **1**

Ready to Install System Software

Continue? (Y/N): **Y**

Installing System Software (part 1)...

This floppy disk is labeled "Services System Software # 1".

Load into the drive the floppy disk labeled: "Services System Software # 2"

Is the requested floppy disk now loaded? (Y/N): **Y**

Installing System Software (part 2)...

Load into the drive the floppy disk labeled: "Services System Software # 3"

Is the requested floppy disk now loaded? (Y/N): **Y**

Installing System Software (part 3)...

System Software Installation Complete.

This example shows installing Services System Software on an 8090 server from cartridge tape.

Choices available:

- 1 Install System Software
- 2 Start System
- 3 Start System with Remote Debugging enabled
- 4 Enable Remote Debugging
- 5 Disable Remote Debugging
- 6 Start System with Special Debugging
- 7 Partition for Services
- 8 Return to MAIN MENU

Enter choice number, then press RETURN: **1**

Ready to Install System Software

Continue? (Y/N): **Y**

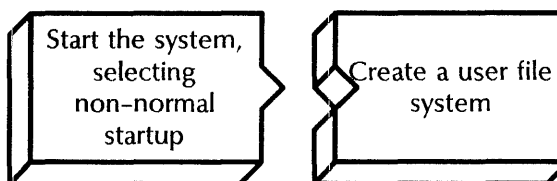
Installing System Software (part 1)...

Installing System Software (part 2)...

Installing System Software (part 3)...

System Software Installation Complete.

Step 5. Starting the system



After you install the system software, you can start the system for the first time. The services installation menu appears.

Step-by-step

Choices available:

- 1 Install System Software
- 2 Install System Software for Multi Port
- 3 Start System
- 4 Start System with Remote Debugging enabled
- 5 Start System with Special Debugging
- 6 Enable Remote Debugging
- 7 Disable Remote Debugging
- 8 Partition for Services
- 9 Return to MAIN MENU

Enter choice number, then press RETURN: 1

1. Type the number for the "Start System" option and press RETURN. The above choices vary for an 8000 or an 8090 server.

NOTE

If you are performing a Genesis installation of services release version 11.0, the server stops when the maintenance panel displays 0322 if there is no network connection found. Press the Alternate Boot (ALT B) button to continue.

```
THIS PROGRAM IS THE BOOT DIAGNOSTICS VERSION
< number >
THIS MESSAGE CONFIRMS THAT THE SYSTEM
ADMINISTRATOR DISPLAY IS OPERATIONAL.
Series 8000 Network Services Executive. Version
< number > < date > < time >
Copyright (C) 1981, 1982, 1983, 1984, 1985, 1986, 1987,
1988 by Xerox Corporation
All Rights Reserved. Restart Reason: Backstop initialized
Normal startup? (Y/N):
```

2. Type **N** at the "Normal startup" prompt \Leftarrow .
 - Y** Normally starts and runs the server.
 - N** Lets you perform specific tasks before the server is fully operational.



CAUTION: Be sure you type **N** at this prompt. If you type **Y**, and you are installing the first server on the net, you will not be able to install services later without rebooting and answering **N** to the "Normal startup" prompt.

```
Enter interrupt point
1  Interrupt before opening primary volume
2  Interrupt before processing profile
3  Interrupt before running services
Enter one or more choices:
```

3. Type **3** for the "Interrupt before running services" option .
- If you are starting the system for an 8090 server, **continue with step 4 of this procedure.**
 - If you are starting the system for an 8000 server, **skip to "Step 6. Setting software options."**

```
Opening volume...File System not found.
Choose desired action.
1  Create a new File System
2  Run Scavenger
Enter choice number:
```

4. Type **1** for the "Create a new User File System" option .

```
Ready to create a new File System.
Old File System content will be lost.
Confirm (Y/N):
```

5. Press RETURN at the "Confirm" prompt to enter the **Y** default .
- Y** Creates a new User File System.
 - N** Return to step 4 of this procedure.

```
Creating File System...
```

NOTE

If you are creating a new user file system on an 8090 server, the process may take several minutes.

Wrap-up

Proceed to "Step 6. Setting software options."

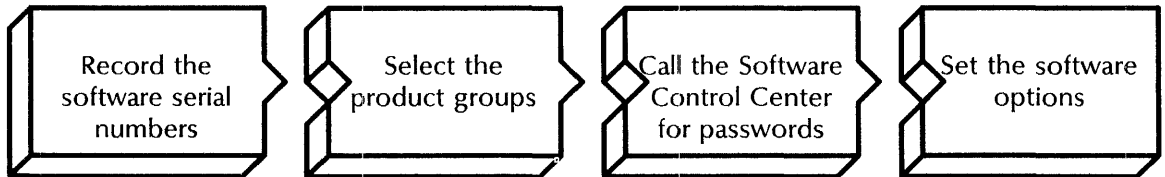
Example

This example shows starting the system, using a non-normal startup and interrupting the startup before running services on an 8090 server.

```

Choices available:
  1  Install System Software
  2  Install System Software for Multiport Option
  3  Start System
  4  Start System with Remote Debugging enabled
  5  Start System with Special Debugging
  6  Enable Remote Debugging
  7  Disable Remote Debugging
  8  Partition for Services
  9  Return to MAIN MENU
Enter choice number, then press RETURN: 3
THIS PROGRAM IS THE BOOT DIAGNOSTICS VERSION 11.0
THIS MESSAGE CONFIRMS THAT THE SYSTEM ADMINISTRATOR DISPLAY IS
OPERATIONAL.
Series 8000 Network Services Executive. Version 11.0
Copyright (C) 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988 by Xerox
Corporation
All Rights Reserved. Restart Reason: Backstop initialized
Normal startup? (Y/N): N
Enter interrupt point
  1  Interrupt before opening primary volume
  2  Interrupt before processing profile
  3  Interrupt before running services
Enter one or more choices: 3
Opening volume...File System not found.
Choose desired action.
  1  Create a new File System
  2  Run Scavenger
Enter choice number: 1
Ready to create a new File System.
Old File System content will be lost.
Confirm (Y/N): Y
Creating File System...
    
```

Step 6. Setting software options



When you start the server for the first time, it detects that no software options have been set. Use this step to enter the necessary passwords to set the software options.

Prerequisites

- See the Software Options Worksheet in your *Activities Guide* for the product groups you want to configure and the services you want to install on the server.

- Know the telephone number of the Software Control Center.

Step-by-step

```

Standard services not enabled
Standard Services Software option has not been set
There are no software options enabled on this machine

The Software Serial Numbers for this machine are:

Services Group I: <serial number>
Services Group II: <serial number>
Printer Fonts: <serial number>

Software locked on <date> <time>
The processor number is <number>
The software to be configured on this machine is provided
under a prearranged agreement with Xerox. Attempts to
configure any software not authorized by Xerox will be in
violation of the agreement.

Confirm? (Y/N):

```

1. Write down the software serial numbers displayed.
2. Type **Y** at the "Confirm" prompt .
 - Y** Confirms the serial numbers and displays the product groups.
 - N** Displays a new set of serial numbers.

```

Product groups to be configured
1 Services Group I
2 Services Group II
3 Printer Fonts
Enter one or more choices:

```

3. Type the numbers for the groups containing the options you want to enable and press RETURN. For example, type **1-3** for all groups.
4. Call the Software Control Center to obtain a password for each product group you are configuring. Report the options you want to install, their product group, and the software serial numbers you recorded in step 1.
5. Record the password(s) given to you.

```

<number> passwords are required to configure options in
those product groups.
Enter password for <product group>:

```

6. Return to the server, and type the appropriate passwords at each prompt .

```
< enabled option >  
< enabled option >  
Ok to lock this Software now? (Y/N):
```

7. Type **Y** or **N** to lock the software **↵**.
 - Y** Enables the options listed. Skip to "Wrap-up."
 - N** Does not enable the options. Repeat steps 4 through 7.

Wrap-up

When the software options have been set, you see the message "Configuration completed." Proceed to "Step 7. Entering your network number and server name."

Example

This example shows setting the software options. The Standard Services Software, File Service, and Mail Service from Services Group I are enabled.

Standard Services Software not enabled
Standard Services Software option has not been set
There are no software options enabled on this machine

The Software Serial Numbers for this machine are:

Services Group I: X 245Z CQJP 95VB
Services Group II: Q YXDF ZQKE JZSJ
Printer Fonts: Q S45B J5QE SV2H

Software locked on 26-Nov-86 23:51:19
The processor number is 2-852-162-714
The software to be configured on this machine is provided under a prearranged agreement with Xerox. Attempts to configure any software not authorized by Xerox will be in violation of the agreement.

Confirm? (Y/N): **Y**

Product groups to be configured

- 1 Services Group I
- 2 Services Group II
- 3 Printer Fonts

Enter one or more choices: **1**

One password is required to configure options in those product groups.

Enter password for Services Group I: **X 4XXX XX44 4XXX**

Standard Services Software

File Service

Mail Service

Okay to lock this Software now? (Y/N): **Y**

Locking...

The Software Serial Numbers for this machine are:

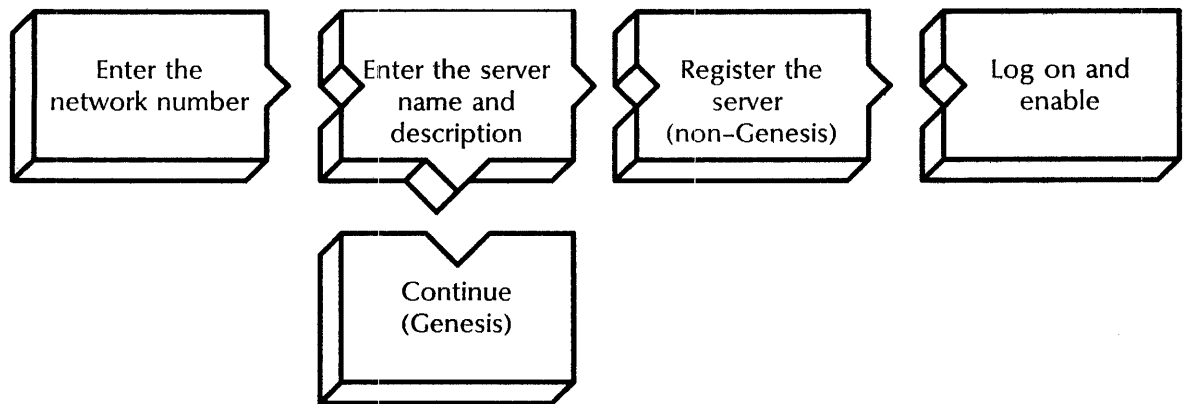
Service Group I: P M7GE 9SWR 65TF
Service Group II: 6 MRYB 8JJE
Printer Fonts: Y 2LHT JY50 YFAF

Software locked on 12-July-87 15:03:33

The processor number is 2-852-162-714

Configuration completed.

Step 7. Entering your network number and server name



After you set the software options, you enter the network number and server name. You need to enter the network number only if you are installing the first server on your network.

Prerequisites

- Know your network number.
- See the Services Installation Worksheet in your *Activities Guide* for the server name and description.

Step-by-step

Network number not available.
Please enter network number
Network number:

1. Type the network number \Leftarrow .

If your server can learn the network number from another server on your network, you see a message with the network number. **Skip to step 2 of this procedure.**



CAUTION: Step 2 of this procedure is critical—it establishes future protection for the server. You must be sure that the name you enter is exactly as you want it to appear. Note the case and spacing used.

For a Genesis installation, the organization part of the fully qualified name must match exactly the format you specified when you obtained your organization password.

The server name determines which domain is used to verify your administrative access. The domain must exist in the network, or you must be prepared to introduce the domain later in the installation.

Server name not found or invalid.
Please enter fully qualified server name. Caution: the domain and organization specified will establish the system administrator access control for this server.

Server Name:

2. Type the fully qualified server name at the "Server Name" prompt .

Server Description:

3. Type the description for the server at the "Server Description" prompt .

Confirm (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
 - Y** The server tries to register itself when it reaches the needed domain. **Continue with step 5 of this procedure.**

NOTE

If you see a message about the Clearinghouse, the server cannot access the specified domain. **Skip to step 7 of this procedure.**

N Returns you to step 2 of this procedure.

Logon required to register server in the Clearinghouse Service
Please Logon
User Name:

5. Type the name of the System Administrator at the "User Name" prompt .

Password:

6. Type your password and press RETURN. Skip to "Wrap-up."

Cannot find Clearinghouse serving this domain
Continue? (Y/N):

7. Type **Y** or **N** at the "Continue" prompt .
 - Y** For a Genesis installation, the server enters Genesis mode.
 - N** For a non-Genesis installation. Make the Clearinghouse available, restart the server, select a non-normal startup, and return to step 2 of this procedure.

Wrap-up

If you were able to log on, you see the following message and prompt:

```
Validating server registration...Server Registered.  
>
```

If you were unable to log on, the Clearinghouse domain does not yet exist. You see this message:

```
Cannot find Clearinghouse serving this domain  
Server has entered Genesis mode  
>
```

In both cases, continue with "Step 8. Installing the services."

Example

The following example shows adding a server on a network with other servers. The server is able to access the Clearinghouse Service to authenticate the user.

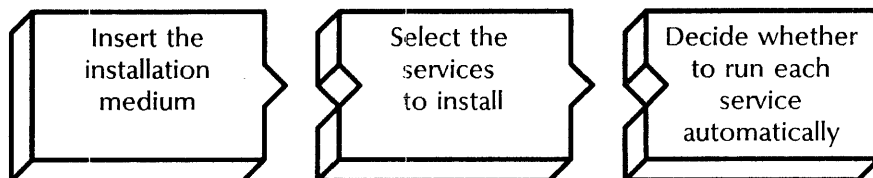
```
Server is attached to network number 1-510.  
Server name not found or invalid.  
Please enter fully qualified server name. Caution: the domain and organization  
specified will establish the system administrator access control for this server.  
  
Server Name: Foxdale:OurDomain:OurOrg  
Server Description: FS-Foxdale, 2nd Floor, East Wing  
Confirm (Y/N): Y  
Logon required to register server in the Clearinghouse Service  
Please Logon  
User Name: Matthew Bennett:Our Domain:Our Org  
Password: *****  
Validating server registration...Server Registered.  
>
```

The following example shows entering the network number for and identifying the first server on a new network. The server cannot access the Clearinghouse Service to authenticate the user. For this Genesis installation, the server enters Genesis mode.

```
Network number not available.
Please enter network number
  Network number: 1-510
Server is attached to network number 1-510.
  Server name not found or invalid.
Please enter fully qualified server name. Caution: the domain and organization
specified will establish the system administrator access control for this server.

  Server Name: Foxdale:OurDomain:OurOrg
  Server Description: FS-Foxdale, 2nd Floor, East Wing
Confirm (Y/N): Y
Cannot find Clearinghouse serving this domain
Continue? (Y/N): Y
Cannot find Clearinghouse serving this domain
Server has entered Genesis mode
>
```

Step 8. Installing the services



You are now logged on and enabled, or your server is in Genesis mode. You are ready to install services on the server.

You must perform this procedure for each service you install. For example, to install both the File Service and the Mail Service, you perform the procedure twice.



CAUTION: Do not use this procedure to add a service to an existing server. Use instead the procedure "Installing additional services" in the Services System Software chapter of the *Services Maintenance Guide*.

Prerequisite

Have handy the floppy disks or cartridge tape containing the services you want to install.

Step-by-step

1. Insert into the drive the medium containing the service you want to install.
 - For an 8000 server, insert the floppy disk for the service.
 - For an 8090 server, skip to step 2 of this procedure.
2. Type **Install Service** and press RETURN. If you are installing on an 8090 server, the next prompt appears in 10 minutes.

```

Installation choices
 1 <service name >
 2 <service name >
 3 <service name >
Enter one or more choices:
  
```

3. Type the numbers for the services you want to install (for example, **1-2** or **1,3**) .

```

Installing <service name > ...done
<service name >: Activate? (Y/N):
  
```

4. Type **Y** or **N** at the "Activate" prompt .
 - Y** Adds the service to the active services list. The service will be run automatically when the server is restarted.
 - N** Does not add the service to the active services list. The service is not run when the server is restarted.

```
<service name> activated.
```

5. To install each additional service:

- For an 8000 server, remove the floppy disk from the drive, then repeat steps 1 through 4 of this procedure.
- For an 8090 server, repeat steps 2 through 4 of this procedure.

NOTE

You install the Multiport Option Kit as you do a service. Numerous server displays list the Multiport option as if it were a service, until you next boot the server. (Boot the server only when instructed to do so.)

NOTE

Services take different times to install, depending on the medium you are using and the service. The Clearinghouse Service takes 2 minutes to install from floppy disk, 6 minutes from cartridge tape. The File Service takes 1 ½ minutes from floppy disk, 57 seconds from cartridge tape. The Mail Service takes 1 minute 44 seconds from floppy tape, 7 minutes and 45 seconds from cartridge tape.

These differences are due to sequential searching for files on the cartridge tape. Floppy disk files are contained on individual disks.

Wrap-up

As each installation is successful, you see the message "Done" followed by the prompt to activate the service. After you install all the services you want on the server:

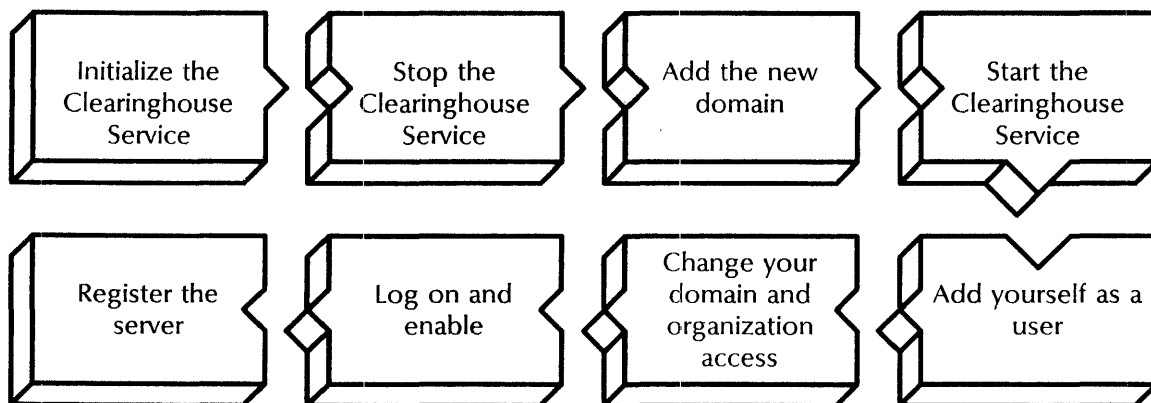
- For a non-Genesis installation, proceed to "Step 16. Completing the installation."
- For a Genesis Clearinghouse Service installation, proceed to "Step 9. Running the Clearinghouse Service."
- For a Genesis Internetwork Routing Service installation, proceed to "Step 10. Running the Internetwork Routing Service."

Example

This screen shows installing the first Clearinghouse Service on your server (Genesis installation).

```
> Install Service
  Installation choices:
    1 Clearinghouse Service
    2 External Communication Service
    3 Server Monitor Service
Enter one or more choices: 1
Installing Clearinghouse Service...done.
  Clearinghouse Service: Activate? (Y/N): Y
Clearinghouse Service activated.
>
```

Step 9. Running the Clearinghouse Service



Use this procedure only if you are performing a Genesis Clearinghouse Service installation.

Prerequisites

- Ensure that the 8000 or 8090 server is the first server on the network.
- See the Services Installation Worksheet in your *Activities Guide* for the following information:
 - Clearinghouse Service name
 - Clearinghouse Service domain and organization
 - User name, description, home File Service, and alias
 - User access

Step-by-step

1. Type **Run Service** .

```

Select choices:
1  Clearinghouse Service
2  <service name >
3  <service name >
4  <service name >
Enter one or more choices:
  
```

2. Type the number for the Clearinghouse Service .
- You may have a short wait for the next prompt.

```

CHS: Normal startup? (Y/N):
  
```

3. Type **Y** at the "CHS: Normal startup" prompt .
- Y** Runs the Clearinghouse Service and initializes the Clearinghouse database.

- N** Lets you perform special tasks before running the Clearinghouse Service.

```
Running Clearinghouse Service.
Opening Clearinghouse Service database.
This Clearinghouse Service has not been named. Please
enter its name.
Name:
```

4. Type the first part of the Clearinghouse Service name .

CAUTION: DO NOT type your domain and organization names.



```
Is this the first Clearinghouse server on the internet? (Y/N):
```

5. Type **Y** at the "Is this the first Clearinghouse server on the internet" prompt .

Y Opens the Clearinghouse database. Type **Y** if you are installing the first Clearinghouse on the network.

N Causes the server to try to connect to another Clearinghouse on the network. If you type **N** for a Genesis installation (first Clearinghouse on the network) the operation will fail.

Opening the Clearinghouse database may take a few minutes.

```
< Clearinghouse name > is not registered in the
Clearinghouse. Registering...
Done. Clearinghouse database open.
Clearinghouse Service functions are now available to the
network.
Clearinghouse Service run.
>
```

6. Type **Stop Service** .

```
Select choices:
1 Clearinghouse Service
Enter one or more choices:
```

7. Type the number for the Clearinghouse Service .

```
CHS: Stop immediately? (Y/N):
```

8. Type **Y** at the "Stop immediately" prompt .
- Y** Stops the service immediately.
- N** Stops the service after any activity has been terminated.

```
Stopping the Clearinghouse Service.  
Clearinghouse Service functions are now unavailable to the  
network.  
>
```

9. Type **Clearinghouse Service** to enter that context \leftarrow .
10. Type **Add Domain** \leftarrow .

```
Domain Name:
```

11. Type your domain and organization names using the format `domain:organization` \leftarrow .

Use the same domain name you used when you named your server. Enter the domain and organization names carefully. Make sure the use of uppercase, lowercase, and spacing is correct.

```
Organization <organization name> does not exist.  
Creating new Organization <name> on this CHS. Confirm?  
(Y/N):
```

12. Type **Y** to create a new organization \leftarrow .
 - Y** Creates a new organization.
 - N** Return to step 11 of this procedure.

```
Enter password for creating this organization:
```

13. Type the password for creating the organization \leftarrow .

Enter the password carefully. Make sure the use of uppercase, lowercase, and spacing is correct. Asterisks appear as you type the password.

```
Domain <domain:organization> does not exist.  
Creating new Domain <domain:organization> on this CHS.  
Confirm? (Y/N):
```

14. Type **Y** to create a new domain \leftarrow .
 - Y** Creates a new domain.
 - N** Return to step 11 of this procedure.

```
Done.  
CHS>
```

15. Type **Start Service** \leftarrow .

Select choices:
1 Clearinghouse Service
Enter one or more choices:

16. Type the number for the Clearinghouse Service .

Starting Clearinghouse Service.
Clearinghouse functions are now available to the network.

17. Type **Add User** .

First Name (and Middle Initial, if desired):

18. Type your first name .

Last Name:

19. Type your last name .

Password:

20. Type your password .

Description:

21. Type a description of your network responsibilities .

"Home" File Service:

22. Type the name of your home File Service .

Alias:

23. Type an alias for yourself .

Alias:

24. Type another alias and press RETURN. To cancel the prompt, press RETURN.

Warning: No File Service named <name:domain:
organization > is registered
Confirm this User information? (Y/N):

25. Type **Y** to confirm the information you just entered .

Y Adds the user information.

N Return to step 18 of this procedure.

Done. <user name:domain:organization> (User) added.
Add another user? (Y/N):

26. Type **N** to the "Add another user?" prompt .

Y Return to step 18 of this procedure.

N Continue with step 27 of this procedure.

27. Type **Change Domain Access** .

Domain Name:

28. Type the domain name .

Name:

29. Type your user name .

Admin Access? (Y/N):

30. Type **Y** to give yourself administrative access to this domain .

Y Grants administrative access.

N Does not grant administrative access.

Done. <user name:domain:organization> granted
Admin access to <domain:organization>.
CHS>

31. Type **Change Organization Access** .

Organization Name:

32. Type the organization name .

Name:

33. Type your user name .

Admin Access? (Y/N):

34. Type **Y** to give yourself administrative access to this organization .

Y Grants administrative access.

N Does not grant administrative access.

```
Done. <user name:domain:organization> granted
Admin Access to <organization>.
CHS>
```

35. Type **Logon** \leftarrow .

```
User Name:
```

36. Type your user name \leftarrow .

```
Password:
```

37. Type your password \leftarrow .

```
CHS>
```

38. Type **Enable** \leftarrow .

```
CHS!
```

39. Type **Show Logged On User** to verify your domain access \leftarrow .

```
User: <name:domain:organization>
Status: <status>
```

40. Type **Register Server** \leftarrow .

```
Server Name: <name:domain:organization>
Server Description: <description>
Validating server registration...Server Registered.
CHS!
```

Wrap-up

When you see the message, "Server Registered," you have successfully completed this procedure. Proceed to "Step 16. Completing the installation."

Example

This example shows running and initializing the Clearinghouse Service on the first server in a single Ethernet configuration. The Clearinghouse Service, External Communication Service, Server Monitor Service, and Internetwork Routing Service are installed on the server. The Clearinghouse is named OurCHS.

> Run Service

Select choices:

- 1 Clearinghouse Service
- 2 External Communication Service
- 3 Server Monitor Service
- 4 Internetwork Routing Service

Enter one or more choices: **1**CHS: Normal Startup? (Y/N): **Y**

Running Clearinghouse Service.

Opening Clearinghouse Service database.

This Clearinghouse Service has not been named. Please enter its name.

Name: **OurCHS**Is this the first Clearinghouse server on the internet? (Y/N): **Y**

OurCHS is not registered in the Clearinghouse. Registering...

Done. Clearinghouse database open.

Clearinghouse Service functions are now available to network.

Clearinghouse Service run.

> Stop Service

Select choices:

- 1 Clearinghouse Service

Enter one or more choices: **1**CHS: Stop immediately? (Y/N): **Y**

Stopping Clearinghouse Service.

Clearinghouse Service functions are now unavailable to the network.

> Clearinghouse Service**CHS>Add Domain**Domain Name: **Our Domain:OurOrg**

Organization OurOrg does not exist.

Creating new Organization OurOrg on this CHS. Confirm? (Y/N): **Y**

Enter password for creating this organization: *****

Domain OurDomain:OurOrg does not exist.

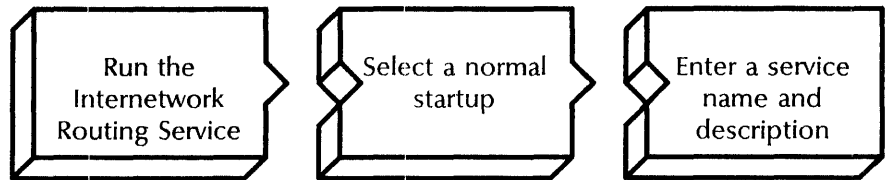
Creating new Domain OurDomain:OurOrg on this CHS. Confirm? (Y/N): **Y**

Done

Screen continued

```
CHS> Start Service
  1 Clearinghouse Service
  2 External Communication Service
  3 Server Monitor Service
  4 Internetwork Routing Service
Enter one or more choices: 1
Starting Clearinghouse Service.
Clearinghouse functions are now available to the network.
CHS> Add User
  First Name (and Middle Initial, if desired): Matthew W
  Last Name: Bennett
  Password: *****
  Description: System Administrator for OurDomain
  "Home" File Service: Foxdale
  Alias: MWB
  Alias:
  Warning: No File Service named Foxdale:OurDomain:OurOrg is registered.
  Confirm this User information? (Y/N): Y
Done. Matthew W Bennett:OurDomain:OurOrg (User) added.
  Add another user? (Y/N): N
CHS> Change Domain Access
  Domain Name: OurDomain
  Name: Matthew Bennett
  Admin Access? (Y/N): Y
Done. Matthew W Bennett:OurDomain:OurOrg granted
Admin access to OurDomain:OurOrg.
CHS> Change Organization Access
  Organization Name: OurOrg
  Name: Matthew W Bennett
  Admin Access? (Y/N): Y
Done. Matthew W Bennett:OurDomain:OurOrg granted
Admin Access to OurOrg.
CHS> Logon
  User Name: Matthew Bennett:Our Domain:Our Org
  Password: ***
CHS> Enable
CHS!Show Logged On User
User: Matthew W Bennett:Our Domain:Our Org
Status: System Administrator, Enabled
CHS!Register Server
Server Name: Foxdale:OurDomain:OurOrg
Server Description: FS-Foxdale, 2nd Floor, East Wing
Validating server registration...Server Registered.
CHS!
```

Step 10. Running the Internetwork Routing Service



Use this procedure if you are establishing a link to a remote site during a Genesis Internetwork Routing Service installation.

Prerequisites

- Install the Internetwork Routing Service.
- Coordinate access with the System Administrator at the remote site.
- See the Internetwork Routing Service Worksheet in your *Activities Guide* for the service name and description.

Step-by-step

1. Type **Run Service** .

```

Select choices:
1  <service name>
2  Internetwork Routing Service
Enter one or more choices:
  
```

2. Type the number for the Internetwork Routing Service .

```

IRS: Normal startup? (Y/N):
  
```

3. Type **Y** at the "Normal startup" prompt .

The Internetwork Routing Service runs through first-time initialization.

```

Running Internetwork Routing Service.
IRS: Service name and description unknown.
Enter service name:
  
```

4. Type the name of the Internetwork Routing Service .

```

Enter service description:
  
```

5. Type a description for the Internetwork Routing Service .

```

Confirm? (Y/N):
  
```


6. Type **Y** at the "Confirm" prompt \Leftarrow .
- Y** Confirms the description.
 - N** Return to step 5 of this procedure.

```
IRS: Validating Clearinghouse entry for < IRS name >
IRS: A new Clearinghouse entry was created.
IRS: Done
IRS: No X.25 network has been defined.
IRS: No circuits have been defined.
IRS: Internetwork Routing Service is started.
Internetwork Routing Service run.
```

Wrap-up

The Internetwork Service is running when you see the "Internetwork Routing Service run" prompt. If you want to

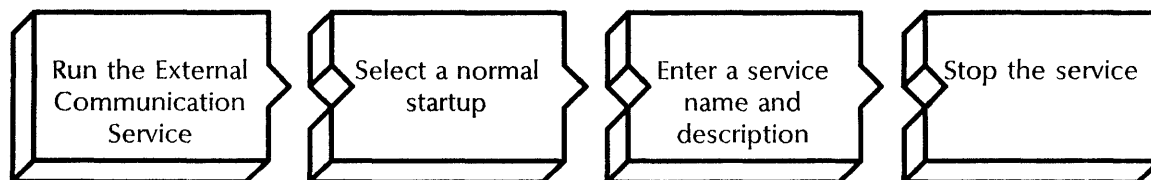
- Add a Communication Interface Unit, proceed to "Step 11. Running the External Communication Service."
- Add an X.25 network, proceed to "Step 13. Adding an X.25 network."
- Start the Internetwork Routing Service and register the server, proceed to "Step 15. Starting the Internetwork Routing Service."

Example

This example shows running an Internetwork Routing Service. The service is named OurIRS.

```
!Run Service
Select choices:
1 Clearinghouse Service
2 External Communication Service
3 Internetwork Routing Service
Enter one or more choices: 3
IRS: Normal startup? (Y/N): Y
Running Internetwork Routing Service.
IRS: Service name and description unknown.
Enter service name: OurIRS
Enter service description: IRS link to San Francisco
office
Confirm? (Y/N): Y
IRS: Validating Clearinghouse entry for
OurIRS:OurDomain:OurOrg
IRS: A new Clearinghouse entry was created.
IRS: Done
IRS: No X.25 network has been defined.
IRS: No circuits have been defined.
IRS: Internetwork Routing Service is started.
Internetwork Routing Service run.
!
```

Step 11. Running the External Communication Service



To configure a Communication Interface Unit, you must first run the External Communication Service.

Prerequisites

- Install the External Communication Service.
- See the External Communication Service Worksheet in your *Activities Guide* for the service name and description.

Step-by-step

1. Type **Run Service**

Select choices:

- 1 Clearinghouse Service
- 2 External Communication Service
- 3 Internetwork Routing Service

Enter one or more choices:

2. Type the number for the External Communication Service

ECS: Normal startup? (Y/N):

3. Type **Y** at the "Normal startup" prompt .

The External Communication Service runs through first-time initialization.

Service name and description unknown.

Operator needs to perform current operation.

No change to server profile or Clearinghouse

Couldn't find ECS name. ECS will not be started.

External Communication Service run.

4. Type **Start Service** .

Running External Communication Service.
 Attempting to determine the name of this External
 Communication Service.
 Service name and description unknown.
 Enter service name:

5. Type the name of the External Communication Service .

Enter service description:

6. Type a description for the External Communication Service .

Confirm? (Y/N):

7. Type **Y** at the "Confirm" prompt .
- Y** Confirms the information.
N Return to step 6 of this procedure.

Validating Clearinghouse entry for <ECS name >
 .
*(The ECS reports that no ports have been assigned and
 verifies Clearinghouse entry information.)*
 .
 External Communication Service run.

8. Type **Stop Service** .

Select choices:
 1 Clearinghouse Service
 2 External Communication Service
 3 Internetwork Routing Service
 Enter one or more choices:

9. Type the number for the External Communication Service .

ECS: External Communication Service is stopped.
 !

Wrap-up

When you see the "!" prompt, you have successfully initialized and stopped the External Communication Service. Proceed to "Step 12. Adding a Communication Interface Unit."

Example

This example shows initializing the External Communication Service named OurECS. The service is then stopped.

!Run Service

Select choices:

- 1 Clearinghouse Service
- 2 External Communication Service
- 3 Internetwork Routing Service

Enter one or more choices: **2**

ECS: Normal Startup? (Y/N): **Y**

Running External Communication Service.

Attempting to determine the name of this External Communication Service.

Service name and description unknown.

Enter service name: **OurECS**

Enter service description: **ECS to add CIU ports for IRS**

Confirm? (Y/N): **Y**

Validating Clearinghouse entry for

OurECS:OurDomain:OurOrg

A new Clearinghouse entry was created.

Done

ECS: Warning - No RS232C port assigned to this External Communication Service.

ECS: Warning - No active RS232C port assigned to this External Communication Service.

ECS: Data pertaining to this External Communication Service has changed. Verify Clearinghouse Entries command will be run now.

Attempting to determine the name of this External Communication Service.

Validating Clearinghouse entry for:

OurECS:OurDomain:OurOrg

Done

Clearinghouse entry verification complete.

ECS: External Communication Service is started.

External Communication Service run.

!Stop Service

Select choices:

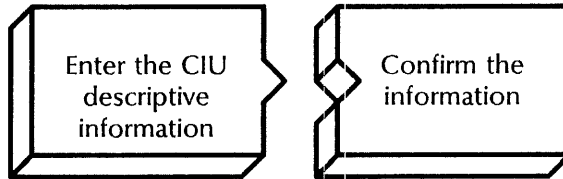
- 1 Clearinghouse Service
- 2 External Communication Service
- 3 Internetwork Routing Service

Enter one or more choices: **2**

ECS: External Communication Service is stopped.

!

Step 12. Adding a Communication Interface Unit



Use this procedure to add a Communication Interface Unit.

Prerequisites

See the External Communication Service Worksheet in your *Activities Guide* for the following information:

- The CIU name
- Whether the CIU is a one-board or two-board unit
- The CIU processor number

Step-by-step

1. Type **External Communication Service** to enter that context **↵**.

ECS!

2. Type **Add Communication Interface Unit** **↵**.

Name:

3. Type the name of the Communication Interface Unit **↵**.

Description:

4. Type a description for the Communication Interface Unit **↵**.

Type of Communication Interface Unit

1 One Board

2 Two Board

Enter choice number:

5. Type the number for the type of Communication Interface Unit you have **↵**.

Processor number of Communication Interface Unit:

6. Type the processor number for the Communication Interface Unit **↵**.

Confirm this Communication Interface Unit information (Y/N):

7. Type **Y** to confirm the unit information .
- Y** Confirms the Communication Interface Unit information.
- N** Return to step 3 of this procedure.

Done. Communication Interface Unit <name> has been added.

Add another Communication Interface Unit (Y/N):

8. Type **N** at the "Add another Communication Interface Unit" prompt .
- Y** Return to step 3 of this procedure so you can add another Communication Interface Unit.
- N** Ends the process.

ECS!

Wrap-up

When you see the "ECS!" prompt, you have successfully added a Communication Interface Unit. Proceed to "Step 14. Adding an Internetwork Routing Service circuit."

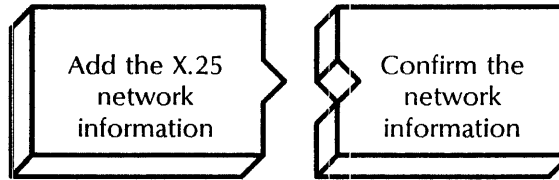
Example

This example shows adding a one-board Communication Interface Unit named Jungle.

```

!External Communication Service
ECS!Add Communication Interface Unit
  Name: Jungle
  Description: Supports IRS link
  Type of Communication Interface Unit
  1  One Board
  2  Two Board
  Enter choice number: 1
  Processor number of Communication Interface Unit:
949-000-000
  Confirm this Communication Interface Unit information
  (Y/N):Y
  Done. Communication Interface Unit Jungle has been added.
  Add another Communication Interface Unit (Y/N): N
  ECS!
  
```

Step 13. Adding an X.25 network



Use this procedure to add an X.25 network. You define first the X.25 network, then the circuit that will use it.

Prerequisite

See the *Internetwork Routing Service Worksheet* in your *Activities Guide* for the following information:

- The local port number
- Whether the line is autostarted
- The line speed
- The local address
- The retransmission timeout
- The maximum number of retransmissions
- The maximum number of outstanding frames
- The type of network
- The protocol ID number
 - The switched virtual circuit range stop and start numbers
 - The X.25 network description

Step-by-step

1. Type **Internetwork Routing Service** to enter that context \leftarrow .

IRS!

2. Type **Add X25 Network** \leftarrow .

Enter local port number (0..63)

3. Type the local port number \leftarrow .

Should this line be autostarted (Y/N):

4. Type **Y** or **N** to autostart the line \leftarrow .
 - Y** Starts the line automatically each time you restart the server.
 - N** Requires that the line be restarted manually.

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps

Enter choice number:

5. Type the number for the line speed .

Local address:

6. Type the local address .

Retransmission timeout (3...20)

7. Type the number for the retransmission timeout .

Maximum number of retransmissions (1...100):

8. Type the maximum number of retransmissions .

Maximum number of outstanding frames (1...7):

9. Type the maximum number of outstanding frames .

Network types

- 1 Tymnet, Uninet
- 2 Telenet
- 3 DDX
- 4 International DDX
- 5 DDX 80
- 6 Passive DTE

Enter choice number:

10. Type the number for the network type .

Protocol ID:

11. Type the protocol ID number (hexadecimal) .

Switch virtual circuit range
start (1..4095):

12. Type the start number for the switched virtual circuit range .

stop (1..4095):

13. Type the stop number for the switched virtual circuit range .

X25 network description:

14. Type a description for the X.25 network .

Confirm X25 network information (Y/N):

15. Type **Y** to confirm the information .

Y Return to step 3 of this procedure so you can add another X.25 network.

N Ends the process.

Wrap-up

When you see the message "Done," you have successfully defined the X.25 network. Proceed to "Step 14. Adding an Internetwork Routing Service circuit."

Example

This example shows defining an X.25 network. The Telenet line is not autostarted and has a line speed of 9600 bps.

ECS!Internetwork Routing Service**IRS!Add X.25 Network**Enter local port number (0..63) **0**Should this line be autostarted? (Y/N): **N**

Select line speed

1 1200 bps

2 2400 bps

3 3600 bps

4 4800 bps

5 7200 bps

6 9600 bps

Enter choice number: **6**Local address: **4150005**Retransmission timeout (3..20): **6**Maximum number of retransmissions (1..100): **30**Maximum number of outstanding frames (1..7): **7**

Network types

1 Tymnet, Uninet

2 Telenet

3 DDX

4 International DDX

5 DDX 80

6 Passive DTE

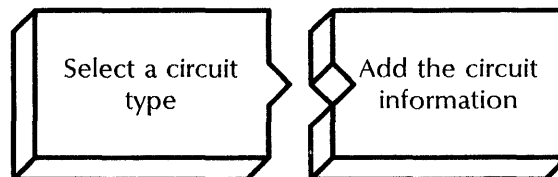
Enter choice number: **2**Protocol ID: **FFFFFFF**

Switch virtual circuit range

start (1..4095): **2**stop (1..4095): **4**X25 network description: **My X.25 network**Confirm X25 network information (Y/N): **Y**

Done.

IRS!

Step 14. Adding an Internetwork Routing Service circuit

Use this procedure to add and configure a circuit for the Internetwork Routing Service. You can configure four types of circuits: X.25 switched virtual circuit (SVC), auto-dialed, manually dialed, and dedicated.

Prerequisites

- If you are using an X.25 circuit, define the X.25 network.

- If you plan to run the Internetwork Routing Service on a manually dialed or dedicated circuit using other than a local port, add a Communication Interface Unit.
- See the Internetwork Routing Service Worksheet in your *Activities Guide* for the following information:

If you are configuring an X.25 SVC circuit:

- The X.25 network address of the remote host
- Whether the circuit is autostarted
- The circuit description

If you are configuring an auto-dialed circuit:

- The local port number
- The line speed
- The equipment duplexity
- The circuit description
- The phone number

If you are configuring a manually dialed or dedicated circuit:

- Whether the circuit is autostarted
- The line speed
- The equipment duplexity
- The circuit description
- If a part of a clusternet, the clusternet number

Step-by-step for all circuit types

1. Type **Internetwork Routing Service** and press RETURN.
If you are already in that context, **skip to step 2**.
2. Type **Add Circuit** .

```
Circuit types
1 X.25 SVC
2 Auto-dialed
3 Manually dialed
4 Dedicated
Enter choice number:
```

3. Type the number for the circuit type you want .
4. Proceed to the section for the circuit type you are adding.

Step-by-step for an X.25 SVC circuit

```
X25 network address of remote host:
```

5. Type the network address of the remote host .

```
Autostart? (Y/N):
```

6. Type **Y** or **N** at the "Autostart" prompt .
- Y** Starts the circuit automatically when the Internetwork Routing Service is run.
- N** Does not start the circuit automatically when the Internetwork Routing Service is run.

Circuit description:

7. Type the circuit description .

Confirm circuit information (Y/N):

8. Type **Y** or **N** at the "Confirm circuit information" prompt .
- Y** Confirms the information and adds the circuit.
- N** Return to step 5 of the X.25 SVC procedure.

Done.
IRS!

Wrap-up

When you see the message "Done," you have successfully added the circuit. Proceed to "Step 15. Starting the Internetwork Routing Service."

Example

This example shows adding an X.25 SVC circuit.

```

IRS!Add Circuit
  Circuit types
  1 X.25 SVC
  2 Auto-dialed
  3 Manually dialed
  4 Dedicated
  Enter choice number: 1
  X25 network address of remote host: 004152344455
  Autostart? (Y/N): N
  Circuit description: Link to San Diego
  Confirm circuit information (Y/N): Y
  Done.
IRS!

```

Step-by-step for an auto-dialed circuit

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps
- 7 19200 bps
- 8 28800 bps
- 9 38400 bps
- 10 48000 bps
- 11 56000 bps

Enter choice number:

5. Type the number for the line speed .

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

6. Type the number for the duplexity of the equipment .

Description:

7. Type the circuit description .

Want to add a number to the current phone list? (Y/N):

8. Type **Y** or **N** to add a phone number to the phone list .

Y Lets you add a phone number and displays this prompt:

Phone number:

- a. Type the phone number (for example, 213-555-3333) .

Phone number description:

- b. Type the phone number description .

Want to add another number to the current phone list? (Y/N):

c. Type **Y** or **N** to add another phone number .

N Continue with step 10 of this procedure.

Confirm circuit information (Y/N):

9. Type **Y** or **N** at the "Confirm circuit information" prompt .

Y Confirms the information and adds the circuit.

N Cancels the command.

Done.
IRS!

Wrap-up

When you see the message "Done," you have successfully added the circuit. Proceed to "Step 15. Starting the Internetwork Routing Service."

Example

This example shows adding an auto-dialed circuit running at 3600 bps.

IRS!Add Circuit

Circuit types

- 1 X.25 SVC
- 2 Auto-dialed
- 3 Manually dialed
- 4 Dedicated

Enter choice number: **2**

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps
- 7 19200 bps
- 8 28800 bps
- 9 38400 bps
- 10 48000 bps
- 11 56000 bps

Enter choice number: **3**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **1**Description: **Outside line**Want to add a number to the current phone list? (Y/N): **Y**Phone number: **213-454-2323**Phone number description: **Bldg 2017**

Want to add another number to the current phone list?

(Y/N): **N**Confirm circuit information (Y/N): **Y**

Done.

IRS!

Step-by-step for a manually dialed or dedicated circuit

Should this line be autostarted? (Y/N):

5. Type **Y** or **N** to autostart the line .
- Y** Starts the circuit automatically when the Internetwork Routing Service is run.
- N** Does not start the circuit automatically when the Internetwork Routing Service is run.

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps
- 7 19200 bps
- 8 28800 bps
- 9 38400 bps
- 10 48000 bps
- 11 56000 bps

Enter choice number:

6. Type the number for the line speed .

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

7. Type the number for the duplexity of the equipment .

Description:

8. Type the circuit description .

Is this circuit part of a clusternet? (Y/N):

9. Type **Y** or **N** at the "Is this circuit part of a clusternet?" prompt .

Y Displays this prompt:

Clusternet number:

Type the clusternet number .

N Continue with step 10 of this procedure.

Confirm circuit information (Y/N):

10. Type **Y** or **N** at the "Confirm circuit information" prompt .
- Y** Confirms the information and adds the circuit.
 - N** Returns you to step 5 of the manually dialed or dedicated circuit procedure.

Wrap-up

When you see the message "Done," you have successfully added the circuit. Proceed to "Step 15. Starting the Internetwork Routing Service."

Example

This example shows adding a manually dialed circuit.

IRS!Add Circuit

Circuit types

- 1 X.25 SVC
- 2 Auto-dialed
- 3 Manually dialed
- 4 Dedicated

Enter choice number: **3**

Should this line be autostarted? (Y/N): **N**

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps
- 7 19200 bps
- 8 28800 bps
- 9 38400 bps
- 10 48000 bps
- 11 56000 bps

Enter choice number: **2**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **1**

Description: **Testing**

Is this circuit part of a clusternet? (Y/N): **Y**

Clusternet number: **1-045**

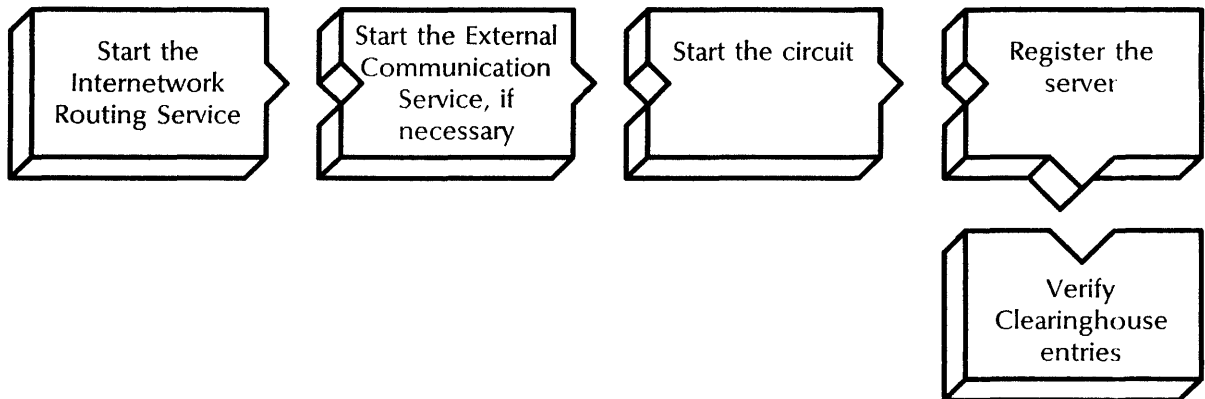
Circuit added to clusternet number 1-045.

Confirm circuit information (Y/N): **Y**

Done.

IRS!

Step 15. Starting the Internetwork Routing Service



Use this procedure to start the Internetwork Routing Service, the External Communication Service, and the circuit, and to register the server.

Step-by-step

1. Type **Start Service** .

Select choices

- 1 Internetwork Routing Service
- 2 External Communication Service
- 3 <service name>

Enter one or more choices:

2. Type the numbers for the Internetwork Routing Service, and, if applicable, the External Communication Service .

<service name> started.
IRS!

3. If you did not configure your circuits to run automatically, type **Start Circuit** .

Circuits

- 1 <circuit>
- 2 <circuit>

Enter choice number:

4. Type the number of the circuit you are starting .

Acquire connection for <circuit description>
Done.
IRS!

5. Type **Show Logged On User** to verify that you have domain access .

```
User: <name:domain:organization >
Status: <status >
IRS!
```

6. Type **Register Server** .

```
Server Name: <name >
Server Description: <description >
Validating server registration..Server registration validated.
IRS!
```

7. Type **Internetwork Routing Service** and press RETURN.
If you are already in that context, **skip to step 8.**

```
IRS!
```

8. Type **Register** .

```
Validating Clearinghouse entry for <IRS name:domain:
organization >
Done
IRS!
```

9. If you have a Communication Interface Unit, type **External Communication Service** to enter that context .

```
ECS!
```

10. Type **Verify Clearinghouse Entries** .

```
Should all entries be verified? (Y/N):
```

11. Type **Y** to verify all entries .

```
Attempting to determine the name of this External
Communication Service.
Validating Clearinghouse entry for <ECS
name:domain:organization >
Done
Clearinghouse update complete
Clearinghouse entry verification complete.
ECS!
```

Wrap-up

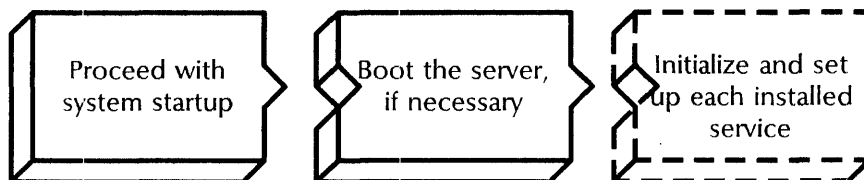
When you see the message, "Clearinghouse entry verification complete," proceed to "Step 16. Completing the installation."

Example

This example shows starting the Internetwork Routing Service and the External Communication Service, starting the circuit, and registering the server and services.

```
IRS!Start Service
Select choices
1 External Communication Service
2 Internetwork Routing Service
3 Clearinghouse Service
Enter one or more choices:1,2
External Communication Service started.
Internetwork Routing Service started.
IRS!Start Circuit
Circuits
1 X.25 circuit
Enter choice number: 1
Acquire connection for "X.25 circuit"
Done.
IRS!Show Logged On User
User: Matthew Bennett:OurDomain:OurOrg
Status: System Administrator, Enabled
IRS!Register Server
Server Name: Foxdale:OurDomain:OurOrg
Server Description: FS-Foxdale, 2nd Floor, East Wing
Validating server registration..Server registration validated.
IRS!Register
Validating Clearinghouse entry for OurIRS:Our Domain:Our
Org
Done
IRS!External Communication Service
ECS!Verify Clearinghouse Entries
Should all entries be verified? (Y/N): Y
Attempting to determine the name of this External
Communication Service.
Validating Clearinghouse entry for
OurECS:OurDomain:OurOrg
Done
Clearinghouse update complete
Clearinghouse entry verification complete.
ECS!
```

Step 16. Completing the installation



Use this procedure to complete the installation of your services.

Step-by-step

1. Type **Proceed** .
2. If you installed a Multiport Option Kit, boot the server. If you did not install the Multiport Option, skip to "Wrap-up."
 - a. Hold down the Boot Reset (B RESET) and Alternate B (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate B (ALT B) button.

Normal Startup? (Y/N):

3. Type **Y** at the "Normal Startup" prompt .
- Y** Normally starts and runs each service loaded on the server.
- N** Starts the services, but requires user interaction for the non-normal startup options.

Wrap-up

Turn to the service-specific chapters in this book to initialize and set up each service.

If you are bringing additional drives online, follow the procedure "Creating a services volume on a secondary drive" in the Services System Software chapter of the *Services Maintenance Guide*.

3. Clearinghouse Service

This chapter contains the procedures you perform to set up the Clearinghouse Service. These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Clearinghouse Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Install the first Clearinghouse Service as described in the Server Software Installation chapter of this book.
- Have handy the Clearinghouse Service Worksheets. You filled out these worksheets when you read the *Guide to System Administration Activities*, and placed the completed copies in the *Activities Guide*.

Commands

This section lists commands you use to set up the Clearinghouse Service. You must be in the Clearinghouse Service context to access these commands.

Table 3-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 3-1. Clearinghouse Service setup commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Domain						•
Add Group					•	•
Add Member					•	•
Add User					•	•
Change Group Access			•	•	•	•
Delete Domain					•	•
Run Service						•
Show Domain			•	•	•	•
Start Service						•
Stop Service					•	

Add Domain Available to the enabled user when the Clearinghouse Service is stopped. Creates a new domain, or replicates an existing domain, and adds it to the local database.



When you add a new domain to an internetwork, you must have access to the organization that is to contain the domain. If you create a domain in a new organization, you must provide an organization-specific password.

Related procedure: Replicating domains

Add Group Available to the enabled user when the Clearinghouse Service is started or stopped. Creates user groups.

Related procedure: Adding user groups

Add Member Available to the enabled user who has administrative or self access to a group when the Clearinghouse Service is started or stopped. Adds members to user groups. You can use explicit names, aliases, or patterns to add members. This command requires administrative access. Users with self access may add themselves to an open group.

Related procedure: Adding user groups

Add User Available to the enabled user when the Clearinghouse Service is started or stopped. Creates user entries. You use this command to register a user by a fully qualified name, description, password, home File Service, and aliases.

Related procedure: Adding users

Change Group Access

Available to the logged on user when the Clearinghouse Service is started or stopped. Grants or revokes administrative or self access to a user group. Any user with administrative access to a group can change the administrative access privileges of other users, including Domain Administrators.



The changes you make with this command take effect immediately, before you terminate the command. When you grant explicit administrative access to a new group, the Clearinghouse immediately revokes your implicit administrative access. Note that the Domain Administrator can delete any user group, whether or not the Domain Administrator has administrative access to it.

Related procedure: Adding user groups

Delete Domain

Available to the enabled user when the Clearinghouse Service is started or stopped. Removes all copies of the domain from the local Clearinghouse Service.



CAUTION: Before the Clearinghouse deletes the last copy of a domain, the Clearinghouse issues a warning and requests a confirmation. The domain ceases to exist when you confirm the deletion. If the domain was the last one in its organization, the Clearinghouse also deletes the organization. You need administrative access to the domain and organization to delete the last copy of the domain or the organization.

Related procedure: Replicating domains

Run Service

Available to the enabled user when the Clearinghouse Service is stopped. Runs the software files for a service not currently running, bringing the service to a fully operational state. Use this command when you want to invoke a non-normal service startup to access a service's non-normal options, or to configure a service before you run other coresident services.

Related procedure: Initializing the second or a subsequent Clearinghouse

Show Domain

Available to the logged-on user when the Clearinghouse Service is started or stopped. Displays the size of the domain, its replication status, and its access control settings.



Do not use asterisks to specify a domain (for example, “*:Los Angeles”). The server may search for 15 minutes to 3 hours before displaying information. The information will be for a domain whose names matches the pattern but which may not be the domain you want.

Related procedure: Replicating domains

Start Service

Available to the enabled user when the Clearinghouse Service is stopped. Starts the currently loaded and stopped services you specify. You can also use this command to explicitly start a service after a service-specific failure.

Related procedure: Replicating domains

Stop Service

Available to the enabled user when the Clearinghouse Service is started. Stops the currently loaded and started services you specify so you can change certain parameters. The service continues to run, but does not respond to external requests.

Related procedure: Replicating domains

Procedures

This section contains these procedures for setting up the second or subsequent Clearinghouse Service:

Initializing the second or a subsequent Clearinghouse

Use this procedure to initialize the second or a subsequent Clearinghouse on a single network or an internetwork.

Replicating domains

Use this procedure to replicate a Clearinghouse domain to one or more Clearinghouse Services on other servers.

Adding users

Use this procedure to add users to the Clearinghouse database.

Adding user groups

Use this procedure to add user groups to the Clearinghouse database.

Follow the procedures in the order they appear in this section.

Initializing the second or subsequent Clearinghouse



Use this procedure to initialize the second or subsequent Clearinghouse Service on a single network or internetwork. You install the first Clearinghouse on a network or internetwork during first-time server software installation. See the Server Software Installation chapter of the *Guide to System Administration Activities*, and this book for more information.

Prerequisites

- Install and activate the second or a subsequent Clearinghouse on the network
- See the Clearinghouse Worksheet in your *Activities Guide* for the name of the service

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Run Service** .

```
Select choice:
1 <service name>
2 Clearinghouse Service
3 <service name>
Enter one or more choices:
```

3. Type the number for the Clearinghouse Service .

```
CHS: Normal Startup? (Y/N):
```

4. Type **Y** at the "Normal Startup" prompt .
 - Y** Normally starts and runs the service.
 - N** Starts the service, but requires user interaction for the non-normal startup options.

```
Running Clearinghouse Service.
Opening Clearinghouse Service database.
This Clearinghouse Service has not been named. Please
enter its name.
Name:
```

5. Type the name you want to give the Clearinghouse Service and press RETURN. Do not type the domain and organization names.

```
Is this the first Clearinghouse server on the internet? (Y/N):
```

6. Type **N** at the "Is this the first Clearinghouse server on the internet" prompt and press RETURN. This prompt appears

only if the new Clearinghouse Service cannot contact another Clearinghouse Service.



CAUTION: Do not type **Y** if you are adding a new Clearinghouse Service to an existing internetwork. This may destroy the Clearinghouse system and you will have to recreate it.

- Y** Initializes the database for a new Clearinghouse system.
- N** Continues to search for an available Clearinghouse Service within the Clearinghouse system to which you are adding this Clearinghouse Service.

```
< name > is not registered in the Clearinghouse.  
Registering.  
Done. Clearinghouse database open.  
Clearinghouse Service functions are now available to  
network.  
Clearinghouse Service run.  
CHS!
```

Wrap-up

When you see the message "Clearinghouse Service run," you have successfully registered the new Clearinghouse Service and its database is ready for use.

Perform the procedure "Replicating domains" next.

Example

This example shows adding a Clearinghouse Service named Angel to a network. The service becomes part of an existing Clearinghouse System.

!Run Service

Select choice:

- 1 Server Monitor Service
- 2 Clearinghouse Service

Enter one or more choices: **2**

CHS: Normal Startup? (Y/N): **Y**

Running Clearinghouse Service.

Opening Clearinghouse Service database.

This Clearinghouse Service has not been named. Please enter its name.

Name: **Angel**

Is this the first Clearinghouse server on the internet? (Y/N): **N**

Angel is not registered in the Clearinghouse. Registering.

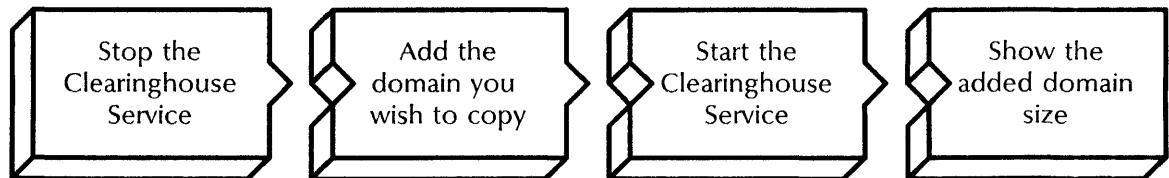
Done. Clearinghouse database open.

Clearinghouse Service functions are now available to network.

Clearinghouse Service run.

CHS!

Replicating domains



You can increase the reliability, availability, and efficiency of your Clearinghouse system by replicating your domain to one or more Clearinghouse Services. Perform this procedure during off-peak hours to minimize service interruptions.



When you replicate a new domain, the information in the domain is added to the Clearinghouse. All other Clearinghouses in the organization are then notified that this Clearinghouse serves the replicated domain.

See the Clearinghouse Service chapter of the *Guide to System Administration Activities* for more information about domain replication.

Prerequisites

If you are adding a copy of a domain from another network:

- Use the **Show Domain** command to check the size of the domain you want to copy in relationship to the other

Clearinghouse database. Verify that the destination Clearinghouse database has adequate space available.

- Verify that the Internetwork Routing Service circuits are started.
- Contact the Domain Administrator of the other network to obtain temporary Domain Administrator access to that domain. If the other network is in a different organization, you will need temporary Organization Administrator access as well.
- Give the System Administrator of the destination domain temporary Domain Administrator access to your source domain. If the source domain is in a different organization from the destination domain, give the System Administrator Organization Administrator access as well.
- Know the name of the domain you are copying (see your Clearinghouse Service Worksheet in the *Activities Guide*).

If you are adding a copy of a domain in the same network:

- Use the **Show Domain** command to check the size of your Clearinghouse database and verify that adequate space is available.
- Know the name of the domain you are copying (see your Clearinghouse Service Worksheet in the *Activities Guide*).

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Stop Service**

```
Select choices
1 Clearinghouse Service
Enter one or more choices:
```

3. Type the number for the Clearinghouse Service .

```
CHS: Stop Immediately? (Y/N):
```

4. Type **Y** at the "Stop Immediately" prompt .
 - Y** Stops the Clearinghouse Service immediately; all service functions are unavailable to the network.
 - N** Stops the Clearinghouse Service after all current activity ends.

```
Stopping Clearinghouse Service.
Clearinghouse Service functions are now unavailable to
the network.
CHS!
```

5. Type **Add Domain** ↵.

Domain name:

6. Type the name of the domain you want to copy ↵.

Size = <number> pages.
Copying Domain <domain:organization> to this CHS.
Confirm? (Y/N):

7. Type **Y** or **N** at the "Confirm" prompt ↵.
Y Confirms the copying of the domain.
N Cancels the process; return to step 6.

Done.
CHS!

8. Type **Start Service** ↵.

Select choices
1 Clearinghouse Service
Enter one or more choices:

9. Type the number for the Clearinghouse Service ↵.

Starting Clearinghouse Service.
Clearinghouse Service functions are now available to the
network.
CHS!

10. Type **Show Domain** ↵.

Name:

11. Type the name of the copied domain ↵.

Size = <number> pages.
Administered by:
 <Administrator's name:Domain:Organization>
Served by CHSs:
 <CHS name>
CHS!

12. If the domain you copied contains entries, and the resulting copy is 10 pages or smaller, **continue with step 13**.
If the copy is larger than 10 pages, you are done.
13. Type **Stop Service** ↵.

Select choices
 1 Clearinghouse Service
 Enter one or more choices:

14. Type the number for the Clearinghouse Service

CHS:Stop Immediately? (Y/N):

15. Type **Y** at the "Stop Immediately" prompt .
- Y** Stops the Clearinghouse Service immediately; all service functions are unavailable to the network.
 - N** Stops the Clearinghouse Service after all current activity ends.

Stopping Clearinghouse Service.
 Clearinghouse Service functions are now unavailable to the network.
 CHS!

16. Type **Delete Domain** .

Domain name:

17. Type the name of the domain you just copied .

Deleting < domain:organization > from this CHS.
 Confirm? (Y/N):

18. Type **Y** at the "Confirm" prompt .
- Y** Confirms the deletion.
 - N** Return to step 14.

Warning: This is the only copy of < domain name:organization name >
 Confirm destruction of this domain? (Y/N):

19. Type **Y** or **N** at the prompt for reconfirmation .



CAUTION: If you type **Y**, you delete the domain. Make sure that there is another copy of the domain elsewhere, or that you are deleting the right domain.

- Y** Deletes the domain copy.
- N** Return to step 17.

Done.
 CHS!

20. Repeat steps 5 through 12 to recopy the domain.

Wrap-up

When the size of the domain copy matches that of the original domain, you have successfully replicated the domain.

Update the Clearinghouse Service Worksheet with the domain copy location. Now perform the procedure "Adding users."

Example

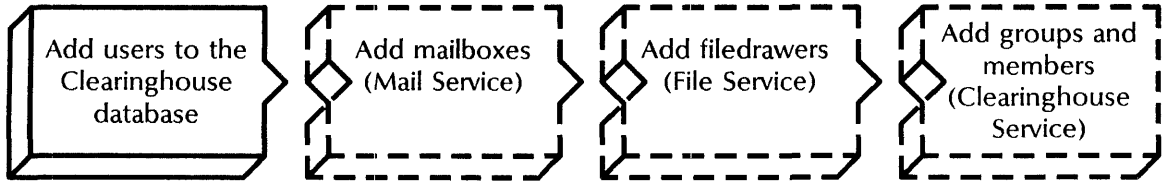
This example shows replicating a domain named Detroit. The **Show Domain** command indicates that the domain was copied in its entirety.

```

CHS! Stop Service
  Select choices
  1  Clearinghouse Service
  2  Internetwork Routing Service
Enter one or more choices: 1
CHS: Stop Immediately? (Y/N): Y
Stopping Clearinghouse Service.
Clearinghouse Service functions are now unavailable to the network.
CHS!Add Domain
  Domain name: Detroit
  Size = 300 pages.
  Copying Domain Detroit:Acme to this CHS. Confirm? (Y/N): Y
  Done.
CHS!Start Service
  Select choices
  1  Clearinghouse Service
  2  Internetwork Routing Service
Enter one or more choices: 1
Starting Clearinghouse Service.
Clearinghouse Service functions are now available to the network.
CHS!Show Domain
  Name: Detroit
  Size = 300 pages.
  Administered by:
    System Administrators: Detroit:Acme
  Served by CHSs:
    Songbird (UP)
    Tonto (UP)
CHS!

```

Adding users



Use this procedure to add users to the Clearinghouse database. You can include at least one short alias for each user. Make sure that no two users have the same user name or alias. The Clearinghouse Service does not allow duplicate names or aliases.

Each name, alias, or password may be up to 40 characters long. Use only those characters on the default keyboard. Do not use the neutral double quotation mark ("), apostrophe ('), back slash (\), circumflex, accent grave, vertical bar (|), or tilde (~).

Prerequisite

See the User Directory Worksheet in the *Activities Guide* for the following information:

- The user's name, password, and description
- The user's home File Service locations and aliases

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Add User** ↵.

First name (and Middle Name, if desired):

3. Type the user's first name (and middle name, if desired) ↵.

Last Name:

4. Type the user's last name ↵.

Password:

5. Type the user's password ↵.

Description:

6. Type a description of the user ↵.

"Home" File Service:

7. Type the name of the user's home File Service .

Alias:

8. Type an alias for the user .

Alias:

9. Type another alias and press RETURN. This prompt repeats until you simply press RETURN.

Confirm this User information? (Y/N):

10. Type **Y** or **N** at the "Confirm this User information" prompt .

Y Adds the user.

N Return to step 3.

Done. <user name:domain:organization> (User) added.
Add another User? (Y/N):

11. Type **Y** or **N** at the "Add another User" prompt .

Y Return to step 3.

N Ends the process.

Wrap-up

When you see the "CHS!" prompt, you have added the new user to the Clearinghouse database.

Continue with these procedures for each user:

- "Adding mailboxes" (see the Mail Service chapter of this book),
- "Creating public file drawers for users" and "Creating private file drawers for users" (see the File Service chapter of this book), and
- "Adding user groups" (next).

If your network has only one Clearinghouse, perform the "Backing up a single Clearinghouse Service" procedure in the Clearinghouse Service chapter of the *Backup and Restore Guide*.

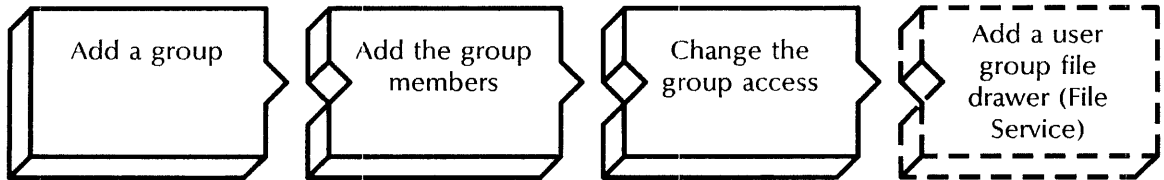
Example

This example shows adding a user named Joyce M Smith. The user has two aliases: her first initial and last name, and her initials.

```

CHS!Add User
First Name (and Middle Name, if desired): Joyce M
Last Name: Smith
Password: *****
Description: Extension 2082
"Home" File Service: Foxdale
Alias: JSmith
Alias: JMS
Alias:
Confirm this User information? (Y/N): Y
Done. Joyce M Smith:Unit1:GemSysCo (User) added.
Add another User? (Y/N): N
CHS!
    
```

Adding user groups



This procedure lets you add a user group to the Clearinghouse.

Prerequisites

- If you are a Group Administrator trying to add yourself to the group, have self access and administrative access privileges.
- See the Group Member Directory Worksheet in the *Activities Guide* for the following information:
 - The group name and description
 - The group members and their access privileges

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Add Group** .

Name:

3. Type the name of the group you want to add .

Description:

4. Type a description of the group **⇐**.

Done. <group name:domain:organization> (Group) added.
CHS!

5. Type **Add Member** **⇐**.

Group:

6. Type the name of the group you just added **⇐**.

Member:

7. Type the name or alias of the first member you want to add to the group **⇐**.

NOTE

If you use a pattern to add a member to the group (for example, *:Boston:Acme), any user whose name matches the pattern becomes a member of the group. If you later add a user whose name matches the pattern, the user automatically becomes a group member.

Done. <member name:domain:organization> added to
<group name:domain:organization>.
Add another Member? (Y/N):

8. Type **Y** or **N** to add another member **⇐**.

Y Return to step 7.

N Ends the process.

9. Type **Change Group Access** **⇐**.

Group:

10. Type the name of the group you just added **⇐**.

Access by:

11. Type the name of the first member you added to the group **⇐**.

NOTE

If you used a pattern to add a member to the group (for example, *:Boston:Acme), you can type the pattern here to give all group members whose names match the pattern the same access privileges. When a System Administrator grants explicit access to a new group, the Clearinghouse immediately revokes the implicit administrative access of the System Administrator.

Admin Access? (Y/N):

CHS!Add GroupName: **SysAdmin:Boston**Description: **Boston System Administrators**

Done. SysAdmin:Boston:Acme (Group) added.

CHS!Add MemberGroup: **SysAdmin:Boston**Member: **Citizen**Done. John Q Citizen:Boston:Acme added to
SysAdmin:Boston:Acme.Add another Member? (Y/N): **N****CHS!Change Group Access**Group: **SysAdmin:Boston**Access by: **Citizen**Admin Access? (Y/N): **N**Self Access? (Y/N): **Y**Change another Access List entry? (Y/N): **N**

Done. Access List Changed

CHS!

This chapter contains the procedures you perform to set up the Mail Service (MS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Mail Service setup procedures:

- Install all required software as described in the Server Software Installation chapter in this book.
- Have handy the Mail Service Worksheet. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed the completed copy in the *Activities Guide*.

Commands

This section lists the commands you use to set up the Mail Service. You must be in the Mail Service context to access these commands. Table 4-1 shows the Mail Service setup commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 4-1. Mail Service setup commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Foreign Domain					•	•
Add Foreign Gateway					•	•
Add Mailbox					•	•

Add Foreign Domain Available to the enabled user. Adds a specific foreign domain to the list of foreign domains accessible through the External Mail Gateway option. The foreign gateway must exist before you can add the foreign domain.

Related procedure: Enabling outbound mail transmission

Add Foreign Gateway Available to the enabled user. Adds a specific foreign inbound gateway telephone number and defines the calling interval. The calling interval specifies a period of time during which the local gateway can dial up the foreign gateway.

Related procedure: Enabling outbound mail transmission

Add Mailbox Available to the enabled user. Adds a new or moves an existing mailbox to the local Mail Service. If the mailbox existed on another Mail Service in the internetwork, this command moves it and its contents to the local Mail Service.

Related procedure: Creating mailboxes, Creating a Postmaster mailbox

Procedures

This section contains these procedures for setting up the Mail Service:

Initializing the Mail Service

Use this procedure to start the Mail Service for the first time, and initialize the RS232C port, if necessary.

Enabling outbound mail transmission

Use this procedure to establish a foreign gateway and foreign domain used by the External Mail Gateway.

Creating mailboxes

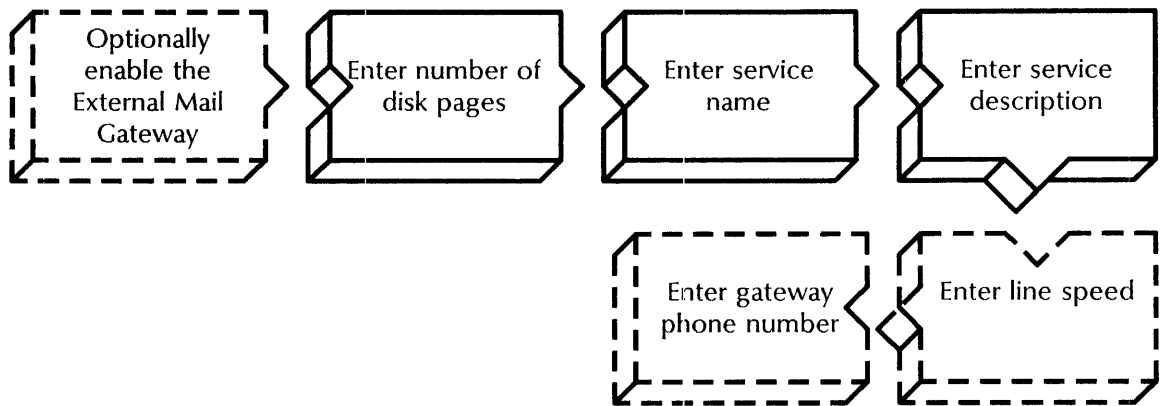
Use this procedure to set up mailboxes for authorized mail users.

Creating a Postmaster mailbox

Use this procedure to set up a mailbox for mail messages that cannot be delivered or messages that are returned to the sender.

Follow the procedures in the order they appear in this chapter.

Initializing the Mail Service



Use this procedure to set the size of the Mail Service database, and identify your service name and description. You can optionally initialize the RS232C port for the External Mail Gateway, as well as enter the line speed and the phone number.

Prerequisites

- See the Mail Service Worksheet in your *Activities Guide* for the following information:
 - The name and description of the Mail Service
 - The number of disk pages for Mail Service database
- Optionally, see the External Mail Gateway section of the Mail Service Worksheet for the following information:
 - The line speed of the modem attached to the RS232C port
 - The local gateway phone number

Step-by-step

1. Immediately after installing and running the Mail Service, type **1** to initialize a database

Number of pages for new database (1500..65,534):

2. Type the number of disk pages for the Mail Service database

Confirm (Y/N):

3. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Sets the number of disk pages and automatically rounds the number to a multiple of six. This process may take a few moments to complete.
 - N** Cancels the process.

Enter service name:

5. Type the local name of the Mail Service and press RETURN. The system adds the server domain and organization names when registering the local name with the Clearinghouse Service.

Enter description:

5. Type the description of the Mail Service .

Confirm (Y/N):

6. Type Y or N at the "Confirm" prompt .
- Y** Registers the service in the Clearinghouse.
 - N** Return to step 4.
- The procedure is complete if the External Mail Gateway option is not enabled. **Skip to the "Creating mailboxes" procedure.**
 - If the External Mail Gateway option is enabled, **continue with step 7.**

Mail Gateway RS232C port not initialized.

Select line speed:

- 1 1200
- 2 2400
- 3 3600
- 4 4800
- 5 7200
- 6 9600

Enter choice number:

7. Type the number that identifies the line speed of the modem \Leftarrow .

Local gateway phone number:

8. Type the phone number (including area code, if necessary) of the local gateway and press RETURN. Enter the number without hyphens or other separators.

Mail Service started.
Mail Service run.

Wrap-up

When you see the "Mail Service run" message, you have successfully initialized the Mail Service, as well as enabled the optional External Mail Gateway.

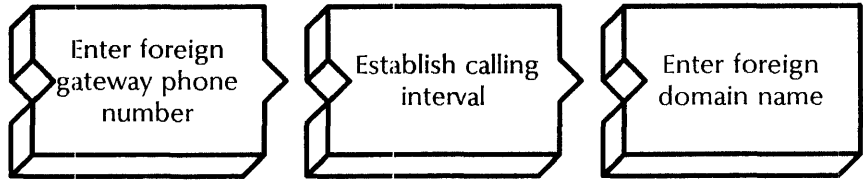
Next perform the "Enabling outbound mail transmission" procedure to setup the foreign gateway and the foreign domain for use by the External Mail Gateway.

Example

This example shows initializing a Mail Service named Speedy. A limit of 9996 disk pages is established as the database size. In addition, an RS232C port is initialized for use by the External Mail Gateway.

```
No existing Mail Service database found.
Specify Mail Service startup option
 1 Initialize new database
 2 Restore old database
Enter choice number: 1
Initializing Mail Service database.
Number of pages for new database (1500..59,892): 10000
Database size will be 9996 disk pages.
Confirm (Y/N): Y
Service name and description unknown.
Enter service name: Speedy
Enter description: Los Angeles Mail Service
Confirm (Y/N): Y
Validating Clearinghouse entry for: Speedy:LosAngeles:GemSysCo
A new Clearinghouse entry was created.
Done
Mail Gateway RS232C port not initialized.
Select line speed
 1 1200 bps
 2 2400 bps
 3 3600 bps
 4 4800 bps
 5 7200 bps
 6 9600 bps
Enter choice number: 1
Local gateway phone number: 2131112345
Mail Service started.
Mail Service run.
```

Enabling outbound mail transmission



Use this procedure to add the foreign gateway and domain the External Mail Gateway uses to send mail to recipients in other Xerox networks.

Prerequisites

See the *Mail Service Worksheet* in your *Activities Guide* for the following information:

- The area code and phone number for the foreign gateway
- Length and start time of the calling interval
- Fully qualified name of the foreign domain

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Add Foreign Gateway** \leftarrow .

Phone number:

3. Type the area code and phone number of the foreign gateway and press RETURN. Do not use parentheses or hyphens.

Start time of calling interval:

4. Type the start time of the calling interval in the HH:MM format \leftarrow .

Length of calling interval:

5. Type the length of the calling interval in the HH:MM format \leftarrow .

Done.
MS!

6. Type **Add Foreign Domain** \leftarrow .

Foreign domain name:

7. Type the fully qualified name of the foreign domain \leftarrow .

Foreign Gateway (phone number):

8. Type the area code and phone number of the foreign gateway entered in step 3 and press RETURN. Do not use parentheses or hyphens.
9. Repeat steps 6 through 8 for each foreign domain you want to add to this foreign gateway.

Wrap-up

When you see the "Done" message, you have added the foreign gateway and domains for use by the External Mail Gateway.

Perform the next procedure to create mailboxes for use by mail recipients.

Example

This example shows adding a foreign gateway and one foreign domain.

```
MS!Add Foreign Gateway
  Phone number: 2135554748
  Start time of calling interval: 22:00
  Length of calling interval: 04:30
Done.
MS!Add Foreign Domain
  Foreign Domain name: Boston:Mutual
  Foreign Gateway (phone number): 2135554748
Done.
```


Creating mailboxes



Use this procedure to create a mailbox for each authorized user.

Prerequisites

Make sure the user names are registered with the Clearinghouse Service. If not, see the Clearinghouse Service chapter in this book for information on registering users.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Add Mailbox** .

Name:

3. Type the user name or alias at the "Name" prompt and press RETURN. Do not include the domain and organization names.

Confirm? (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Adds the mailbox to the local Mail Service database.
 - N** Cancels the process.

NOTE

The procedure is complete unless the mailbox previously existed on another Mail Service. If so, continue with step 5.

Do you want the mailbox moved to this server? (Y/N):

5. Type **Y** or **N** at the "Do you want the mailbox moved to this server" prompt .
 - Y** Moves the mailbox to the local Mail Service database.
 - N** Cancels the process.

NOTE

In most cases, the mailbox information is added within minutes. However, it may take up to two days for the mailbox information to propagate through more than one Clearinghouse Service.

Wrap-up

When you see the "Done" message, you have added a mailbox to the local Mail Service.

Example

This example shows adding a mailbox that previously existed on another Mail Service.

```
MS!Add Mailbox
  Name: Thomas
Adding Mailbox James Q. Thomas:LosAngeles:GemSysCo
  Confirm? (Y/N): Y
Warning: Mailbox is registered on another server.
  Do you want the mailbox moved to this server? (Y/N): Y
Done
MS!
```

Creating a Postmaster mailbox



Use this procedure to create a Postmaster mailbox to contain non-notification messages.

Prerequisites

Make sure the name of the Postmaster mailbox is registered in the Clearinghouse Service database. If not, see the Clearinghouse Service chapter in this book for information on registering users.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Add Mailbox** .

Name:

3. Type the fully qualified name of the Postmaster mailbox .

Confirm? (Y/N):

4. Type **Y** or **N** at the "Confirm" prompt .
- Y** Adds the Postmaster mailbox to the local Mail Service database.
- N** Cancels the procedure.

Done.
MS!

Wrap-up

When you see the "Done" message, you have added a Postmaster mailbox to the local Mail Service.

Example

This example shows adding a Postmaster mailbox to the Speedy Mail Service.

MS!Add Mailbox

Name: **Postmaster of Speedy:Los Angeles:GemSysCo**

Adding Mailbox Postmaster of Speedy:Los Angeles:GemSysCo

Confirm? (Y/N): **Y**

Done.

MS!

This chapter contains the procedures for setting up the Print Service. These procedures are available using an 8000 or an 8090 server and these software versions:

- 11.0 - This chapter supports the procedures you perform for an 8040 Series or a Laser CP Electronic Printer. You can run 11.0 software on an 8000 or an 8090 server.
- 10.0 through 10.3 - This chapter supports the procedures you perform for a Telecopier 495-1 Printer or a Formatting Print Service. You can run 10.0, 10.2, or 10.3 software on an 8000 server only.

Unless otherwise labeled, the procedures in this chapter apply to all software versions. Be sure you use the appropriate procedure for your software version.

Prerequisites

Complete these tasks before you perform any Print Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Install all required hardware for the printing option you are setting up. See the Print Service chapter in the *Guide to System Administration Activities* for the hardware requirements.
- Have handy the Print Service Worksheet which lists the information you need during setup. You filled out this worksheet as you read the *Guide to System Administration Activities* and placed the completed copy in the *Activities Guide*.

Commands

This section lists the commands you use to set up the Print Service. You must be in the Print Service context to access the Print Service commands.

Table 5-1 shows the Print Service setup commands along with the logged on status and the service state (started or stopped) for accessing the command.

Table 5-1. **Print Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Install Fonts and Test Patterns					•	
Install From Floppy					•	
Set Target Print Service					•	
Start Diagnostic	•		•		•	
Start Printing			•		•	
Stop Printing					•	

Install Fonts and Test Patterns

Available to the enabled user when the Print Service is started and printing is stopped. This command is available only if the server is running software version 11.0. Installs fonts and test patterns from floppy disks or cartridge tapes.

Related procedure: Loading fonts and test patterns onto the Print Service

Install From Floppy

Available to the enabled user when the Print Service is started and printing is stopped. This command is available only if you have an 8000 server running software version 10.0, 10.2, or 10.3. Installs fonts and test patterns from floppy disks.

Related procedure: Loading fonts and test patterns onto the Print Service

Proceed

Available to the enabled user. This Services System Software command is available at all initialization interrupt points after rebooting the server and selecting a non-normal startup. It leaves an interrupt point and continues to the next interrupt point. If there are no interrupt points remaining, the system runs all activated services and completes server initialization.

Related procedure: Changing the printing option

Run Service

Available to the enabled user. This Services System Software command runs the software files for a service not currently running, bringing the service to a fully operational state. Use this command to invoke a non-normal service startup or to run and configure a service before you run other coresident services.

Related procedure: Changing the printing option

-
- Set Target Print Service** Available to the enabled user when the Print Service is started and the printing option is the Formatting Print Service. This command is available only if you have an 8000 server running software version 10.0, 10.2, or 10.3. Specifies a printer as the Target Print Service.
- Related procedure:** Setting the Target Print Service
- Start Diagnostic** Available to any user who has an 8000 server running software version 10.0, 10.2, or 10.3. Sets the internal clock of the Telecopier 495-1 to the current time of the server.
- Related procedure:** Setting the Telecopier 495-1 clock, Testing communication from the server to the printer
- Start Printing** Available to the logged on user when the Print Service is started and printing is stopped. Prints documents in the document queue. Also displays the name of the user who stopped printing and the reason printing was stopped, if known. Printing is stopped automatically at system installation and should normally be restarted after installation of fonts. When the Print Service is started, printing starts automatically if there are documents in the queue.
- Related procedure:** Loading fonts and test patterns onto the Print Service
- Stop Printing** Available to the enabled user when the Print Service is started and printing is started. Stops printing so you can load fonts and test patterns. (Test patterns may still be printed when printing is stopped.) Printing remains stopped until it is started again, even if the server is rebooted. Documents currently in progress are requeued for retry when printing is restarted.
- Related procedure:** Loading fonts and test patterns onto the Print Service

Procedures

This section contains the following procedures for setting up the Print Service. Setting up includes initializing the Print Service, loading the basic fonts and test patterns, and setting the operational parameters for the selected printing option, if required.

Initializing the 8040 Series Electronic Printer, the Laser CP Electronic Printer, or the Formatting Print Service

Use this procedure to select the desired printing option and register your entry with the Clearinghouse.

Initializing the Telecopier 495-1 Printer (versions 10.0 through 10.3 only)

Use this procedure to select the Telecopier 495-1 printing option and register your entry with the Clearinghouse.

Loading fonts and test patterns onto the Print Service

Use this procedure to load fonts and test patterns onto the Print Service.

Setting the switches on the Telecopier 495-1 (versions 10.0 through 10.3 only)

Use this procedure to configure the RS232C interface.

Setting the Telecopier 495-1 clock (versions 10.0 through 10.3 only)

Use this procedure to set the internal clock of the Telecopier 495-1 to the current time of the server.

Testing communication from the server to the printer (versions 10.0 through 10.3 only)

Use this procedure to verify communication from the server to the printer.

Setting the Target Print Service (versions 10.0 through 10.3 only)

Use this procedure to specify the Target Print Service to receive your documents for printing.

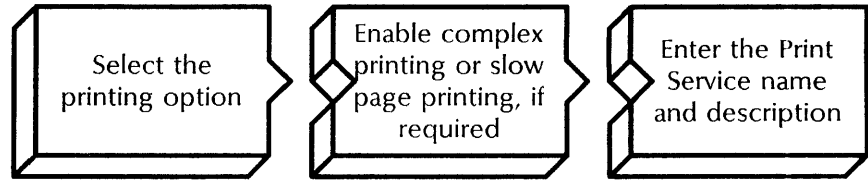
Changing the printing option

Use this procedure to change your configuration to support a different type of printer.

The individual procedures may vary for your printing option. Begin by initializing the Print Service; the Wrap-up section directs you to the next procedure.

In the rare event that the Print Service crashes during initialization, before cataloging fonts, or while cataloging fonts; see "Recovery procedures" in the Print Service chapter of the *Services Maintenance Guide*.

Initializing the 8040 Series Electronic Printer, the Laser CP Electronic Printer (version 11.0 only), or the Formatting Print Service (versions 10.0 through 10.3 only)



Use this procedure to select the printing option, name and describe the Print Service, and enter specific printer information. This procedure registers the 8040 Series Electronic Printer, Laser CP Electronic Printer, or Formatting Print Service in the Clearinghouse.

Prerequisites

- See the Print Service Worksheet in your *Activities Guide* for the following information:
 - Whether you have a B1 or B2 version printer, if your printing option is an 8040 Series Electronic Printer
 - The local name and description of your Print Service
- If your printing option is an 8040 Series or Laser CP Electronic Printer, know when to use the complex printing and slow page printing features; resource requirements must be met before you can enable these features. See "Planning for setup" in the Print Service chapter of the *Guide to System Administration Activities* if you need more information.

Step-by-step

```

Specify printing option
1  <printing option >
2  <printing option >
Enter choice number:
  
```

1. Immediately after installing and running the Print Service, type the number for your printing option **↵**.

Specify printer version

1 B1

2 B2

Enter choice number:

2. If you selected the 8040 Series Electronic Printer, type the number for your printer version and press RETURN. If you selected the Laser CP Electronic Printer, **skip to step 3**. If you selected the Formatting Print Service, **skip to step 5**.

Reserve extra disk pages for complex printing (required for scanned images)? (Y/N):

3. You see the above prompt only if the server has sufficient resources. Type **Y** or **N** .
 - Y** Enables the complex printing and slow page printing features and reserves the required disk space. **Skip to step 5**.
 - N** Does not enable the complex printing feature. **Continue with step 4**.

Enable slow page printing as needed to avoid printing gaps (uses extra disk pgs)? (Y/N):

4. Type **Y** or **N** to enable slow page printing .
 - Y** Enables the slow page printing feature.
 - N** Does not enable the slow page printing feature.

Service name and description unknown

Enter service name:

5. Type the local name of the Print Service at the "Enter service name" prompt and press RETURN. (The domain and organization default to those of the server.)

Enter service description:

6. Type the description at the "Enter service description" prompt .

NOTE

The description may be the location of the printer or Target Print Service, the department, or other identifying information.

Confirm (Y/N):

7. Type **Y** at the "Confirm" prompt .
 - Y** Confirms the service name and description.

- N** Cancels the service name and description and redisplay the prompts.

```
Validating Clearinghouse entry for:
<name:domain:organization>
A new Clearinghouse entry was created
Done
```

Wrap-up

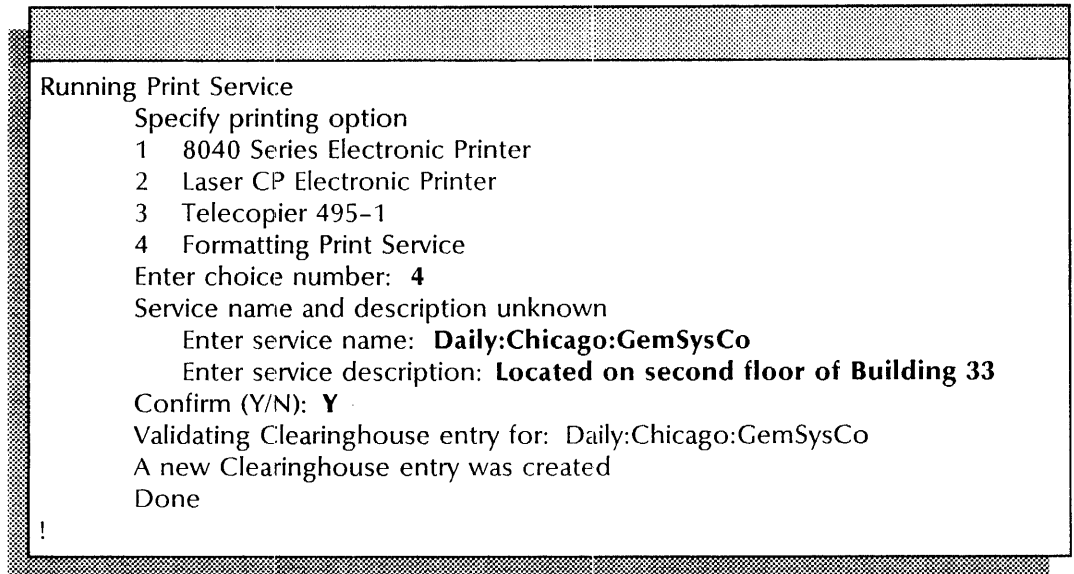
When you see the message "Done," the Print Service has registered itself with the Clearinghouse and completed initialization. Next, perform the "Loading fonts and test patterns onto the Print Service" procedure, later in this chapter.

Examples

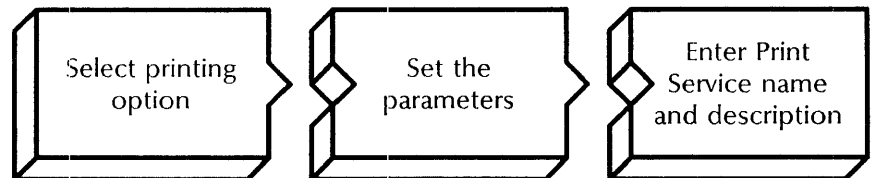
This screen shows initializing the 8040 Series Electronic Printer (B2 version) after the Print Service is installed and running. The complex printing feature is not enabled; the slow page printing feature is enabled. The server is running software version 11.0.

```
Running Print Service
Specify printing option
1 8040 Series Electronic Printer
2 Laser CP Electronic Printer
Enter choice number: 1
Specify printer version:
1 B1
2 B2
Enter choice number: 2
Reserve extra disk pages for complex printing (required for scanned
images)? (Y/N): N
Enable slow page printing as needed to avoid printing gaps (uses extra disk
pgs)? (Y/N): Y
Service name and description unknown
Enter service name: Daily
Enter service description: Located on second floor of Building 33
Confirm (Y/N): Y
Validating Clearinghouse entry for: Daily:Chicago:GemSysCo
A new Clearinghouse entry was created
Done
```

This screen shows initializing the Formatting Print Service after the Print Service is installed and running. The server is running software version 10.0, 10.2, or 10.3.



Initializing the Telecopier 495-1 Printer (versions 10.0 through 10.3 only)



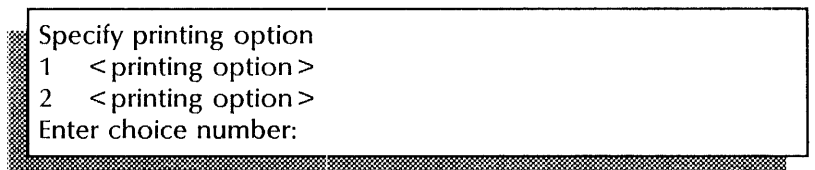
Use this procedure to select the Telecopier 495-1 printing option, set the parameters, and name and describe the Print Service. This procedure registers your entry in the Clearinghouse.

Prerequisites

See the Print Service Worksheet in your *Activities Guide* for the following information:

- The transmission resolution that your telecopier supports
- The local name and description of your Print Service

Step-by-step



1. Immediately after installing and running the Print Service, type the number for the "Telecopier 495-1" option **↵**.

Specify 495-1 paper width supported

- 1 8.5 inches (216 mm)
- 2 210 mm (8.3 inches)

Enter choice number:

2. Type the number for the paper width supported .
 - 8.5 inches - allows printing of letter or legal size documents.
 - 210 mm - allows printing of A4 size documents.

Specify 495-1 transmission resolution supported

- 1 Standard
- 2 Fine

Enter choice number:

3. Type the number for the transmission resolution supported .

Service name and description unknown

Enter service name:

4. Type the local name of the Print Service at the "Enter service name" prompt and press RETURN. The domain and organization default to those of the server.

Enter service description:

5. Type the description at the "Enter service description" prompt .

NOTE

The description may be the location of the printer, the department, or other identifying information.

Confirm (Y/N):

6. Type **Y** at the "Confirm" prompt .
 - Y** Confirms the service name and description.
 - N** Cancels the service name and description and redisplay the prompts.

```
Validating Clearinghouse entry for:
<name:domain:organization>
A new Clearinghouse entry was created
Done
```

Wrap-up

When you see the message "Done," the Print Service has registered itself with the Clearinghouse and completed initialization. Next, perform the "Loading fonts and test patterns onto the Print Service" procedure.

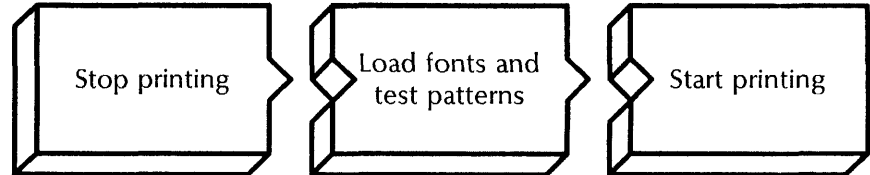
Example

This screen shows initializing the Telecopier 495-1 Printer after the Print Service is installed and running.

```
Running Print Service
Specify printing option
1 8040 Series Electronic Printer
2 Laser CP Electronic Printer
3 Telecopier 495-1
4 Formatting Print Service
Enter choice number: 3
Specify 495-1 paper width supported
1 8.5 inches (216 mm)
2 210 mm (8.3 inches)
Enter choice number: 1
Specify 495-1 transmission resolution support
1 Standard
2 Fine
Enter choice number: 2
Service name and description unknown
Enter service name: Daily
Enter service description: Located on second floor of Building 33
Confirm (Y/N): Y
Validating Clearinghouse entry for: Daily:Chicago:GemSysCo
A new Clearinghouse entry was created
Done
```

!

Loading fonts and test patterns onto the Print Service



Use this procedure to load fonts and test patterns onto the Print Service. Fonts are required to print a document. Test patterns are Interpress masters required for testing the Print Service. Normally, you install fonts and test patterns after initializing your Print Service. You may also use this procedure when you purchase new fonts and when Xerox releases new versions of fonts. As you install fonts, you may see a message indicating that the software option for a font is not enabled. Enabling software options is explained in the Server Software Installation chapter earlier in this book.



Be sure to load the larger set of Modern fonts contained on "Xerox Modern Fonts" instead of the Modern font contained on "Xerox Required Fonts." That way, the Print Service can substitute the Modern font if a requested font is not loaded.

If you load extended language fonts, delete the duplicate regular fonts (Xerox.XC1-1-1.Modern and Xerox.XC1-1-1.Classic).

If your installation medium is floppy disk and one part of a font file is on one floppy disk and the other part is on a second floppy disk, the system prompts you to insert the second disk at the appropriate time.

The installation medium for an 8090 server is cartridge tape; for an 8000 server, the medium is floppy disk.

Prerequisites

- Know the fonts and test patterns you need to install for your printing option.
- Obtain the cartridge tapes or floppy disks containing the font files and test patterns you want to install.
- Understand the terms appearing on the screen as you load fonts (i.e., New, Newer, Same, Older, Larger, Smaller).
- If you are loading extended language fonts, have a server with at least 80 Mb of disk storage to load both the Classic and Modern font sets; at least 42 Mb to load one of the font sets.

See "Planning for installation" and "Planning for setup" in the Print Service chapter of the *Guide to System Administration Activities* if you need more information.

Step-by-step

1. Log on and enable in the Print Service context.
2. If this is a first-time installation of fonts, printing is already stopped; **skip to step 3**. Otherwise, type **Stop Printing** .

Please enter reason:

3. Type the reason for stopping printing and press RETURN. Simply press RETURN to skip this prompt.



Providing the reason informs users of the status of the Print Service so they will not restart printing before you complete your task.

Stopping printing...

Done.

PS!

4. Insert the installation medium containing the required fonts.
5. Type the appropriate command for your printing option:
 - If you have an 8040 Series or a Laser CP Electronic Printer, type **Install Fonts and Test Patterns** ↵.
 - If you have a Telecopier 495-1 or a Formatting Print Service, type **Install From Floppy** ↵.
6. Proceed as appropriate for your printing option:

Select installation source

- 1 Local device
 - 2 Remote directory
- Enter choice number:

- If you have an 8040 Series or a Laser CP Electronic Printer, type **1** for the “Local device” option and press RETURN. **Continue with step 7.**

Install from Floppy: <floppy disk name> (Y/N):

- If your printing option is a Telecopier 495-1 or a Formatting Print Service, type **Y** or **N** to confirm the name of the floppy disk and press RETURN. **Skip to step 8.**

Confirm each file? (Y/N):

7. Type **Y** or **N** at the “Confirm each file” prompt ↵.
 - Y** Lets you confirm each file to be loaded. **Continue with step 8.**
 - N** Loads files automatically without confirmation. Loads new, newer, and larger files; does not load same, older, and smaller files. **Skip to step 9.**

Install <file type> <date> <time>? (Y/N):

8. Type **Y** or **N** at each installation prompt and press RETURN. A prompt appears for each font and test pattern on the installation medium.

Y Confirms installation of the font.

N Prevents installation of the font.



When the installation prompts fill the server screen, you see the "(More)" prompt. To proceed with installation, type any character to scroll the screen.



CAUTION: If your installation medium is the floppy disk, the "(More)" prompt may also appear immediately after the message to insert the next floppy disk. If you changed the floppy disk before scrolling the screen, the new disk is not recognized. Remove the floppy disk. When the "(More)" prompt appears, type any character and then insert the new disk.

9. Remove the tape or floppy disk when the fonts and test patterns are loaded.
10. Repeat steps 5 through 9 to load the additional fonts you want.
11. Type **Start Printing** \Leftarrow .

Printing stopped by: <Name> Reason: <reason>
Please confirm Start Printing (Y/N):

12. Type **Y** at the "Please confirm Start Printing" prompt and press RETURN. The above prompt appears only if you entered the reason for stopping printing in step 3.

Y Restarts printing.

N Cancels the command.



When you start printing for the Laser CP printer, font rotation occurs. Font rotation requires about 48 minutes for a full selection of fonts. Font cataloging takes several minutes and occurs for all printing options.

PS: Cataloging fonts (this may take a while)...
Done.

13. Log off.

Wrap-up

When you see the message "Cataloging fonts (this may take a while)...Done," you have completed this procedure. Proceed as follows:

- If your printing option is an 8040 Series Electronic Printer, consider the paper size you want for the top and bottom trays. To change them from the current settings (8.5" x 11" in each

tray), see the “Changing paper handling options” procedure in the *Services Maintenance Guide*. See the quick-reference cards and printer labels accompanying your printer. They provide instructions for loading paper, adding dry imager, and clearing paper jams. See the *Services Maintenance Guide* for the procedures to maintain your Print Service.

- If your printing option is a Laser CP Electronic Printer, see the quick-reference cards, printer labels, or instruction manual accompanying your printer. They provide instructions for loading paper, adding dry imager, and clearing paper jams. See the *Services Maintenance Guide* for the procedures to maintain your Print Service.
- If your printing option is a Telecopier 495-1, perform the “Setting the switches on the Telecopier 495-1” procedure next.
- If your printing option is a Formatting Print Service, perform the “Setting the Target Print Service” procedure next.

Examples

This screen shows loading test patterns and fonts from cartridge tape using an 8090 server running software version 11.0. A **Y** response is given to install fonts that are new, newer, or larger versions. An **N** response is given to install fonts that are the same or older versions.

PS!Stop Printing

Please enter reason: **Install fonts**
 Stopping printing...
 Done.

PS!Install Fonts and Test Patterns

Select installation source
 1 Local device
 2 Remote directory
 Enter choice number: **1**
 Confirm each file? (Y/N): **Y**
 Installing from: Xerox Required Fonts (300 DPI)
 CAM.interpress ... file not found on server disk.
 Install new file of 28-May-87 16:44:32 (Y/N): **Y**
 AlignmentPattern.interpress ... file of 28-May-87 13:22:45 found on server disk.
 Install same file of 28-May-87 13:22:45? (Y/N): **N**
 Xerox.Graphics.Newvec ... file of 24-Apr-86 15:29:40 found on server disk.
 Install newer file of 28-Apr-86 12:32:21? (Y/N): **Y**
 Xerox.XC1-1-1.Modern ... file of 15-May-87 18:36:28 found on server disk.
 Install larger file of 25-Jan-87 12:08:08? (Y/N): **Y**
 Xerox.XC1-1-1.Classic ... skipped (software option for this font is not enabled).
 Xerox.XC1-1-1.Terminal ... file of 15-May-87 10:20:45 found on server disk.
 Install older file of 20-Apr-86 22:30:45? (Y/N): **N**
 Xerox.XC1-1-1.Terminal.Bold ... file not found on server disk.
 Install new file of 20-Jun-87 8:23:16? (Y/N): **Y**
 Xerox.XC1-1-1.Titan.Printwheel ... skipped (software option for this font is not enabled).
 Xerox.XC1-1-1.Trojan.Printwheel ... skipped (software option for this font is not enabled).
 4 files, 2644 disk pages installed.

PS!Start Printing

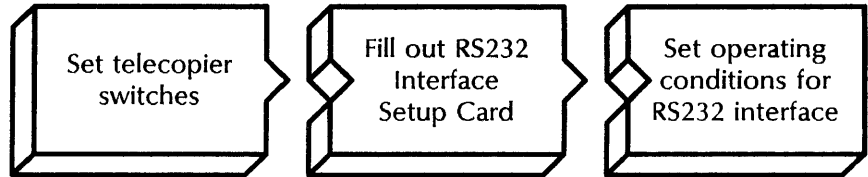
Printing stopped by: John Miller Reason: Install fonts
 Please confirm Start Printing (Y/N): **Y**
 Starting printing...
 PS: Cataloging fonts (this may take a while)...
 Done.

PS!

This screen shows loading test patterns and fonts from floppy disks using an 8000 server running software version 10.0, 10.2, or 10.3.

```
PS!Stop Printing
  Please enter reason: Install fonts
  Stopping printing...
  Done.
PS!Install From Floppy
  Install from Floppy: Xerox Required Fonts (300 DPI) (Y/N): Y
    File version on floppy: 21-Nov-87 11:29:09
  Install (New) CAM.interpress (Y/N): Y
  Installing CAM.interpress...
    done.
    File version on floppy: 29-Oct-87 14:32:51
  File version on Print Server: 25-Sep-87 16:11:19
  Install (Newer) Xerox.Graphics.Newvec (Y/N): Y
  Installing Xerox.Graphics.Newvec...
    done.
    File version on floppy: 22-Mar-87 10:33:21
  File version on Print Server: 20-Jun-87 12:30:55
  Install (Older) Xerox.XC1-1-1.Modern (Y/N): N
    File version on floppy: 14-Aug-87 22:09:45
  File version on Print Server: 14-Aug-87 22:09:45
  Install (Same Version) Xerox.XC1-1-1.Modern.Bold (Y/N): N
    File version on floppy: 13-Dec-87 15:48:42 14:32:51
  File version on Print Server: 27-May-87 18:17:35
  Install (Newer) Xerox.XC1-1-1.Modern.Bold.Italic (Y/N): Y
  Installing Xerox.XC1-1-1.Modern.Bold.Italic...
    done.
  3 file(s) installed from Xerox Required Fonts (300 DPI).
PS!Start Printing
  Printing stopped by: John Miller Reason: Install fonts
  Please confirm Start Printing (Y/N): Y
  Starting printing...
PS: Cataloging fonts (this may take a while)...
  Done.
PS!
```

Setting the switches on the Telecopier 495-1 (versions 10.0 through 10.3 only)



Use this procedure to configure the initial operating conditions for the RS232C interface between the Telecopier 495-1 and the server in part by setting switches. The RS232 Interface Setup Card provided with your telecopier also determines operating conditions.

Prerequisites

- Find the RS232 Interface Setup Card that came with your Telecopier 495-1.
- Have handy a narrow, blunt object such as a small screw driver or a ballpoint pen.
- Be able to get behind the Telecopier 495-1.

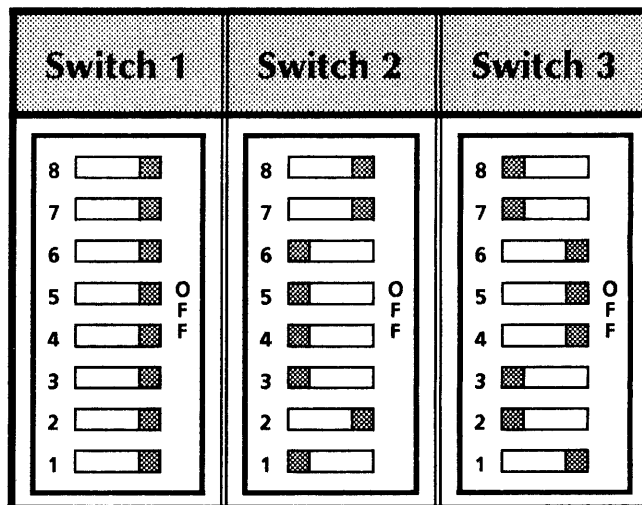


WARNING: To avoid hurting yourself or the equipment, do not tilt the telecopier or try to bend over it.

Step-by-step

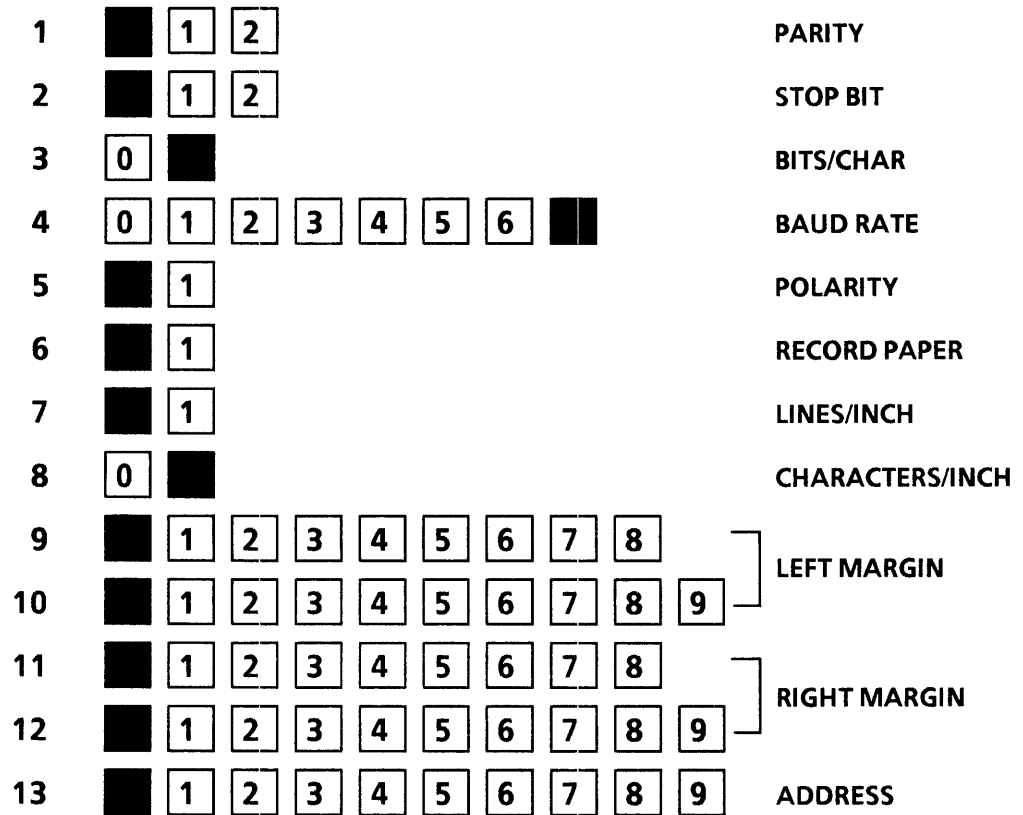
1. Find the switches on the rear of the Telecopier 495-1. They are located on the left as you face the rear of the telecopier.
2. Set the switches as shown in Figure 5-1. Using a small screw driver or a ballpoint pen with the point retracted, "slide" each switch contact fully into position.

Figure 5-1. Telecopier 495-1 switch settings



- Fill out the items in the upper left corner on the RS232 Interface Setup Card as shown in Figure 5-2. Items 5-12 are formatting parameters you can change.

Figure 5-2. RS232 Interface Setup Card parameters



- Insert the RS232 Interface Setup Card into the telecopier and press SEND.
This sets the initial operating conditions for your RS232 interface. The telecopier produces a printout of the status and a record of the parameters set.
- Keep the card with the Telecopier 495-1 for future use.

Wrap-up

When you complete this procedure, your Telecopier 495-1 switches and operating conditions for RS232 interface are properly set. Perform the "Setting the Telecopier 495-1 clock" procedure next.

Setting the Telecopier 495-1 clock (versions 10.0 through 10.3 only)

Use this procedure to set the internal clock of the Telecopier 495-1 to the current time of the server.

Step-by-step

1. Enter the Print Service context.
2. Type **Start Diagnostic** ↵.

```
Please confirm (Y/N):
```

3. Type **Y** at the "Please confirm" prompt ↵.
 - Y** Continues the process.
 - N** Cancels the process.

```
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number:
```

4. Type **4** for the "Set Telecopier 495-1 clock to current time" option ↵.

```
Set Telecopier 495-1 clock...done. Time set to <Date >
<Time >.
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number:
```

5. Type **1** for the "Exit" option ↵.

Wrap-up

If you are unable to set the Telecopier 495-1 clock, a message appears indicating the reason for the failure. Record the failure message on the Print Service Activity Log in the *Activities Guide*. Then perform the procedure again after you have corrected the problem.

Perform the "Testing communication from the server to the printer" procedure next.

Example

This screen shows setting the Telecopier 495-1 clock to the current time of the server.

```
PS > Start Diagnostic
Please confirm (Y/N): Y
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number: 4

Set Telecopier 495-1 clock...done. Time set to 24-Apr-88 13:55.
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number: 1
PS >
```

Testing communication from the server to the printer (versions 10.0 through 10.3 only)

Use this procedure to verify communication from the server to the printer. This procedure runs part of the Telecopier 495-1 internal self test, which takes about 60 seconds.

You can run the entire self test by pressing STOP and LIGHT ORIG. TEST simultaneously on the Telecopier 495-1. If the display panel changes to 0 or to the time of day, the test completed successfully.

Prerequisite

Ensure that the Telecopier 495-1 is not in use when you run this test.

Step-by-step

1. Enter the Print Service context.
2. Type **Start Diagnostic**

Please confirm (Y/N):

3. Type **Y** at the "Please confirm" prompt .
Y Continues the process.
N Cancels the process.

```

Select From...
1  Exit
2  RS232 loopback test
3  Telecopier 495-1 internal self test
4  Set Telecopier 495-1 clock to current time
Enter choice number:

```

4. Type **3** for the "Telecopier 495-1 internal self test" option .

```

Telecopier 495-1 internal self test... <passed or failed> .
< Reason for failure >
Select From...
1  Exit
2  RS232 loopback test
3  Telecopier 495-1 internal self test
4  Set Telecopier 495-1 clock to current time
Enter choice number:

```

5. Type **1** for the "Exit" option .

Wrap-up

When the internal self test passes, you have completed the setup procedures for the Telecopier 495-1.

- See the quick-reference cards, telecopier labels, or instruction manual accompanying your printer. They provide instructions on loading paper, and clearing paper jams.
- See the *Services Maintenance Guide* for the procedures to maintain your Telecopier 495-1.

If the internal self test fails, record the failure message on the Print Service Activity Log. Then perform the procedure again after you have corrected the problem.

If you receive an error code when running the entire self test, record the error code. See the operator manual accompanying your telecopier for a list of error codes and recovery procedures.

Example

This screen shows testing communication from the server to the printer by running the internal self test.

```
PS> Start Diagnostic
Please confirm (Y/N): Y
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number: 3
Telecopier 495-1 internal self test...passed.
Select From...
1 Exit
2 RS232 loopback test
3 Telecopier 495-1 internal self test
4 Set Telecopier 495-1 clock to current time
Enter choice number: 1
PS>
```

Setting the Target Print Service (versions 10.0 through 10.3 only)

Use this procedure to set the Target Print Service that will receive documents from your Formatting Print Service. The Formatting Print Service automatically retrieves the current paper handling properties from the Target Print Service.


The Formatting Print Service may reject network print requests if it does not have the current Target Print Service paper handling properties. For example, the Formatting Print Service rejects a request to print on legal size paper if the Target Print Service parameter is set for letter size only.

If the Target Print Service is not available when the Formatting Print Service tries to retrieve the paper handling properties, a warning appears and the properties default to letter size paper (8.5 x 11 inches), no stapling, and single-sided printing.

Prerequisites

- The Target Print Service you specify must be connected to the network and registered in the Clearinghouse.
- See the Print Service Worksheet in your *Activities Guide* for the name or network address of the Target Print Service.

Step-by-step

1. Log on and enable in the Print Service context.
2. Type **Set Target Print Service** .

Enter Clearinghouse name or network address:

3. Type the Target Print Service name or network address \leftarrow .

Done.

NOTE

If a warning message appears that the Target Print Service is unavailable, use the **Query Target Print Service** command later to get the parameters from the Target Print Service.

4. Log off.

Wrap-up

When you see the message "Done," you have set the Target Print Service and completed the setup procedures for this printing option. Refer to the *Services Maintenance Guide* for the procedures to maintain your Formatting Print Service.

Example

This screen shows setting the Target Print Service specifying the Clearinghouse name, Target9700:Home Office:ABC Company.

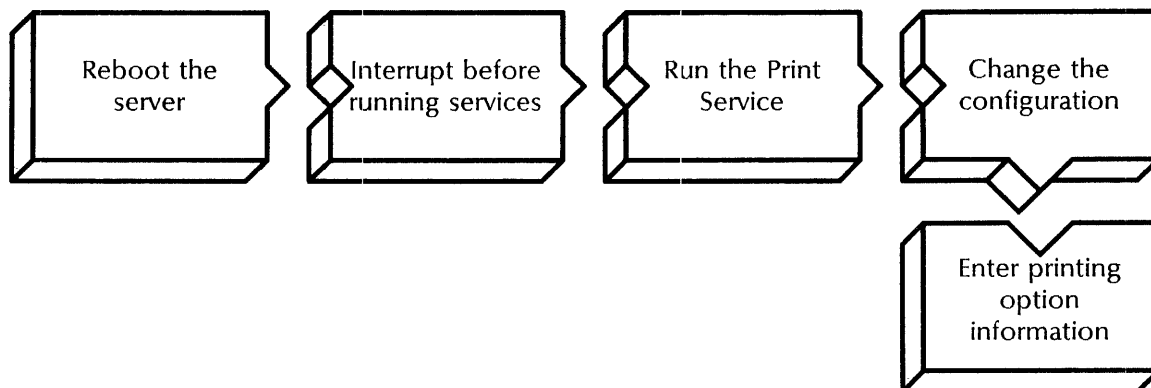
PS! Set Target Print Service

Enter Clearinghouse name or network address: **Target9700:Home Office:ABC Company**

Done.

PS!

Changing the printing option



Use this procedure to change the printing option or the 8040 printer version (B1 or B2) if a different kind of printer has been connected to the server. Changing the printing option deletes fonts and test patterns previously installed, if they are not compatible with the new printing option.



CAUTION: Do not select a new printing option at startup when uncompleted documents are still in the queue. Otherwise, you risk unpredictable results when the documents are processed.

Prerequisites

- If you are changing the printing option to support an 8040 Series or Laser CP Electronic Printer, know when to use the complex printing and slow page printing features. See “Planning for setup” in the Print Service chapter of the *Guide to System Administration Activities* if you need more information.
- See the Print Service Worksheet in your *Activities Guide* for the following information:
 - Whether you have a B1 or B2 version printer, if you are changing the printing option to support an 8040 Series Electronic Printer
 - The transmission resolution, if you are changing the printing option to support a Telecopier 495-1 Printer
- Update the Print Service Worksheet with any changes you are making to the printing option.

Step-by-step

1. Reboot the server.
 - a. Hold down the Boot Reset (B RESET) and Alternate Boot (ALT B) buttons at the same time.
 - b. Release the Boot Reset (B RESET) button.
 - c. When the maintenance panel displays 0001, release the Alternate Boot (ALT B) button.

Normal Startup? (Y/N):

2. Type **N** at the "Normal Startup" prompt .

 - Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions, and displays the interrupt points available.

Enter interrupt point
 1 Interrupt before opening primary volume
 2 Interrupt before processing profile
 3 Interrupt before running services
 Enter one or more choices:

3. Type **3** for the "Interrupt before running services" option .
4. Log on and enable.
5. Type **Run Service** .

Select choices
 1 Print Service
 Enter one or more choices:

6. Type the number for the "Print Service" option .

PS: Normal Startup? (Y/N):

7. Type **N** at the "PS: Normal Startup" prompt .

 - Y** Completes the initialization process.
 - N** Interrupts the initialization process to perform special functions, and displays the non-normal startup options.

Running Print Service
 Specify non-normal startup options
 1 Change configuration
 2 Stop queuing and printing
 3 Delete backing files
 Enter one or more choices:

8. Type **1** for the "Change configuration" option .

Specify printing option
 1 <printing option >
 2 <printing option >
 Enter choice number:

9. Type the number for the printing option you want .

Any fonts installed for <printing option> will be deleted. Please confirm that printing option be changed to <printing option> (Y/N):

10. Type **Y** to confirm the new printing option .

Y Confirms the option.

N Cancels the prompt.

If you selected the 8040 Series Electronic Printer, **continue with step 11**. If you selected the Laser CP Electronic Printer, **skip to step 12**. If you selected the Formatting Print Service, **skip to step 16**. If you selected the Telecopier 495-1, **skip to step 14**.

Specify printer version

1 B1

2 B2

Enter choice number:

11. If you selected the 8040 Series Electronic Printer, type the number for your printer version .

Reserve extra disk pages for complex printing (required for scanned images)? (Y/N):

12. You see the above prompt only if you selected the 8040 Series or the Laser CP printer, and if your server has sufficient resources. Type **Y** or **N** and press RETURN. Otherwise, **skip to step 16**.

Y Enables the complex printing and slow page printing features and reserves the required disk space. **Skip to step 16**.

N Does not enable the complex printing feature. **Continue with step 13**.

Enable slow page printing as needed to avoid printing gaps (uses extra disk pgs)? (Y/N):

13. Type **Y** or **N** at the enable slow page printing prompt .

Y Enables the slow page printing feature.

N Does not enable the slow page printing feature. **Skip to step 16**.

Specify 495-1 paper width supported

1 8.5 inches (216 mm)

2 210 mm (8.3 inches)

Enter choice number:

14. If you selected the Telecopier 495-1, type the number for the paper width supported .

8.5 inches - allows printing of letter or legal size documents.

210 mm - allows printing of A4 size documents.

Specify 495-1 transmission resolution supported

1 Standard

2 Fine

Enter choice number:

15. Type the number for the transmission resolution supported .

Print Service run.

16. After Print Service initialization completes, type **Proceed** and press RETURN to complete server initialization.

Wrap-up

When you complete this procedure, you see the "!" prompt. Next, perform the setup procedures in this chapter for the new printing option. If you need to load required fonts and test patterns, start with the "Loading fonts and test patterns onto your Print Service" procedure. Continue as indicated in each Wrap-up section.

Example

This screen shows changing the printing option to support an 8040 Series Electronic Printer, steps 5-16. The server is running software version 11.0.

!Run Service

Select choices

1 Print Service

Enter one for more choices: **1**

PS: Normal Startup? (Y/N): **N**

Running Print Service

Specify non-normal startup option

1 Change configuration

2 Stop queuing and printing

3 Delete backing files

Enter one or more choices: **1**

Specify printing option

1 8040 Series Electronic Printer

2 Laser CP Electronic Printer

Enter choice number: **1**

Any fonts installed for Laser CP Electronic Printer will be deleted.

Please confirm that printing option be changed to 8040 Series Electronic Printer (Y/N): **Y**

Specify printer version

1 B1

2 B2

Enter choice number: **2**

Reserve extra disk pages for complex printing (required for scanned images)? (Y/N): **N**

Enable slow page printing as needed to avoid printing gaps (uses extra disk pgs)? (Y/N): **Y**

Validating Clearinghouse entry for: Daily:Chicago:GemSysCo

Done

PS: Cataloging fonts (this may take a while)...

Print Service run.

!Proceed

!

This chapter contains the procedures for setting up the File Service after you install the software. These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any File Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Have handy the File Service Worksheet and the File Drawer Worksheet which list the information you need during setup. You filled out these worksheets as you read the *Guide to System Administration Activities* and placed the completed copies in the *Activities Guide*.
- Know whether the File Service is running on a single-drive or a multiple-drive server.

Commands

This section lists the commands you use to set up the File Service. You can access these commands from the File Service context.

Table 6-1 shows the File Service setup commands along with the logged on status and the service state (started or stopped) for accessing the command.

Table 6-1. **File Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add File Drawer					•	•
Create Volume (SSS)					•	
Online Volume					•	•

Add File Drawer Available to the enabled user when the File Service is started or stopped. Creates a new file drawer, sets its page limit, and optionally, assigns access rights.

Related procedures: Creating private file drawers for users, Creating public file drawers for users

Create Volume Available to the enabled user on multiple-drive servers when the File Service is started. This Services System Software command initializes a new volume. The volume must be available but not open. This command is also available at the first interrupt point for creating a new primary volume.

Related procedure: Initializing secondary volumes

Online Volume Available to the enabled user when the File Service is started or stopped. Registers the volume with the appropriate Clearinghouse Service. Makes the volume accessible to network users if the File Service is started.

Related procedures: Initializing secondary volumes

Procedures

This section contains these procedures for setting up your File Service:

Initializing the primary volume

Use this procedure to name the primary volume on single-drive and multiple-drive servers.

Initializing secondary volumes

Use this procedure to name secondary volumes on multiple-drive servers.

Creating private file drawers for users

Use this procedure to add private file drawers for individual users.

Creating public file drawers for users

Use this procedure to add public file drawers for users to share.

Perform these procedures in the order they appear in this chapter.

Initializing the primary volume

Use this procedure to name, describe, and register the primary volume of the File Service on single-drive and multiple-drive servers.

Prerequisite

See the File Service Worksheet in your *Activities Guide* for the name and description of the File Service.

Step-by-step

Enter service name:

1. Immediately after installing and running the File Service, type the local name of the File Service volume and press RETURN. (The domain and organization default to those of the server.)

Enter service description:

2. Type a description of the File Service volume and press RETURN. If you do not want to enter a description, simply press RETURN.

NOTE

The description may be the location of the server, the department, or other identifying information.

Confirm (Y/N):

3. Type **Y** at the "Confirm" prompt ↵.
 - Y** Registers the volume in the Clearinghouse.
 - N** Cancels the process. Return to step 1.

```
Validating Clearinghouse entry for: < File Service
name:domain:organization >
A new Clearinghouse entry was created
Done
Validating User Desktops...
No desktops found.
Volume online.
!
```

Wrap-up

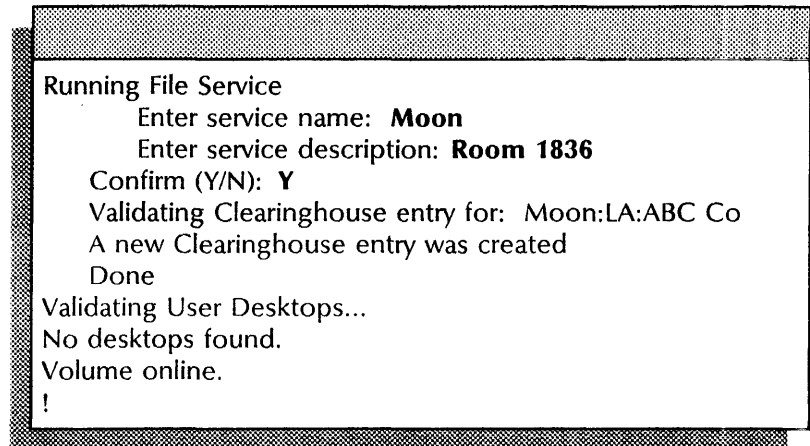
When you see the message "Volume online," you have initialized the primary volume. The File Service registers itself with the Clearinghouse Service, making the File Service accessible to network users.

If you have a multiple-drive server, perform the "Initializing secondary volumes" procedure next.

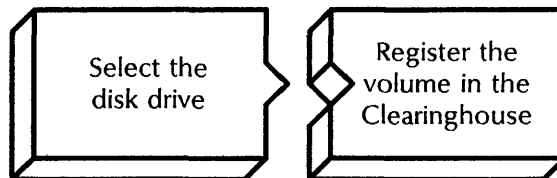
If you have a single-drive server, perform the "Creating private file drawers for users" procedure next.

Example

This screen shows initializing a File Service that is installed and running. The File Service name is Moon:LA:ABC Co.



Initializing secondary volumes



Use this procedure to name and register secondary volumes on multiple-drive servers.

Prerequisites

- Have a multiple-drive server or a drive with removable disk packs.
- Format and partition each secondary drive or removable disk pack you plan to use except for the following:



CAUTION: Do NOT reformat or repartition secondary drives or disk packs that contain software, or you will destroy the contents.



CAUTION: Do NOT format a 300 Mb fixed rigid disk drive because the bad page table will be erased. The disk is already formatted.

See the "Formatting and partitioning a removable disk pack" procedure in the File Service chapter of the *Backup and Restore Guide* or "Step 3. Partitioning the server disk" in the Server Software Installation chapter earlier in this book.

- If you have a drive with removable disk packs, have the disk pack spinning in the drive. See the “Loading a removable disk pack” and “Unloading a removable disk pack” procedures in Appendix A of the *Services Maintenance Guide*.
- See the File Service Worksheet in your *Activities Guide* for the name of each File Service volume you are creating.

Step-by-step



1. Log on and enable in the File Service context.

CAUTION: The **Create Volume** command deletes all data stored on the volume and leaves the volume in the open state.

2. Type **Create Volume** \leftarrow .

Drive (1..4):

3. Type the drive number \leftarrow .

WARNING: This operation will destroy all previous contents.
Volume name:

4. Type the local name of the volume and press RETURN. (The domain and organization default to those of the server.)

Creating volume...
Done
FS!

5. Repeat steps 2 through 4 for each secondary volume (removable disk pack or rigid disk) you want to initialize.
6. Type **Online Volume** and press RETURN. A list of open and offline volumes appears.

Select Volume
1 <volume name >
Enter choice number:

7. Type the number for the volume you want to bring online \leftarrow .


```

Bringing drive < # > online...
  Validating Clearinghouse entry for < volume name >
  A new Clearinghouse entry was created.
  Done
Validating User Desktops...
No desktops found.
Volume online.
FS!

```

NOTE

The File Service tries to open secondary volumes on a multiple-drive server and bring them online. If the File Service cannot open a volume, the message "Volume online" does not appear. In this case, use the **Open Volume** command. This Services System Software command displays a message such as "Drive not ready" or "Duplicate volume name" to help you determine why the operation failed.

Wrap-up

When you see the message "Volume online," you have initialized the secondary volume. The File Service registers itself with the Clearinghouse Service, making the File Service accessible to network users.

Next, perform the "Creating private file drawers for users" procedure.

Example

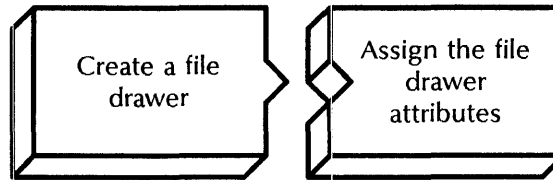
This screen shows creating a secondary File Service volume and registering it with the Clearinghouse.

```

FS!Create Volume
  Drive (1..4): 2
  WARNING: This operation will destroy all previous contents.
  Volume name: Planning
  Creating volume...
  Done
FS!Online Volume
  Select Volume
  1 Planning
  Enter choice number: 1
Bringing drive 2 online...
  Validating Clearinghouse entry for Planning:LA:ABC Co
  A new Clearinghouse entry was created.
  Done
Validating User Desktops...
No desktops found.
Volume online.
FS!

```

Creating private file drawers for users



Use this procedure to create private file drawers for individual users. You must create file drawers on an open volume; the volume can be either online or offline. You cannot use the wildcard symbol (*) in file drawer or owner names.

Prerequisites

- The owner must be a registered user in the Clearinghouse.
- See the File Drawer Worksheet in your *Activities Guide* for the following information:
 - The file drawer name and the owner's name
 - The file drawer page limit

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Add File Drawer** .

```

Select Volume
1  <volume name >
2  <volume name >
Enter choice number:
  
```

3. If the File Service is running on a single-drive server, **skip to step 4**. If the File Service is running on a multiple-drive server, type the number for the volume you want .

```
File drawer name:
```

4. Type the name of the file drawer and press RETURN. The name may be up to 100 characters long, and must be different from all other file drawer names on the volume.

```
Owner's name:
```

5. Type the name of the file drawer owner and press RETURN. Unless you specify the domain and organization, they default to those of the server. The owner has full access to the drawer by default.

Page limit (type 0 for no limit) (0..2147483647):

6. Type the number of disk pages you want to assign to the drawer .

<name:domain:organization> is granted full access.
Change Access List? (Y/N):

7. Type **N** at the "Change Access List" prompt .
- Y** Lets you create an access list for a public file drawer.
N Completes the process.

Done
FS!

8. Repeat steps 2 through 7 for each file drawer you want to create.
9. Log off.

Wrap-up

When you see the message "Done," you have created a file drawer. If you need to create group file drawers, see the "Creating public file drawers for users" procedure next. If you do not need to create public file drawers, add a backup file drawer and set the backup parameters next. See the File Service chapter of the *Backup and Restore Guide* for more information.

Example

This screen shows adding a private file drawer for Debbie M. Jansen. The File Service is running on a multiple-drive server. The domain and organization are Unit 3:Acme. The page limit is 0, which sets no page limit.

FS!Add File Drawer

Select Volume

1 Finance

2 Planning

Enter choice number: **1**

File drawer name: **Jansen**

Owner's name: **Debbie M. Jansen**

Page limit (type 0 for no limit) (0..2147483647): **0**

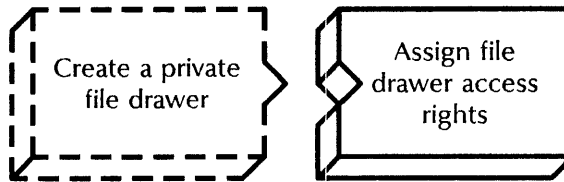
Debbie M. Jansen:Unit 3:Acme is granted full access.

Change Access List? (Y/N): **N**

Done

FS!

Creating public file drawers for users



Use this procedure to create public file drawers for users to share. You must create file drawers on an open volume; the volume can be either online or offline. You cannot use the wildcard symbol (*) in drawer and owner names, but you can use it when specifying access list entries.

Prerequisites

- The owner must be a registered user in the Clearinghouse.
- See the File Drawer Worksheet in your *Activities Guide* for the following information:
 - The file drawer name and the owner's name
 - The file drawer page limit
 - The fully qualified name of the users or group having access to the file drawer
 - The access rights for the users or group

Step-by-step

1. Perform steps 1 through 6 of the "Creating private file drawers for users" procedure.

Change Access List? (Y/N): N

2. Type **Y** at the "Change Access List?" prompt **↵**.
 - Y** Lets you assign access rights to a public file drawer.
 - N** Does not let you assign access rights.

Enter User, Alias, or Group Name:

3. Type the fully qualified name of the group you want to have access to this file drawer. You may use the wildcard symbol (*).

Adding new name to access list
Permission to read? (Y/N):

4. Type **Y** or **N** at the "Permission to read" prompt **↵**.
 - Y** Lets users read the files in the drawer.
 - N** Prevents read access.

Permission to write? (Y/N):

5. Type **Y** or **N** at the "Permission to write" prompt .
- Y** Lets users write to the files in the drawer.
- N** Prevents write access.

Permission to add? (Y/N):

6. Type **Y** or **N** at the "Permission to add" prompt .
- Y** Lets users add files to the drawer.
- N** Prevents add access.

Permission to remove? (Y/N):

7. Type **Y** or **N** at the "Permission to remove" prompt .
- Y** Lets users remove files from the drawer.
- N** Prevents remove access.

Permission to change the access list? (Y/N):

8. Type **Y** or **N** at the "Permission to change the access list" prompt .
- Y** Lets users change the access list.
- N** Prevents users from making changes.

Make another change to access list? (Y/N):

9. Type **Y** or **N** at the "Make another change to access list" prompt .
- Y** Lets you make additional access list entries; return to step 3.
- N** Completes the process.

Done
FS!

10. Repeat steps 1 through 9 for each public file drawer you want to create .
11. Log off .

Wrap-up

When you see the message "Done," you have created a public file drawer.

Now add a backup file drawer and set backup parameters. See the File Service chapter of the *Backup and Restore Guide* for more information.

Example

This screen shows creating a public file drawer using the wildcard symbol (*). The File Service is running on a multiple-drive server. The file drawer name is Documentation. The owner of the file drawer is Debbie M. Jansen. The domain and organization are Unit 3:Acme. The page limit is 0, which sets no limit. Read, write, add, and remove rights are granted to all users in the group.

```
FS!Add File Drawer
Select Volume
1 Finance
2 Planning
Enter choice number: 1
File drawer name: Documentation
Owner's name: Debbie M. Jansen:Unit 3:Acme
Page limit (type 0 for no limit) (0..2147483647): 0
Debbie M. Jansen:Unit 3:Acme is granted full access.
Change Access List? (Y/N): Y
Enter User, Alias, or Group Name: *:Unit 3:Acme
Adding new name to access list
  Permission to read? (Y/N): Y
  Permission to write? (Y/N): Y
  Permission to add? (Y/N): Y
  Permission to remove? (Y/N): Y
  Permission to change the access list? (Y/N): N
Make another change to access list? (Y/N): N
Done
FS!
```

This chapter contains the procedures you perform to set up the PC File Service (PCFS). These procedures are available using an 8000 or an 8090 server.



The term *directory* is used throughout this chapter to represent file drawers or folders.

Prerequisites

Complete these tasks before you perform any PC File Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Have handy the PC File Service Worksheet, which lists the information you need during setup. You filled out this worksheet as you read the *Guide to System Administration Activities*, and placed the completed copy in the *Activities Guide*.

Commands

This section lists alphabetically the commands you use to set up the PC File Service. You must be in the PC File Service context to access these commands.

Table 7-1 shows the PC File Service setup commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 7-1. **PC File Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Directory					•	•
Add Net Share					•	•

Add Directory Available to the enabled user. Creates directories on the PC File Service volume for use by PC clients (networked PC users). The directory may be a top-level directory (file drawer), or a subdirectory (folder).

Related procedure: Creating directories for PC clients

Add Net Share Available to the enabled user. Adds a filing resource (a directory and all the files within it) to the list of network resources available for use by PC clients (networked PC users).

Related procedure: Adding network resources

Procedures

This section contains these procedures for setting up the PC File Service:

Initializing the primary volume

Use this procedure to initialize the volume that runs the PC File Service software. This procedure is required for single-drive and multiple-drive servers.

Initializing secondary volumes

Use this procedure to initialize secondary volumes that may be assigned to the PC File Service. Perform this procedure only if you have a multiple-drive server.

Creating directories for PC clients

Use this procedure to create directories. If the new directory is a descendent directory, the parent directories must already exist.

Adding network resources

Use this procedure to add filing resources to the network.

Follow the procedures in the order they appear in this section.

Initializing the primary volume

Use this procedure to initialize the volume that runs the PC File Service software.

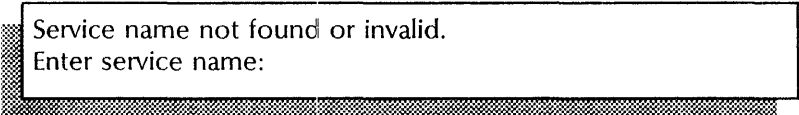
Prerequisites

See the PC File Service Worksheet in your *Activities Guide* for the following information:

- The name of the PC File Service

Step-by-step

1. Install and run the PC File Service as described in the Server Software Installation chapter in this book.



Service name not found or invalid.
Enter service name:

2. Type the service name of your PC File Service and press RETURN. You can use up to 15 valid ASCII characters (A-Z 0-9 !@#\$%^&()_-{}~`') for the PC File Service name. Do not use commas, parentheses, asterisks, or pound signs in a service name.

Wrap-up

When you see the message "Done," you have initialized the primary volume.

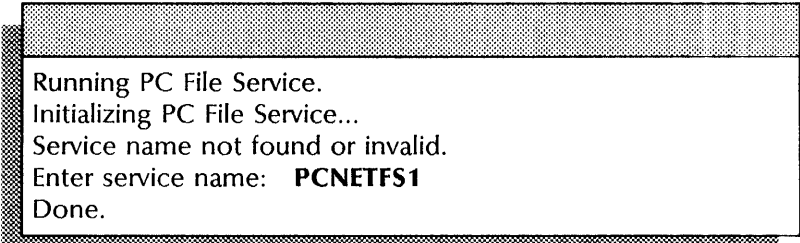
If you have a single-drive server, you now create directories for use by PC clients. Perform the "Creating directories for PC clients" procedure later in this chapter.

If you have a multiple-drive server with secondary volumes that have been initialized, you now create directories for use by PC clients. Perform the "Creating directories for PC clients" procedure later in this chapter.

If you have a multiple-drive server with secondary volumes that have not been initialized, you now initialize the secondary volumes. See the "Initializing secondary volumes" procedure, next.

Example

This example shows initializing the PC File Service named PCNETFS1.



```
Running PC File Service.  
Initializing PC File Service...  
Service name not found or invalid.  
Enter service name: PCNETFS1  
Done.
```

Initializing secondary volumes

Use this procedure to initialize secondary volumes on a multiple-drive server. Do not use this procedure if secondary volumes have been initialized through a coresident File Service.

Prerequisites

- See the PC File Service Worksheet in your *Activities Guide* for the following information:
 - The name of each secondary volume
- Have a multiple-drive server or a drive with removable disk packs.
- Partition the disk as described in the Server Software Installation chapter earlier in this book.
- If you have a drive with removable disk packs, have the disk pack formatted and spinning in the drive. See the Server Software Installation chapter earlier in this book.



CAUTION: If you are using a 300 Mb rigid disk drive, do not format the disk. Your disk is already formatted.

Step-by-step


1. Log on and enable in the PC File Service context.



CAUTION: The **Create Volume** command deletes all data stored on the volume and leaves the volume in the open state.

2. Type **Create Volume** .

Drive (1..4):

3. Type the drive number .

WARNING: This operation will destroy all previous contents.
Volume name:

4. Type the local name of the secondary volume.

Creating volume...
Done
PCFS!

5. Repeat steps 2 through 4 for each secondary volume (removable disk pack or rigid disk) you want to initialize.



The File Service (if coresident with the PC File Service) tries to open secondary volumes on a multiple-drive server and bring them online. If the File Service cannot open a volume, the message "Volume online" does not appear. In this case, use the **Open Volume** command to display a message such as "Drive not ready" or "Duplicate volume name" to help you determine why the operation failed.

Wrap-up

When you see the message "Done," you have initialized the secondary volume.

Now you create directories for use by PC clients. Perform the next procedure, "Creating directories for PC clients."

Example

This example shows creating a secondary PC File Service volume named Planning.

```
PCFS!Create Volume
Drive (1..4): 2
WARNING: This operation will destroy all previous contents.
Volume name: Planning
Creating volume...
Done.
PCFS!
```

Creating directories for PC clients



Use this procedure to create a directory for use by PC clients. All directories in the path to this new directory must already exist.

Prerequisites

- Initialize the PC File Service as described in the “Initializing the primary volume” and “Initializing secondary volume” procedures.
- Make sure the volume is in an open state or is online. Use the **List Volume** command to display volume status.
- See the PC File Service Worksheet in your *Activities Guide* for the following information:
 - The complete pathname of the new directory

Step-by-step

1. Log on and enable in the PC File Service context.
2. Type **Add Directory** .

```
Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:
```

3. If the PC File Service is running on a multiple-drive server, type the number for the volume and press RETURN. If the PC File Service is running on a single-drive server, **skip to step 4**.

```
Please enter the directory pathname in Xerox form.
Directory pathname:
```

4. Type the complete pathname of the new directory and press RETURN. Use a slash to separate the name of each directory level.

Wrap-up

When you see the message “Done,” you have created a new directory under an existing volume. To make this new directory accessible to PC clients, perform the next procedure, “Adding network resources.”

Example

This example shows creating a subdirectory named Receivable under the directory named Account on a multiple-drive server.

PCFS!Add Directory

Select Volume

1 Finance

2 Planning

3 Correspondence

Enter choice number: **1**

Please enter the directory pathname in Xerox form.

Directory pathname: **Account/Receivable**

Done.

PCFS!

Adding network resources



Use this procedure to add directories to the list of resources available to PC clients. You must specify the name of the directory and its access rights, but a password and a short name are optional.



The term subtree used throughout this procedure represents a network resource (a directory and all its subdirectories and files).

Prerequisites

- See the PC File Service Worksheet in your *Activities Guide* for the following information:
 - Complete pathname of the directory you want to make available
 - Optional short name and password, and required access rights for the directory
- Make sure the directory already exists (see the procedure "Creating directories for PC clients").

Step-by-step

1. Log on and enable in the PC File Service context.
2. Type **Stop Services** ↵.

Enter one or more choices:

3. Type the number for the PC File Service option ↵.

PCFS: Stop immediately? (Y/N): Y

4. Press RETURN to accept the default, or type **N** at the "Stop immediately" prompt ↵.
 - Y** Stops the PC File Service.
 - N** Cancels the process.
5. Type **Start Services** ↵.

Enter one or more choices:

6. Type the number for the PC File Service option ↵.
7. Type **Add Net Share** ↵.

Select Volume
 1 <volume name >
 2 <volume name >
 3 <volume name >
 Enter choice number:

8. If the PC File Service is running on a multiple-drive server, type the number for the volume and press RETURN. If the PC File Service is running on a single-drive server, **skip to step 9.**

Please enter the directory pathname in Xerox form.
Directory pathname:

9. Type the complete pathname of the resource you want to make available and press RETURN. Use a slash to separate the name of each directory level.

What should be used for the network name?
1 The directory pathname
2 A shortname
Enter choice number:

10. Type the number for the form of name you want PC clients to use to access the resource \Leftarrow . If you enter **1** and the pathname is less than eight characters, **skip to step 12.** If you enter **2** or the pathname is longer than eight characters, **continue with step 11.**

Shortname:

11. Type the short name you want PC clients to use to access the directory and press RETURN.

Subtree password (enter RETURN for no password):

12. Type the password you want PC clients to enter to access the directory and press RETURN. If you enter a password, asterisks appear in place of the password for protection.

To require no password, simply press RETURN.

Select subtree permissions
1 Read
2 Write
3 Read, Write
4 Write, Create
5 Read, Write, Create
Enter choice number:

13. Type the number for the access rights to the directory .

Confirm addition of net share? (Y/N): Y

14. Press RETURN to accept the default, or type N at the "Confirm addition of net share" prompt .

Y Adds the directory as a resource PC clients can access.

N Cancels the procedure so you can begin again.

Done. <network name> has been added.
Add another net share (Y/N): N

15. Press RETURN to accept the default, or type Y at the "Add another net share" prompt .

Y Lets you add another directory to the network resources. Return to step 8.

N Ends the procedure.

Wrap-up

When you see the message "Done," you have added network resources.

You now inform PC clients of the new resource available to them. They need to know the service name of the PC File Service, as well as the network name, access rights, and password, if applicable.

Example

This example shows making available to PC clients the Account/Receivable directory under the Finance root directory. A short name and a password are specified, and full access rights are granted to PC clients.

PCFS!Stop Services

Select choices

- 1 PC File Service
- 2 File Service

Enter one or more choices: **1**PCFS: Stop immediately? (Y/N): **Y**

Stopping PC File Service.

No Active users

PC File Service is stopped.

PCFS!Start Services

Select choices

- 1 PC File Service
- 2 File Service

Enter one or more choices: **1**

Starting PC File Service.

PC File Service starting...

Adding net shares...

PCFS!Add Net Share

Select Volume

- 1 Finance
- 2 Planning
- 3 Correspondence

Enter choice number: **1**

Please enter the directory pathname in Xerox form.

Directory pathname: **Account/Receivable**

What should be used for the network name?

- 1 The directory pathname
- 2 A shortname

Enter choice number: **2**Shortname: **AcctRec**

Subtree password (enter RETURN for no password):****

Select subtree permissions

- 1 Read
- 2 Write
- 3 Read, Write
- 4 Write, Create
- 5 Read, Write, Create

Enter choice number: **5**Confirm addition of net share (Y/N): **Y**

Done. ACCTREC has been added.

Add another net share (Y/N): **N**

PCFS!

This chapter contains the procedures to set up the Librarian Service (LS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Librarian Service setup procedures:

- Install all required software as described in the Server Software Installation chapter in this book.
- Have handy the Librarian Service Worksheet. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed a completed copy in the *Activities Guide*.

Commands

This section lists the commands you use to set up your Librarian Service. You must be in the Librarian Service context to access these commands.

Table 8-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 8-1. **Librarian Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Create Database					•	
List Databases	•		•		•	
Register Database					•	
Set Authentication Level					•	
Set Backup Path					•	
Set Readers					•	
Set Writers					•	

Create Database Available to the enabled user when the Librarian Service is started. Creates and names the Librarian Service database files.

Related procedure: Creating a Librarian Service database

List Databases Available to any user when the Librarian Service is started. Lists the names and parameters of the Librarian Service database files.

Related procedure: Listing database names and parameters

Register Database Available to the enabled user when the Librarian Service is started. Registers the name of the database with the Clearinghouse Service.

Related procedure: Creating a Librarian Service database

Set Authentication Level Available to the enabled user when the Librarian Service is started. Defines the level of authentication required for database access.

Related procedure: Setting database parameters

Set Backup Path Available to the enabled user when the Librarian Service is started. Provides the pathname to a remote backup location and specifies the number of copies to store.

Related procedure: Setting database parameters

Set Readers Available to the enabled user when the Librarian Service is started. Identifies the user or group that can view the database.

Related procedure: Setting database parameters

Set Writers Available to the enabled user when the Librarian Service is started. Identifies the user or group that can update the database.

Related procedure: Setting database parameters

Procedures

This section contains these procedures for setting up the Librarian Service:

Initializing the Librarian Service

Use this procedure to identify your service name and description, and to register the entries in the Clearinghouse.

Creating a Librarian Service database

Use this procedure to name the database and register it in the Clearinghouse.

Setting database parameters

Use this procedure to define the authentication levels, identify readers and writers, and specify the pathname to the remote backup location.

Listing database names and parameters

Use this procedure to list the database names, readers, writers, authentication level, and backup location.

Perform these procedures in the order they appear in this chapter.

Initializing the Librarian Service

Use this procedure to name and describe the Librarian Service, and register it in the Clearinghouse database.

Prerequisites

See the Librarian Service Worksheet in your *Activities Guide* for the name and description of your Librarian Service.

Step-by-step

```
Running Librarian Service.
Starting Librarian Service
Service name and description unknown.
Enter service name:
```

1. Immediately after installing and running the Librarian Service, type its local name and press RETURN. The domain and organization default to that of the server.

```
Enter service description:
```

2. Type a description for your service .

```
Confirm? (Y/N):
```

3. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the service in the Clearinghouse.
 - N** Cancels the process. Return to step 1.

```
Validating Clearinghouse entry for: <name:domain:org >
A new Clearinghouse entry was created.
Done
Librarian Service run.
```

Wrap-up

When you see the message "Librarian Service run," you have successfully registered your Librarian Service in the Clearinghouse. Now perform the procedure "Creating a Librarian Service database" next.

Example

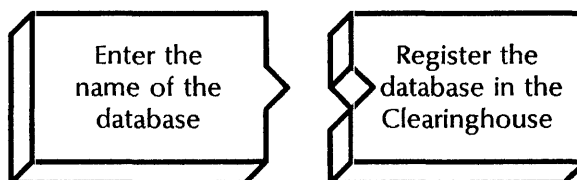
This screen shows initializing a Librarian Service for research and development.

```

Initializing Librarian Service.
Starting Librarian Service
  Service name and description unknown.
  Enter service name: ProdDev:Region1:USA
  Enter service description: research and development
  Confirm?(Y/N): Y
  Validating Clearinghouse entry for: ProdDev:Region1:USA
  A new Clearinghouse entry was created.
  Done
  Librarian Service run.

```

Creating a Librarian Service database



Use this procedure to name a database for the Librarian Service and register the name in the Clearinghouse.

Prerequisites

See the Librarian Service Worksheet in your *Activities Guide* for the name of the database.

Step-by-step

1. Log on and enable in the Librarian Service context.
2. Type **Create Database** .

Database name:

3. Type the local name of the database .

Creating '<name>' ... done.

4. Type **Register Database** .

Database name:

5. Type the local name of the database .

Registering '<name>' ... done.

Wrap-up

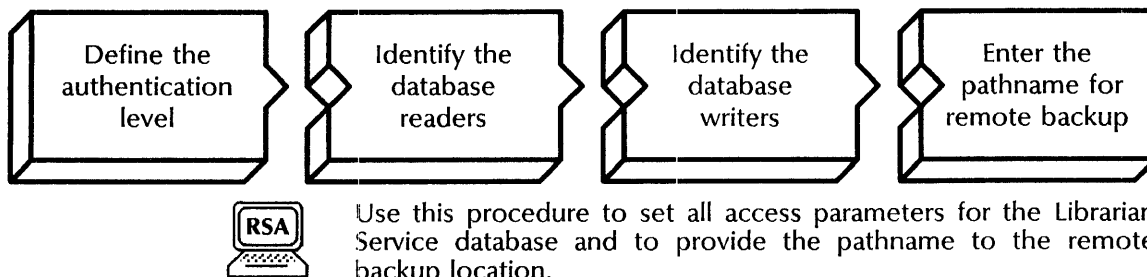
When you see the message "Registering <name> ... done," you have successfully named and registered a Librarian Service database in the Clearinghouse. Perform the "Setting the database parameters" procedure next.

Example

This example shows creating a Librarian Service database and registering it in the Clearinghouse.

```
LS!Create Database
  Database name: ProdSpecs
Creating 'ProdSpecs' ... done.
LS!Register Database
  Database name: ProdSpecs
Registering 'ProdSpecs' ... done.
LS!
```

Setting the database parameters



Prerequisites

- Add a file drawer on a remote File Service to store the backup copy of the Librarian Service database. See the procedure “Creating private file drawers for users” in the File Service chapter of this book.
 - Use a name such as LSbackup to identify its purpose
 - Enter your name as owner of the drawer; this gives you full access rights
 - Set a page limit of 5000 disk pages
 - Give the Librarian Service read, write, add, and remove access rights to the drawer
- See the Librarian Service Worksheet in your *Activities Guide* for the following information:
 - The authentication level to assign to this database
 - The individual or group to assign read access rights
 - The individual or group to assign write access rights
 - The pathname to the remote backup location

Step-by-step

1. Type **Set Authentication Level** \Leftarrow .

```

Which database?
1 <name>
Enter choice number:
  
```

2. Type the number for the database \Leftarrow .

```

LS: <name>: being loaded.
Authentication level needed for opening session
1 strong
2 simple
Enter choice number: 1
  
```

3. Type the number of the authentication level you want to assign (strong is the default) \Leftarrow .

LS!

4. Type **Set Readers** ↵.

Which database?

1 <name>

Enter choice number:

5. Type the number for the database ↵.

Group allowed to read this data base: *

6. Type the name of the individual or group you want to assign read access rights and press RETURN. Or simply press RETURN to use the wildcard character to give read access rights to all individuals.

LS!

7. Type **Set Writers** ↵.

Which database?

1 <name>

Enter choice number:

8. Type the number for the database ↵.

Group allowed to write this data base: *

9. Type the name of the individual or group you want to assign write access rights and press RETURN. Or simply press RETURN to use the wildcard character to give write access rights to all individuals.

LS!

10. Type **Set Backup Path** ↵.

Which database?

1 <name>

Enter choice number:

11. Type the number for the database ↵.

Path to back up files for this data base:

12. Type the pathname to the remote backup location ↵.

Listing database names and parameters



Use this procedure to list the name and parameters for each Librarian Service database.

Prerequisite

Know the name of the database you want to list.

Step-by-step

1. ^ Type **List Databases** .

Database name: *

2. Type the name of the database you want to list and press RETURN. Simply press RETURN to list all databases.

Verbose feedback? (Y/N): N

3. Type **Y** or **N** at the "Verbose feedback" prompt .
 - Y** Lists the name and parameters for each database; loads any unloaded database files.
 - N** Lists only the names of all databases.

Wrap-up

When you see the "LS>" or "LS!" prompt, you have listed all database names and parameters. The parameters include the size of the files, and the date and time they were last used. The list also includes the readers and writers for each database, the authentication level required for the opening session, and the backup path.

Example

This example first shows listing the name of each database, then the parameters for each database.

```
LS> List Databases
Database name: *
Verbose feedback? (Y/N): N
Research
Clippings
LS> List Databases
Database name: *
Verbose feedback? (Y/N): Y
Research
  .Records      10240    8-Dec-87  8:25:57 PST
  .HashTable    35840    8-Dec-87  8:25:58 PST
  .Log          0        8-Dec-87  8:26:40 PST
Readers: *
Writers: *
Authentication level: strong
Backup path: (FS1)California/South
Clippings
  .Records      10240    8-Dec-87  8:25:57 PST
  .HashTable    35840    8-Dec-87  8:25:58 PST
  .Log          0        8-Dec-87  8:26:40 PST
Readers: *
Writers: *
Authentication level: strong
Backup path: (FS2)California/North
LS>
```

9. External Communication Service

This chapter contains the procedures you perform to set up the External Communication Service (ECS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any External Communication Service setup procedures:

- Install all required software including communications options as described in the Server Software Installation chapter in this book. See the External Communication Service chapter of the *Guide to System Administration Activities* for the communications options requirements.
- Install all required hardware for the communications activities you are setting up. See the External Communication Service chapter in the *Guide to System Administration Activities* for the communications hardware requirements.
- Have handy the External Communications Service Worksheet which lists the information you need during setup. You filled out this worksheet as you read the *Guide to System Administration Activities*, and placed the completed copies in the *Activities Guide*.

Commands

This section lists the commands you use to set up the External Communication Service. You must be in the External Communication Service context to access these commands.

Table 9-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 9-1. **External Communication Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Communication Interface Unit						•
Add IBM 3270 Host						•
Add RS232C Port						•
Assign IBM 3270 Default Host						•
Start						•
Start IBM 3270 Emulation					•	•
Stop					•	
Stop IBM 3270 Emulation					•	•
Verify Clearinghouse Entries					•	•

Add Communication Interface Unit

Available to the enabled user when the External Communication Service is stopped. Registers Communication Interface Units (CIUs) with the External Communication Service.

Related procedure: Adding a Communication Interface Unit

Add IBM 3270 Host

Available to the enabled user when the ECS and the IBM 3270 emulation are stopped. Registers IBM 3270 hosts with the External Communication Service.

Related procedures: Adding and assigning an IBM 3270 BSC host, Adding and assigning an IBM 3270 SNA host

Add RS232C Port

Available to the enabled user when the External Communication Service is stopped. Registers RS232C ports with the External Communication Service.

Related procedures: Configuring the server port or a Multiport for asynchronous terminal emulation and dial-in, Configuring a CIU port for asynchronous terminal emulation and dial-in, Configuring the server port for IBM 3270 BSC terminal emulation, Configuring the server port or a Multiport for IBM 3270 SNA terminal emulation, Configuring a CIU port for IBM 3270 SNA terminal emulation

- Assign IBM 3270 Default Host** Available to the enabled user when the ECS and the IBM 3270 emulation are stopped. Controls the host to be accessed on a switched RS232C port.
Related procedures: Adding and assigning an IBM 3270 BSC host, Adding and assigning an IBM 3270 SNA host
- Start** Available to the enabled user when the External Communication service is stopped. Starts the External Communication Service.
Related procedures: Adding a Communication Interface Unit, Configuring the server port or a Multiport for asynchronous terminal emulation and dial-in, Configuring a CIU port for asynchronous terminal emulation and dial-in, Configuring the server port for IBM 3270 BSC terminal emulation, Configuring the server port or a Multiport for IBM 3270 SNA terminal emulation, Configuring a CIU port for IBM 3270 SNA terminal emulation
- Start IBM 3270 Emulation** Available to the enabled user when IBM 3270 emulation is stopped and the External Communication Service is started. Controls the availability of the 3270 emulation feature.
Related procedures: Adding and assigning an IBM 3270 BSC host, Adding and assigning an IBM 3270 SNA host
- Stop** Available to the enabled user when the External Communication Service is started. Stops the External Communication Service.
Related procedures: Adding a Communication Interface Unit, Configuring the server port or a Multiport for asynchronous terminal emulation and dial-in, Configuring a CIU port for asynchronous terminal emulation and dial-in, Configuring the server port for IBM 3270 BSC terminal emulation, Configuring the server port or a Multiport for IBM 3270 SNA terminal emulation, Configuring a CIU port for IBM 3270 SNA terminal emulation
- Stop IBM 3270 Emulation** Available to the enabled user when IBM 3270 emulation and the External Communication Service are started. Controls the availability of the 3270 emulation feature. This command is not available unless an IBM 3270 host has already been added.
Related procedures: Adding and assigning an IBM 3270 BSC host, Adding and assigning an IBM 3270 SNA host
- Verify Clearinghouse Entries** Available to the enabled user. Updates the entries in the Clearinghouse database.
Related procedure: Verifying Clearinghouse entries

Procedures

This section contains these procedures for setting up the External Communication Service:

Initializing the External Communication Service

Use this procedure to name and register the External Communication Service with the Clearinghouse Service.

Adding a Communication Interface Unit

Use this procedure to name and register a Communication Interface Unit for asynchronous terminal emulation and dial-in, 3270 SNA terminal emulation, or Internetwork Routing Service communication circuits.

Configuring the server port or a Multiport for asynchronous terminal emulation and dial-in

Use this procedure to configure and register the server port or a Multiport Option Kit for asynchronous terminal emulation and/or dial-in.

Configuring a CIU port for asynchronous terminal emulation and dial-in

Use this procedure to configure and register an 873 Communication Interface Unit port for asynchronous terminal emulation and/or dial-in.

Configuring the server port for IBM 3270 BSC terminal emulation

Use this procedure to configure and register the server port for IBM 3270 BSC terminal emulation.

Adding and assigning an IBM 3270 BSC host

Use this procedure to add an IBM host to the External Communication Service for IBM 3270 BSC emulation, and to assign the host to the server port.

Configuring the server port or a Multiport for IBM 3270 SNA terminal emulation

Use this procedure to configure and register the server port or the Multiport Option Kit for IBM 3270 SNA terminal emulation.

Configuring a CIU port for IBM 3270 SNA terminal emulation

Use this procedure to configure and register an 873 Communication Interface Unit port for IBM 3270 SNA terminal emulation.

Adding and assigning an IBM 3270 SNA host

Use this procedure to add an IBM host to the External Communication Service for IBM 3270 SNA emulation, and to assign the host to a Communication Interface Unit, the server port, or a Multiport Option Kit.

Verifying Clearinghouse entries

Use this procedure to reregister External Communication Service port information with the Clearinghouse Service.

The procedures you perform and the order in which you perform them vary with the communications options you are configuring. You initialize the External Communication Service for all options. For the remaining procedures and their order, find your communications option configuration in the following list:

- Asynchronous communications using a CIU:
 - "Adding a Communication Interface Unit"
 - "Configuring a CIU port for asynchronous terminal emulation and dial-in"
- Asynchronous communications using the server port or a Multiport Option Kit: "Configuring the server port or a Multiport for asynchronous terminal emulation and dial-in."
- IBM 3270 BSC emulation:
 - "Configuring the server port for IBM 3270 BSC terminal emulation"
 - "Adding and assigning an IBM 3270 BSC host"
- IBM 3270 SNA emulation using a CIU:
 - "Adding a Communication Interface Unit"
 - "Configuring a CIU port for IBM 3270 SNA terminal emulation"
 - "Adding and assigning an IBM 3270 SNA host"
- IBM 3270 SNA emulation using the server port or a Multiport Option Kit:
 - "Configuring the server port or a Multiport for IBM 3270 SNA terminal emulation"
 - "Adding and assigning an IBM 3270 SNA host "

As a final step, use the "Verifying Clearinghouse entries" procedure to register port information if the ECS was unable to do so automatically.

Initializing the External Communication Service

Use this procedure to name and describe the External Communication Service and validate it with the Clearinghouse Service. You can then configure the ports for different communication activity, depending on the type of hardware installed.

Prerequisites

- See the External Communication Service Worksheet in your *Activities Guide* for the following information: in your *Activities Guide* for the name and description of the External Communication Service.

Step-by-step

ECS: Normal startup? (Y/N):

1. Immediately after installing the ECS, type **Y** at the "Normal startup" prompt .

Attempting to determine the name of this External Communication Service.

Service name and description unknown.

Enter service name:

2. Type the name of the External Communication Service and press RETURN. If there is no Clearinghouse Service (Genesis installation), use a fully qualified name.
3. Type a description for the External Communication Service .

Enter service description:

4. Type **Y** at the "Confirm" prompt .
 - Y** Registers the service in the Clearinghouse.
 - N** Cancels the process and returns you to step 2.

Confirm? (Y/N):

NOTE

After all coresident services complete initialization, the Clearinghouse confirms the new entry, it warns you that the External Communication Service has no ports assigned to it. This warning is normal.

Wrap-up

When you see the message "External Communication Service run," you have initialized the External Communication Service and registered it in the Clearinghouse.

If the communications option you are configuring uses a Communication Interface Unit, perform the procedure "Adding a Communication Interface Unit (CIU)," next.

If the communications option you are configuring uses the server port or a Multiport Option Kit, perform the correct procedure for that option:

- "Configuring the server port or a Multiport for asynchronous terminal emulation and dial-in"
- "Configuring the server port for IBM 3270 BSC terminal emulation"
- "Configuring the server port or a Multiport for IBM 3270 SNA terminal emulation"

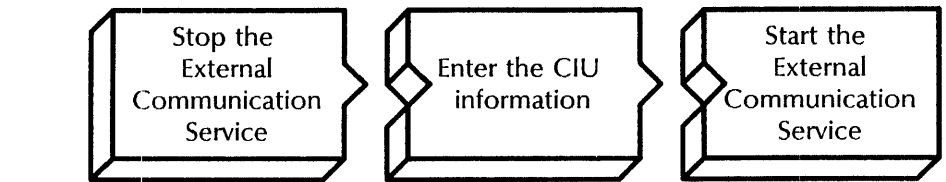
Example

This example shows initializing an External Communication Service named Iceman. This service will be used to configure CIU ports for an Internetwork Routing Service.

```

ECS: Normal Startup? (Y/N): Y
Attempting to determine the name of this External Communication Service.
Service name and description unknown.
Enter service name: Iceman
Enter service description: ECS to add CIU ports for IRS
Confirm? (Y/N): Y
Validating Clearinghouse entry for: Iceman:OurDomain:Our Org
A new Clearinghouse entry was created.
Done
ECS: Warning - No RS232C port assigned to this External Communication Service.
ECS: Warning - No active RS232C port assigned to this External Communication
Service.
ECS: Data pertaining to this External Communication Service has changed. Verify
Clearinghouse Entries command will be run now.
Attempting to determine the name of this External Communication Service.
Validating Clearinghouse entry for: Iceman:OurDomain:OurOrg
Done
Clearinghouse entry verification complete.
ECS: External Communication Service is started.
External Communication Service run.
!
```

Adding a Communication Interface Unit



Use this procedure to add a Communication Interface Unit (CIU) to the External Communication Service before you configure CIU ports.



If you have already added a Communication Interface Unit for a different communication activity, you do not have to perform this procedure again.

Prerequisites

See the External Communication Service Worksheet in your *Activities Guide* for the following information:

- The name and description for the Communication Interface Unit
- The type of CIU (one-board or two-board)
- The CIU processor number

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Stop**

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the “Disconnect active users” prompt .
 - Y** Stops all user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all current user activity ends.

ECS:External Communication Service is stopped.

4. Type **Add Communication Interface Unit** .

Name:

5. Type a name for the CIU .

Description:

6. Type a description for the CIU .

```
Type of Communication Interface Unit
1 One board
2 Two board
Enter choice number:
```

7. Type the number for the type of CIU you have installed .

```
Processor Number of Communication Interface Unit:
```

8. Type the CIU processor number .

```
Confirm this Communication Interface Unit information (Y/N):
```

9. Type **Y** at the "Confirm this Communication Interface Unit information" prompt .

Y Adds the CIU.

N Cancels the process. Return to step 5.

```
Done. Communication Interface Unit < name > has been
added.
```

```
Add another Communication Interface Unit? (Y/N):
```

10. Type **Y** or **N** at the "Add another Communication Interface Unit" prompt .

Y Return to step 5.

N Ends the process.

```
ECS!
```

11. Type **Start** .

```
ECS: External Communication Service is started
ECS!
```

Wrap-up

When you see the message "External Communication Service is started," you have registered the CIU with the External Communication Service. When you start the ECS, it boots the CIU. The CIU ports are now available to the Internetwork Routing Service, for 3270 SNA emulation, or for asynchronous communication.

If you are using Remote System Administration, use the Make Document or Make Screen option to make a copy of the CIU information for your records.

If you are setting up asynchronous communication, now perform the procedure "Configuring an 873 port for asynchronous terminal emulation and dial-in."

If you are setting up 3270 SNA communication, now perform the "Configuring CIU ports for IBM 3270 SNA terminal emulation" procedure.

If you are setting up Internetwork Routing Service circuits using a CIU, turn to the Internetwork Routing Service chapter in this book.

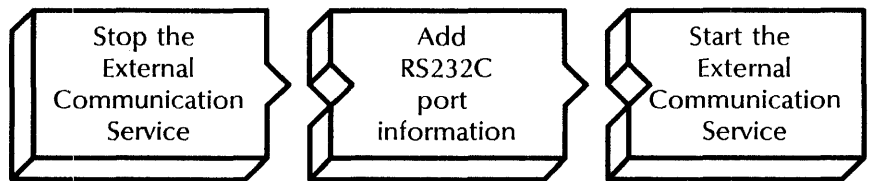
Example

This example shows adding a one-board 873 Communication Interface Unit named Topgun to support an Internetwork Routing Service link.

```

ECS!Stop
Disconnect active users? (Y?N): Y
ECS: External Communication Service is stopped.
Add Communication Interface Unit
  Name: Topgun
  Description: Supports IRS link
  Type of Communication Interface Unit
  1 One board
  2 Two board
  Enter choice number: 1
  Processor Number of Communication Interface Unit: 949-000-000
  Confirm this Communication Interface Unit information (Y/N): Y
Done. Communication Interface Unit Topgun has been added.
  Add another Communication Interface Unit? (Y/N): N
ECS!Start
ECS: External Communication Service is started
ECS!
    
```

Configuring the server port or a Multiport for asynchronous terminal emulation and dial-in




Use this procedure to configure the server port or the Multiport Option Kit for asynchronous terminal emulation and/or asynchronous dial-in.


Prerequisites

- Enable the Asynchronous Communication Protocol software option.
- Install the Multiport Option Kit software.
- Install the appropriate communications hardware: an RS232C port or the Multiport Option Kit.
- See the External Communication Service Worksheet in your *Activities Guide* for the following information: in your *Activities Guide* for the following information:
 - The RS232C port name and use
 - The local port number, if you are using the Multiport Option Kit
 - Whether dial-in users will be automatically connected to the Interactive Terminal Service
 - The number of data and stop bits in each character
 - The parity of each character bit pattern
 - If your equipment has autodialer hardware:
 - the autodialer type
 - the OCTAL values for the XOn and XOff characters
 - The equipment duplexity and line speed
 - The port access controls

Step-by-step

1. Log on and enable in the External Communication Service context, if necessary.
2. Type **Stop** .

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately stops all user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all current user activity ends.

ECS: External Communication Service is stopped.

4. Type **Add RS232C Port** .

NOTE

The system does not recognize the **Add RS232C Port** command if you have not enabled the Asynchronous Communication Protocol software option on the server.

Enter RS232C port name:

5. Type a name for the RS232C port \leftarrow .

Enter local port number (0..63):

6. Type the local port number and press RETURN. This prompt appears only if you have the Multiport Option Kit installed.

Type of use for which port is intended
 1 Asynchronous Terminal Emulation
 2 Asynchronous Dial-In
 3 Asynchronous Terminal Emulation and Dial-In
 4 IBM 3270 SNA Emulation
 5 IBM 3270 BSC Emulation
 Enter choice number:

7. Type **1**, **2**, or **3** to identify the port use \leftarrow .



The choices you see for port use depend on the communication software options you have enabled.

Should dial-in users be automatically connected to the local ITS? (Y/N):

8. Type **Y** or **N** at the prompt for automatic ITS connection and press RETURN. This prompt appears only if you typed **2** or **3** in step 7.

Y Connects incoming calls to this port to the local Interactive Terminal Service only, preventing Remote System Administration.

N Lets the connecting user use the Interactive Terminal Service, including an Interactive Terminal Service on another server, or enable Remote System Administration functions from the remote terminal.

Description:

9. Type a description for the port \leftarrow .

Select number of data bits in each character
 1 five
 2 six
 3 seven
 4 eight
 Enter choice number:

10. Type the number for the data bits in each character \leftarrow .

Select number of stop bits in each character

1 one

2 two

Enter choice number:

11. Type the number for the stop bits in each character .

Select parity

1 even

2 odd

3 none

Enter choice number:

12. Type the number for the parity of each character bit pattern .

Does equipment have autodialer hardware? (Y/N):

13. Type **Y** or **N** at the "Does equipment have autodialer hardware" prompt .

Y Indicates your equipment has autodialer hardware.
Continue with step 14.

N Your equipment does not have autodialer hardware.
Skip to step 15.

Autodialer type is

1 Ven-Tel

2 Racal-Vadic

3 V25bis

4 Hayes command set on a pulse dialed line

5 Hayes command set on a touch-tone dialed line

6 RS366

Enter choice number:

14. Type the number for the kind of autodialer you have and press RETURN. Select RS366 dialing only if you are using port 0.

Does equipment support XOn/XOff flow control? (Y/N)

15. Type **Y** or **N** at the flow control prompt .

Y **Continue with step 16.**

N **Skip to step 18.**

Enter OCTAL value for XOn character:

16. Type the OCTAL values for the XOn characters .

Enter OCTAL value for XOff character:

17. Type the OCTAL values for the XOff characters ↵.

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

18. Type the number for the equipment duplexity ↵.

Select line speed

- 1 75 bps
- 2 110 bps
- 3 134.5 bps
- 4 150 bps
- 5 300 bps
- 6 600 bps
- 7 1200 bps
- 8 2400 bps
- 9 3600 bps
- 10 4800 bps
- 11 7200 bps
- 12 9600 bps
- 13 19200 bps

Enter choice number:

19. Type the number for the equipment line speed ↵.

Is access control desired? (Y/N):

20. Type **Y** or **N** at the access control prompt and press RETURN. This prompt appears only if you typed **2** or **3** in step 7.

Y Allows a specific user group to use this asynchronous emulation port. **Continue with step 21.**

N Allows all users on the internetwork to use this asynchronous emulation port. **Skip to step 22.**

Enter the name of the group allowed access to this port:

21. Type the name of the user group whose members may access asynchronous emulation ↵.

Confirm this RS232C Port information? (Y/N):

22. Type **Y** or **N** at the "Confirm this RS232C Port information" prompt ↵.

Y Adds the port.

N Cancels the process. Return to step 5.

```
Clearinghouse update complete.  
Done. RS232C port <name > has been added.  
Add another RS232C port? (Y/N):
```

23. Type **Y** or **N** at the "Add another RS232C port" prompt **↵**.

Y Return to step 5.

N Ends the process.

```
ECS!
```

24. Type **Start** **↵**.

```
ECS: External Communication Service is started  
ECS!
```

Wrap-up

When you see the message "External Communication Service is started," you have configured the 8000/8090 server port or the Multiport Option Kit for asynchronous terminal emulation and/or dial-in.

If you are using Remote System Administration, use the Make Document or Make Screen options to make a copy of the port assignments for your records.

Example

This example shows adding an RS232C port for asynchronous terminal emulation and dial-in.

ECS!StopDisconnect active users? (Y/N): **Y**

ECS: External Communication Service is stopped.

Add RS232C PortEnter RS232C port name: **Port3**Enter local port number (0...63): **2***(The above prompt appears only if the multiport option is installed.)*

Type of use for which this port is intended

- 1 Asynchronous Terminal Emulation
- 2 Asynchronous Dial-In
- 3 Asynchronous Terminal Emulation and Dial-In
- 4 IBM 3270 SNA Emulation
- 5 IBM 3270 BSC Emulation

Enter choice number: **3**Should dial-in users be automatically connected to the local ITS? (Y/N): **N**Description: **TTY emulation and dial-in on 8000 port**

Select number of data bits in each character

- 1 five
- 2 six
- 3 seven
- 4 eight

Enter choice number: **3**

Select number of stop bits in each character

- 1 one
- 2 two

Enter choice number: **2**

Select parity

- 1 even
- 2 odd
- 3 none

Enter choice number: **3**Does equipment have autodialer hardware? (Y/N): **Y**

Autodialer type is

- 1 Ven-Tel
- 2 Racal-Vadic
- 3 V25bis
- 4 Hayes command set on a pulse dialed line
- 5 Hayes command set on a touch-tone dialed line
- 6 RS366

Enter choice number: **2**Does equipment support XOn/XOff flow control? (Y/N): **Y**Enter OCTAL value for XOn character: **21**Enter OCTAL value for XOff character: **23**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

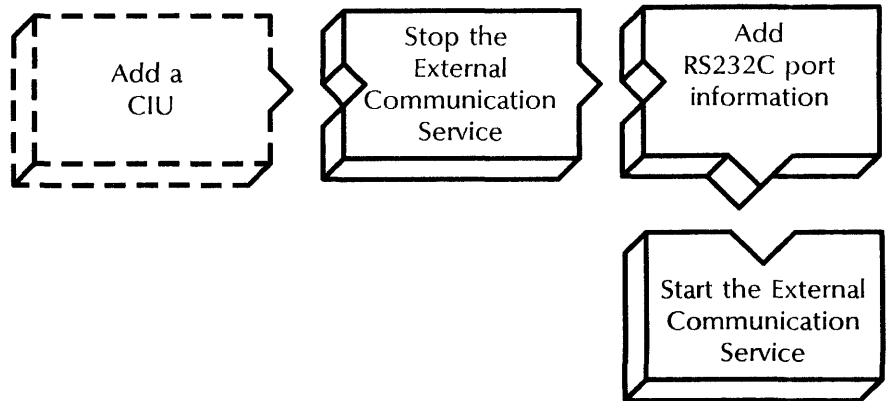
Enter choice number: **1***Screen continued*


```

Select line speed
1  75 bps
2  110 bps
3  134.5 bps
4  150 bps
5  300 bps
6  600 bps
7  1200 bps
8  2400 bps
9  3600 bps
10 4800 bps
11 7200 bps
12 9600 bps
13 19200 bps
Enter choice number: 7
Is access control desired? (Y/N): N
Confirm this RS232C Port information? (Y/N): Y
Clearinghouse update complete
Done. RS232C port Port3 has been added.
Add another RS232C port? (Y/N): N
ECS!Start
ECS: External Communication Service is started
ECS!

```

Configuring a CIU port for asynchronous terminal emulation and dial-in



Use this procedure to configure an 873 CIU port for asynchronous terminal emulation and/or dial-in.

Prerequisites

- Enable the Asynchronous Communication Protocol software option.

- See the External Communication Service Worksheet in your *Activities Guide* for the following information:
 - The RS232C port name
 - The port connection, if you are using a CIU
 - The local port number
 - The port use
 - Whether dial-in users will be automatically connected to the Interactive Terminal Service
 - Whether the port is to behave as a terminal or modem
 - The number of data and stop bits in each character
 - The parity of each character bit pattern
 - If your equipment has autodialer hardware:
 - the autodialer type
 - the OCTAL values for the XOn and XOff characters
 - The equipment duplexity and line speed
 - The port access controls

Step-by-step

1. Log on and enable in the External Communication Service context, if necessary.
2. Type **Stop** .

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately stops all user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all current user activity ends.

ECS: External Communication Service is stopped.

4. Type **Add RS232C Port** .

NOTE

The system does not recognize the **Add RS232C Port** command if you have not enabled the communications software options on the server.

Enter RS232C port name:

5. Type a name for the RS232C port .

Port is connected to

- 1 A Xerox 873 Communication Interface Unit
- 2 A Xerox 8000/8090 Processor

Enter choice number:

6. Type **1**, to identify the port connection and press RETURN. The prompt appears only if you have an 873 Communication Interface Unit configured.

```
Select the 873 Communication Unit that controls the port
1 <CIU name>
2 <CIU name>
Enter choice number:
```

7. Type the number for the CIU you want to configure **←**.

```
Select port number
1 A1
2 A2
3 A3
4 A4
5 B1
6 B2
7 B3
8 B4
Enter choice number:
```

8. Type the number for the port you want to register and press RETURN. Choices B1 through B4 appear only for a double-board CIU.

```
Type of use for which port is intended
1 Asynchronous Terminal Emulation
2 Asynchronous Dial-In
3 Asynchronous Terminal Emulation and Dial-In
4 IBM 3270 SNA Emulation
5 IBM 3270 BSC Emulation
Enter choice number:
```

9. Type **1**, **2**, or **3** to identify the port use **←**.

```
Should dial-in users be automatically connected to the local
ITS? (Y/N):
```

10. Type **Y** or **N** at the automatic ITS connection prompt and press RETURN. This prompt appears only if you typed **2** or **3** in step 9.

Y Connects incoming calls to this port to the local Interactive Terminal Service only, preventing Remote System Administration.

N Lets the connecting user use the Interactive Terminal Service, including an Interactive Terminal Service on another server, or enable Remote System Administration functions from the remote terminal.

```
Description:
```

11. Type a description for the port \leftarrow .

Should this port behave as a
1 modem (DCE)
2 terminal (DTE)
Enter choice number:

12. Type the number for the port behavior you want \leftarrow .

Select number of data bits in each character
1 five
2 six
3 seven
4 eight
Enter choice number:

13. Type the number for the data bits in each character \leftarrow .

Select number of stop bits in each character
1 one
2 two
Enter choice number:

14. Type the number for the stop bits in each character \leftarrow .

Select parity
1 even
2 odd
3 none
Enter choice number:

15. Type the number for the parity of each character bit pattern \leftarrow .

Does equipment have autodialer hardware? (Y/N):

16. Type **Y** or **N** at the "Does equipment have autodialer hardware" prompt \leftarrow .

- Y** Indicates your equipment has autodialer hardware. **Continue with step 17.**
- N** Indicates your equipment does not have autodialer hardware. **Skip to step 18.**

Autodialer type is

- 1 Ven-Tel
- 2 Racal-Vadic
- 3 RS366
- 4 V25bis
- 5 Hayes command set on a pulse dialed line
- 6 Hayes command set on a touch-tone dialed line

Enter choice number:

17. Type the number for the kind of autodialer you have .

Does equipment support XOn/XOff flow control? (Y/N)

18. Type **Y** or **N** at the flow control prompt .

Y Continue with step 19.

N Skip to step 21.

Enter OCTAL value for XOn character:

19. Type the OCTAL value for the XOn characters .

Enter OCTAL value for XOff character:

20. Type the OCTAL value for the XOff characters .

Select line speed

- 1 75 bps
- 2 110 bps
- 3 134.5 bps
- 4 150 bps
- 5 300 bps
- 6 600 bps
- 7 1200 bps
- 8 2400 bps
- 9 3600 bps
- 10 4800 bps
- 11 7200 bps
- 12 9600 bps
- 13 19200 bps

Enter choice number:

21. Type the number for the equipment line speed .

Is access control desired? (Y/N):

22. Type **Y** or **N** at the access control prompt and press RETURN. This prompt appears only if you typed **1** or **3** in step 9.

Y Allows a specific user group to use this asynchronous emulation port. **Continue with step 23.**

N Allows all users on the internetwork to use this asynchronous emulation port. **Skip to step 24.**

Enter the name of the group allowed access to this port:

23. Type the name of the user group whose members may access asynchronous emulation .

Confirm this RS232C Port information? (Y/N):

24. Type **Y** or **N** at the "Confirm this RS232C Port information" prompt .

Y Adds the port.

N Cancels the process. Return to step 5.

Clearinghouse update complete.
Done. RS232C port <port name> has been added.
Add another RS232C port? (Y/N):

25. Type **Y** or **N** at the "Add another RS232C port" prompt .

Y Return to step 5.

N Ends the process.

ECS!

26. Type **Start** .

Wrap-up

The CIU reboots automatically when you start the External Communication Service. You see a boot message and the number assigned to the CIU board (or two numbers in sequence if you are using a two-board unit).

When you see the message "External Communication Service is started," you have configured the CIU port for asynchronous terminal emulation and/or dial-in. The External Communication Service lists the RS232C ports assigned to the Communication Interface Unit and updates the Clearinghouse.

If you are using Remote System Administration, use the Make Document or Make Screen options to make a copy of the port assignments for your records.

Example

This example shows configuring a CIU port named SharedPort for asynchronous terminal emulation and dial-in.

ECS!Stop

Disconnect active users? (Y/N): **Y**

ECS: External Communication Service is stopped.

Add RS232C Port

Enter RS232C port name: **SharedPort**

Port is Connected to

1 A Xerox 873 Communication Interface Unit

2 A Xerox 8000/8090 Processor

Enter choice number: **1**

Select the 873 Communication Interface Unit that controls the port

1 Maverick

2 Topgun

Enter choice number: **2**

Select port number

1 A1

2 A2

3 A3

4 A4

5 B1

6 B2

7 B3

8 B4

Enter choice number: **4**

Type of use for which port is intended

1 Asynchronous Terminal Emulation

2 Asynchronous Dial-In

3 Asynchronous Terminal Emulation and Dial-In

4 IBM 3270 SNA Emulation

5 IBM 3270 BSC Emulation

Enter choice number: **3**

Should dial-in users be automatically connected to the local ITS? (Y/N): **N**

Description: **CIU port shared between emulation and Greeter**

Should this port behave as a

1 modem (DCE)

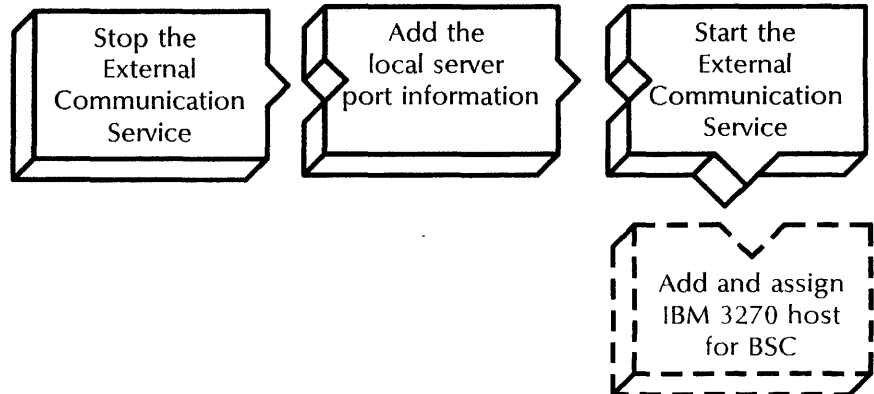
2 terminal (DTE)

Enter choice number: **2**

Screen continued

```
Select number of data bits in each character
1  five
2  six
3  seven
4  eight
Enter choice number: 4
Select number of stop bits in each character
1  one
2  two
Enter choice number: 2
Select parity
1  even
2  odd
3  none
Enter choice number: 3
Does equipment have autodialer hardware? (Y/N): Y
Autodialer type is
1  Ven-Tel
2  Racal-Vadic
3  RS366
4  V25bis
5  Hayes command set on a pulse dialed line
6  Hayes command set on a touch-tone dialed line
Enter choice number: 2
Does equipment support XOn/XOff flow control?(Y/N): Y
Enter OCTAL value for XOn character: 21
Enter OCTAL value for XOff character: 23
Select line speed
1  75 bps
2  110 bps
3  134.5 bps
4  150 bps
5  300 bps
6  600 bps
7  1200 bps
8  2400 bps
9  3600 bps
10 4800 bps
11 7200 bps
12 9600 bps
13 19200 bps
Enter choice number: 7
Is access control desired? (Y/N): Y
Enter the name of the group allowed access to this port: Admin
Access group is Admin:OurDomain:OurOrg
Confirm this RS232C Port information? (Y/N): Y
Clearinghouse update complete
Done. RS232C port SharedPort has been added.
Add another RS232C port? (Y/N): N
ECS!Start
ECS: External Communication Service is started.
ECS!
```


Configuring the server port for IBM 3270 BSC terminal emulation



Use this procedure to configure the server port for IBM 3270 BSC terminal emulation. In this configuration, an IBM host computer using 3270 BSC protocol can communicate directly with a Xerox 8000/8090 server, over a dedicated leased line.

Prerequisites

- Enable the 3270 BSC Communication Protocol software option.
- See the External Communication Service Worksheet in your *Activities Guide* for the following information:
 - The RS232C port name
 - The port use
 - The equipment duplexity and line speed

Step-by-step

1. Log on and enable in the External Communication Service context, if necessary.
2. Type **Stop** .

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately stops all user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all current user activity ends.

ECS: External Communication Service is stopped.

4. Type **Add RS232C Port** .



The system does not recognize the **Add RS232C Port** command if you have not enabled the 3270 BSC communications software option on the server.

Enter RS232C port name:

5. Type a name for the RS232C port .

Type of use for which port is intended
 1 Asynchronous Terminal Emulation
 2 Asynchronous Dial-In
 3 Asynchronous Terminal Emulation and Dial-In
 4 IBM 3270 SNA Emulation
 5 IBM 3270 BSC Emulation
 Enter choice number:

6. Type 5 to identify the port use .



If you set the communications software options for IBM 3270 BSC emulation only, you do not see all the choices available for port use.

Description:

7. Type a description for the port .

The equipment connected to this port is
 1 full duplex
 2 half duplex
 Enter choice number:

8. Type the number for the equipment duplexity .

Select line speed
 1 300 bps
 2 600 bps
 3 1200 bps
 4 2400 bps
 5 3600 bps
 6 4800 bps
 7 7200 bps
 8 9600 bps
 9 19200 bps
 10 28800 bps
 11 38400 bps
 12 48000 bps
 13 56000 bps
 Enter choice number:

9. Type the number for the equipment line speed .

Confirm this RS232C Port information? (Y/N):

10. Type **Y** or **N** to the "Confirm this RS232C Port information" prompt .

Y Adds the port

N Cancels the process. Return to step 5.

Clearinghouse update complete.

Done. RS232C port <port name> has been added.

Add another RS232C port? (Y/N):

11. Type **Y** or **N** to the "Add another RS232C port" prompt .

Y Return to step 5.

N Ends the process.

ECS!

12. Type **Start** .

Wrap-up

When you see the message "External Communication Service is started," you have configured the local 8000/8090 port for IBM 3270 BSC emulation. The External Communication Service lists the RS232C ports added and updates the Clearinghouse.

If you are using Remote System Administration, perform the Make Document or Make Screen options to make a copy of the port assignments for your records.

Continue with the "Adding and assigning an IBM 3270 BSC host," procedure next.

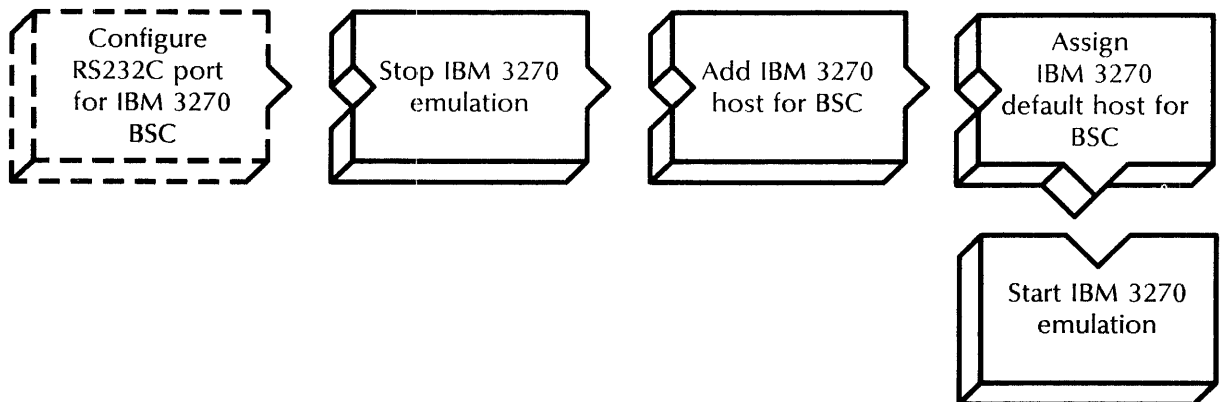
Example

This example shows adding an RS232C port named Port1 for IBM 3270 BSC terminal emulation. The communications software options are set for 3270 BSC Communication Protocol only.

```

ECS!Stop
  Disconnect active users? (Y/N): Y
ECS: External Communication Service is stopped.
Add RS232C Port
  Enter RS232C port name: Port1
  Type of use for which port is intended
  1  IBM 3270 BSC Emulation
  Enter choice number: 1
  Description: local port supporting 3270 BSC to host
  The equipment connected to this port is
  1  full duplex
  2  half duplex
  Enter choice number: 1
  Select line speed
  1  300 bps
  2  600 bps
  .
  .
  7  7200 bps
  .
  .
  13 56000 bps
  Enter choice number: 8
  Confirm this RS232C Port information? (Y/N): Y
  Clearinghouse update complete.
Done. RS232C port Port1 has been added.
  Add another RS232C Port? (Y/N): N
ECS!Start
ECS: External Communication Service is started.
ECS!
    
```

Adding and assigning an IBM 3270 BSC host



Use this procedure to define the parameters for accessing an IBM 3270 BSC host through the network.

Prerequisites

- Enable the IBM 3270 BSC Communication Protocol software option.
- See the External Communication Service Worksheet in your *Activities Guide* for the following information:
 - The name of the 3270 BSC host
 - The RS232C port for host access
 - The emulated 3276 controller address
 - The size of the IBM host buffers
 - The number of ports on the emulated 3276 controller
 - The access controls for each port
 - The language supported

Step-by-step

1. Log on and enable in the External Communication Service context, if necessary.
2. Type **Stop IBM 3270 Emulation** ↵.

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt ↵.
 - Y** Immediately disconnects the IBM 3270 users on the External Communication Service.
 - N** Stops IBM 3270 emulation after all current users log off.

ECS: IBM 3270 Emulation is stopped.
ECS!

4. Type **Add IBM 3270 Host** ↵.

NOTE

The system does not recognize the **Add IBM 3270 Host** command if you have not enabled IBM 3270 BSC communications software options on the server.

Name:

5. Type a name for the IBM 3270 host ↵.

Description:

6. Type a description for the IBM 3270 host ↵.

Choose the RS232C port through which the Host is accessed
1 <port name >
Enter choice number:

7. Type the number for the port to be used for host access
⇐|.

Enter the Emulated 3276 Controller's address (0-31):

8. Type the controller address ⇐|.

Size of buffers to IBM 3270 Host (60...512):

9. Type the size of the IBM 3270 host buffers ⇐|.

Enter the number of ports on the emulated 3276 Controller
(1-8):

10. Type the number of ports on the emulated 3276 controller
⇐|.

Is access control desired? (Y/N):

11. Type **Y** or **N** at the access control prompt ⇐|.

Y Allows a specific user group to use IBM 3270 BSC emulation for these ports. **Continue with step 12.**

N Allows all users on the internetwork to use IBM 3270 BSC emulation for these ports. **Skip to step 13.**

Is the access control the same for all ports? (Y/N):

12. Type **Y** or **N** at the "Is access control the same for all ports" prompt ⇐|.

Y Allows one group access to all configured 3270 ports. **Continue with step 13.**

N Allows one group access to each configured 3270 port. **Skip to step 14.**

Enter the name of the group allowed access to these ports:

13. Type the name of the user group whose members may access all ports ⇐|.

Enter the name of the group allowed access to port
<number >:

14. Type the name of the user group whose members may access the port and press RETURN. Simply press RETURN if you do not want to control access to a port.

Language supported by this Emulated 3276 Controller is

1 Austrian

.

.

9 English (US)

.

.

.

29 Swedish (Alternate)

Enter choice number:

15. Type **9**, for the "English (US)" option, unless your computer site advises you otherwise \Leftarrow .

Is all the Emulated 3276 Controller information correct?
(Y/N):

16. Type **Y** or **N** at the "Is all the Emulated 3276 Controller information correct" prompt \Leftarrow .

Y Adds the controller information.

N Cancels the process. Return to step 5.

Add another Emulated 3276 Controller to this IBM 3270 Host? (Y/N):

17. Type **Y** or **N** at the "Add another Emulated 3276 Controller to this Host" prompt \Leftarrow .

Y Return to step 8.

N Continue with step 18.

Confirm this IBM 3270 Host information? (Y/N):

18. Type **Y** or **N** at the "Confirm this IBM 3270 Host information" prompt \Leftarrow .

Y Adds host information.

N Cancels the process. Return to step 5.

Clearinghouse update complete
Done. <name> (IBM 3270 Host) added.
Add another IBM 3270 Host? (Y/N):

19. Type **Y** or **N** to the "Add another IBM 3270 Host" prompt \Leftarrow .

Y Return to step 5.

N Ends the process.

ECS!

20. Type **Assign IBM 3270 Default Host** ↵.

Choose the RS232C port name through which the host is accessed

- 1 <port name >
- 2 <port name >

Enter choice number:

21. Type the number for the physical port to be used for host access ↵.

Possible IBM 3270 Hosts are

- 1 <host name >
- 2 <host name >

Enter choice number:

22. Type the number for the host ↵.

Done.
ECS!

23. Type **Start IBM 3270 Emulation** ↵.

Wrap-up

When you see the message "IBM 3270 Emulation is started," you have added and assigned an IBM 3270 BSC host. If you are using Remote System Administration, use the Make Document or Make Screen option to make a copy of this procedure for your records.

Example

This example shows adding and assigning an IBM 3270 host named Engineering for BSC terminal emulation. Access is controlled to ports 0, 1, and 2 of the emulated 3276 controller.

ECS!Stop IBM 3270 EmulationDisconnect active users? (Y/N): **Y**

ECS: IBM 3270 Emulation is stopped.

ECS!Add IBM 3270 HostName: **Engineering**Description: **IBM Host entry for 3270 BSC use**

Choose the RS232C port name through which the Host is accessed

1 Port1

Enter choice number: **1**Enter the Emulated 3276 Controller's address (0-31): **1**Size of buffers to IBM 3270 Host (60...512): **512**Enter the number of ports on the emulated 3276 Controller (1-8): **8**Is access control desired? (Y/N): **Y**Is the access control the same for all ports? (Y/N): **N**Enter the name of the group allowed access to port 0: **Marketing**Enter the name of the group allowed access to port 1: **Marketing**Enter the name of the group allowed access to port 2: **Research:R&D**

Enter the name of the group allowed access to port 3:

Enter the name of the group allowed access to port 4:

Enter the name of the group allowed access to port 5:

Enter the name of the group allowed access to port 6:

Enter the name of the group allowed access to port 7:

Language supported by this Emulated 3276 Controller is

1 Austrian

.

.

.

9 English (US)

.

.

.

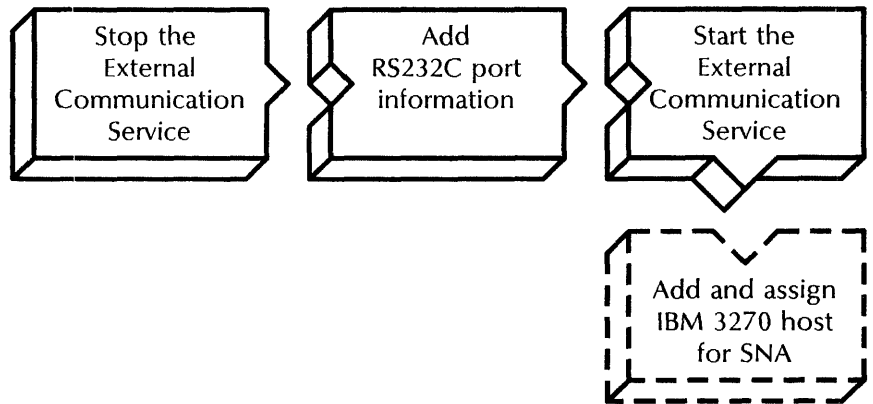
26 Swedish (Alternate)

Enter choice number: **9***Screen continued*

```

Is all the Emulated 3276 Controller information correct? (Y/N): Y
Add another Emulated 3276 Controller to this IBM 3270 Host? (Y/N): N
Confirm this IBM 3270 Host information? (Y/N): Y
Clearinghouse update complete
Done. Engineering (IBM 3270 Host) added.
Add another IBM 3270 Host? (Y/N): N
ECS!Assign IBM 3270 Default Host
Choose the RS232C port name through which the host is accessed
1 Port
2 Backup Port
Enter choice number: 1
Possible IBM 3270 Hosts are
1 LosAngelesHost
2 DenverHost
Enter Choice Number: 1
Done.
ECS!Start IBM 3270 Emulation
ECS: IBM 3270 Emulation is started.
ECS!
    
```

Configuring the server port or a Multiport for IBM 3270 SNA terminal emulation




Use this procedure to configure the server port or a port on the Multiport Option Kit for IBM 3270 SNA terminal emulation. In this configuration, an IBM host computer using standard IBM 3270 SNA protocol can communicate directly with a Xerox 8000/8090 server.

Prerequisites


- Enable the 3270 SDLC/SNA Communication Protocol software option.
- Install the appropriate communications hardware: an RS232C port or the Multiport Option Kit.
- Install the Multiport Option Kit software.

- See the External Communication Service Worksheet in your *Activities Guide* for the following information:
 - The RS232C port name
 - If you are using a Multiport Option Kit:
 - the local port numbers
 - the type of data encoding
 - The port use
 - If you are using an autodialer, the autodialer type
 - The equipment duplexity and line speed

Step-by-step

1. Log on and enable in the External Communication Service context, if necessary.
2. Type **Stop** .

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately stops all user sessions and the External Communication Service.
 - N** Stops after all current user activity ends.


ECS: External Communication Service is stopped.

4. Type **Add RS232C Port** .

NOTE

The system does not recognize the **Add RS232C Port** command if you have not enabled the IBM SNA communications option on the server.

Enter RS232C port name:

5. Type a name for the RS232C port .

Enter local port numbers (0...63):

6. Type the local port numbers and press RETURN. This prompt appears only if you have the Multiport Option Kit installed.

Type of use for which port is intended

- 1 Asynchronous Terminal Emulation
- 2 Asynchronous Dial-In
- 3 Asynchronous Terminal Emulation and Dial-In
- 4 IBM 3270 SNA Emulation
- 5 IBM 3270 BSC Emulation

Enter choice number:

7. Type **4** to identify the port use and press RETURN. Item 5 appears only if you have enabled the communications options for IBM 3270 BSC emulation.

Description:

8. Type a description for the port \leftarrow .

Does equipment have autodialer hardware? (Y/N):

9. Type **Y** or **N** at the "Does equipment have autodialer hardware" prompt \leftarrow .

Y Indicates your equipment has autodialer hardware. **Continue with step 10.**

N Indicates your equipment does not have autodialer hardware. **Skip to step 11.**

Autodialer type is
 1 Hayes
 2 RS366
 3 V25bis
 Enter choice number:

10. Type the number for the kind of autodialer you have and press RETURN. Select RS366 dialing only if you are using port 0.

The equipment connected to this port encodes data using:
 1 nrz
 2 nrzi
 Enter choice number:

11. Type a number for the kind of data encoding used and press RETURN. This prompt appears only if you have the Multiport Option Kit installed.

The equipment connected to this port is
 1 full duplex
 2 half duplex
 Enter choice number:

12. Type the number for the equipment duplexity \Leftarrow .

Select line speed

- 1 300 bps
- 2 600 bps
- 3 1200 bps
- 4 2400 bps
- 5 3600 bps
- 6 4800 bps
- 7 7200 bps
- 8 9600 bps
- 9 19200 bps
- 10 28800 bps
- 11 38400 bps
- 12 48000 bps
- 13 56000 bps

Enter choice number:

13. Type the number for the equipment line speed and press RETURN. Items 9 through 13 appear only if you have the Multiport Option Kit installed.

Confirm this RS232C Port information? (Y/N):

14. Type **Y** or **N** at the "Confirm this RS232C Port information" prompt \Leftarrow .

Y Adds the port.

N Cancels the process. Return to step 5.

Clearinghouse update complete

Done. RS232C port <name> has been added.

Add another RS232C port? (Y/N):

15. Type **Y** or **N** at the "Add another RS232C port" prompt \Leftarrow .

Y Return to step 5.

N Ends the process.

ECS!

16. Type **Start** \Leftarrow .

ECS: External Communication Service is started

ECS!

Wrap-up

When you see the message "External Communication Service is started," you have configured the 8000/8090 server port or the Multiport Option Kit for IBM 3270 SNA terminal emulation. The External Communication Service lists the RS232C ports added and updates the Clearinghouse.

If you are using Remote System Administration, use the Make Document or Make Screen option to make a copy of the port assignments for your records.

Now perform the "Adding and assigning an IBM 3270 SNA host" procedure.

Example

This example shows configuring an RS232C port named Jupiter-Localport for IBM 3270 SNA terminal emulation.

ECS!Stop

Disconnect active users? (Y/N): **Y**

ECS: External Communication Service is stopped.

Add RS232C Port

Enter RS232C port name: **Jupiter-Localport**

Enter local port numbers (0...63): **2**

Type of use for which port is intended

1 IBM 3270 SNA Emulation

Enter choice number: **1**

Description: **local port supporting 3270 SNA to host**

Does equipment have autodialer hardware? (Y/N): **N**

The equipment connected to this port is

1 full duplex

2 half duplex

Enter choice number: **2**

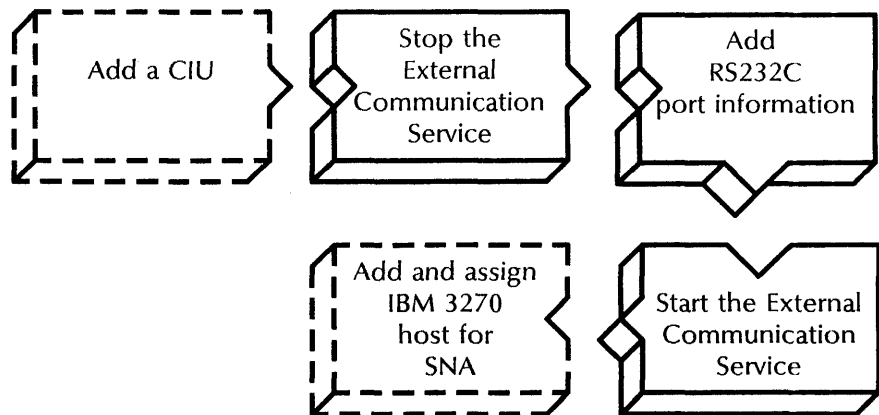
Screen continued

```

Select line speed
1  300 bps
2  600 bps
3  1200 bps
4  2400 bps
5  3600 bps
6  4800 bps
7  7200 bps
8  9600 bps
Enter choice number: 6
Confirm this RS232C Port information? (Y/N): Y
Clearinghouse update complete.
Done. RS232C port Jupiter-Localport has been added.
Add another RS232C Port? (Y/N): N
ECS!Start
ECS: External Communication Service is started
ECS!

```

Configuring a CIU port for IBM 3270 SNA terminal emulation



Use this procedure to configure an 873 CIU port for IBM 3270 SNA terminal emulation. This configuration can use only a dedicated leased line.

Prerequisites

- Enable the 3270 SDLC/SNA Communication Protocol software option.
- See the External Communication Service Worksheet in your *Activities Guide* for the following information:
 - The RS232C port name
 - The port connection, if you are using a CIU
 - The name and number of the CIU that controls the port

- The port use
- The line speed

Step-by-step

1. Log on and enable in the External Communication Service context, if necessary.
2. Type **Stop** ↵.

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt ↵.
 - Y** Immediately stops all user sessions and the External Communication Service.
 - N** Stops the External Communication Service after all current user activity ends.

ECS: External Communication Service is stopped.

4. Type **Add RS232C Port** ↵.

NOTE

The system does not recognize the **Add RS232C Port** command if you have not enabled the 3270 SDLC/SNA Communication Protocol software option.

Enter RS232C port name:

5. Type a name for the RS232C port ↵.

Port is connected to
 1 A Xerox 873 Communication Interface Unit
 2 A Xerox 8000/8090 Processor
 Enter choice number:

6. Type **1** to identify the port connection and press RETURN. This prompt appears only if you have an 873 Communication Interface Unit configured.

Select the 873 Communication Unit that controls the port
 1 <CIU name >
 2 <CIU name >
 Enter choice number:

7. Type the number for the CIU you want to configure ↵.

Select port number

- 1 A1
- 2 A2
- 3 A3
- 4 A4
- 5 B1
- 6 B2
- 7 B3
- 8 B4

Enter choice number:

8. Type the number for the port you want to register and press RETURN. Items B1 through B4 appear only for a double-board CIU.

Type of use for which port is intended

- 1 Asynchronous Terminal Emulation
- 2 Asynchronous Dial-In
- 3 Asynchronous Terminal Emulation and Dial-In
- 4 IBM 3270 SNA Emulation
- 5 IBM 3270 BSC Emulation

Enter choice number:

9. Type 4 to identify the port use and press RETURN. The choices in this prompt vary according to the communications options you have enabled.

Description:

10. Type a description for the port .

Select line speed

- 1 300 bps
- 2 600 bps
- 3 1200 bps
- 4 2400 bps
- 5 3600 bps
- 6 4800 bps
- 7 7200 bps
- 8 9600 bps

Enter choice number:

11. Type the number for the equipment line speed .

Confirm this RS232C Port information? (Y/N):

12. Type **Y** or **N** at the “Confirm this RS232C Port information” prompt .

Y Adds the port.

N Return to step 5.

```
Clearinghouse update complete.
Done. RS232C port <name> has been added.
Add another RS232C port? (Y/N):
```

13. Type **Y** or **N** at the “Add another RS232C port” prompt .

Y Return to step 5.

N Ends the process.

```
ECS!
```

14. Type **Start** .

Wrap-up

The CIU reboots automatically when you start the External Communication Service. You see a boot message and the number assigned to the CIU board (or two numbers in sequence if you are using a two-board unit).

When you see the message “External Communication Service is started,” you have configured the CIU port for IBM 3270 SNA emulation. The External Communication Service lists the RS232C ports assigned to the Communication Interface Unit and updates the Clearinghouse.

If you are using Remote System Administration, use the Make Document or Make Screen option to make a copy of the port assignments for your records.

Now perform the “Adding and assigning an IBM 3270 SNA host” procedure.

Example

This screen shows configuring a CIU port named CIUport for IBM 3270 SNA terminal emulation.

ECS!StopDisconnect active users? (Y/N): **Y**

ECS: External Communication Service is stopped.

Add RS232C PortEnter RS232C port name: **CIUport**

Port is connected to

- 1 A Xerox 873 Communication Interface Unit
- 2 A Xerox 8000/8090 Processor

Enter choice number: **1**

Select 873 Communication Interface Unit that controls the port

- 1 CIU659
- 2 CIU699

Enter choice number: **2**

Select port number

- 1 A1
- 2 A2
- 3 A3
- 4 A4
- 5 B1
- 6 B2
- 7 B3
- 8 B4

Enter choice number: **4**

Type of use for which port is intended

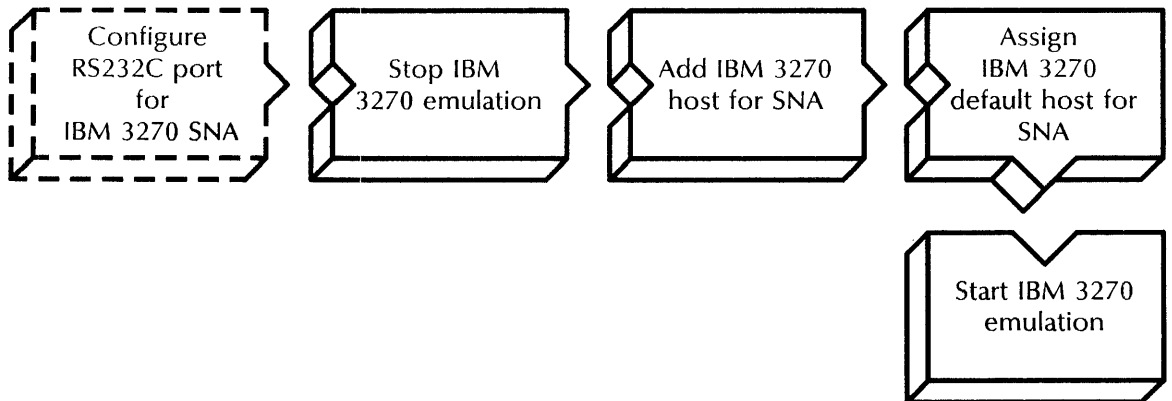
- 1 Asynchronous Terminal Emulation
- 2 Asynchronous Dial-In
- 3 Asynchronous Terminal Emulation and Dial-In
- 4 IBM 3270 SNA Emulation

Enter choice number: **4**Description: **CIU port supporting dedicated line to SNA host***Screen continued*

```

Select line speed
1 300 bps
2 600 bps
3 1200 bps
4 2400 bps
5 3600 bps
6 4800 bps
7 7200 bps
8 9600 bps
Enter choice number: 7
Confirm this RS232C Port information? (Y/N): Y
Clearinghouse update complete
Done. RS232C port CIUport has been added.
Add another RS232C port? (Y/N): N
ECS!Start
ECS: External Communication Service is started
ECS!
    
```

Adding and assigning an IBM 3270 SNA host




Use this procedure to define the parameters for accessing an IBM 3270 host through the network.

Prerequisites


- Configure an RS232C port for the IBM 3270 SNA terminal emulation.
- See the External Communication Service Worksheet in your *Activities Guide* for the following information:
 - The name of the 3270 BSC host
 - The RS232C port for host access

- The dial-up phone number for a dial-up line
- The emulated 3276 controller XID number
- The emulated 3276 controller address
- The size of the IBM host buffers
- The number of ports on the emulated 3276 controller
- The access controls for each port
- The language supported

Step-by-step

1. Log on and enable in the External Communication Service context, if necessary.
2. Type **Stop IBM 3270 Emulation** .

Disconnect active users? (Y/N):

3. Type **Y** or **N** at the "Disconnect active users" prompt .
 - Y** Immediately disconnects the IBM 3270 users on the External Communication Service.
 - N** Stops IBM 3270 emulation after all current users log off.


ECS: IBM 3270 Emulation is stopped.
ECS!

4. Type **Add IBM 3270 Host** .


The system does not recognize the **Add IBM 3270 Host** command if you have not enabled the IBM 3270 SDLC/SNA Communication Protocol software option.

NOTE

Name:

5. Type a name for the IBM host .

Description:

6. Type a description for the IBM host .

Choose the RS232C port through which the Host is accessed
1 <port name >
2 <port name >
Enter choice number:

7. Type the number for the port to be used for host access .

Is this a dial-up line? (Y/N):

8. Type **Y** or **N** at the “Is this a dial-up line” prompt .
- Y** Indicates a dial-up line. **Continue with step 9.**
- N** Indicates a dedicated line. **Skip to step 10.**

Enter the phone number to be dialed:

9. Type a seven-digit phone number (do not hyphenate) .

Minimum number of characters is five
Enter Emulated 3276 Controller XID:

10. Type the five hexadecimal characters that represent the XID .

Enter the Emulated 3276 Controller’s address (1-255):

11. Type the controller address .

Enter the size of buffers to IBM 3270 Host (60-512):

12. Type the size of the IBM 3270 host buffers .

Enter the number of ports on the emulated 3276 Controller
(1-8):

13. Type the number of ports on the emulated 3276 controller .

Is access control desired? (Y/N):

14. Type **Y** or **N** at the access control prompt .
- Y** Allows a specific user group to use IBM 3270 emulation for these ports. **Continue with step 15.**
- N** Allows all users on the internetwork to use IBM 3270 emulation for these ports. **Skip to step 16.**

Is the access control the same for all ports? (Y/N):

15. Type **Y** or **N** at the “Is the access control the same for all ports” prompt .
- Y** Allows one group access to all configured 3270 ports. **Continue with step 16.**
- N** Allows one group access to each configured 3270 port. **Skip to step 17.**

Enter the name of the group allowed access to these ports:

16. Type the name of the user group whose members may access all ports ↵.

Enter the name of the group allowed access to port 0:

17. Type the name of the user group allowed access to the port and press RETURN. Simply press RETURN if you do not want to control access to a port.

Language supported by this Emulated 3276 Controller is

1 Austrian
.
.
9 English (US)
.
.
29 Swedish (Alternate)

Enter choice number:

18. Type the number for the language supported.

NOTE

Always type **9**, "English (US)" option, unless your computer site advises you otherwise.

Is all the Emulated 3276 Controller information correct? (Y/N):

19. Type **Y** or **N** at the "Is all the Emulated 3276 Controller information correct" prompt ↵.

Y Adds the controller information.

N Return to step 8.

Add another Emulated 3276 Controller to this IBM 3270 Host? (Y/N):

20. Type **Y** or **N** at the "Add another Emulated 3276 Controller to this IBM 3270 Host" prompt ↵.

Y Return to step 5.

N Continue with step 21.

Confirm this IBM 3270 Host information? (Y/N):

21. Type **Y** or **N** at the "Confirm this IBM 3270 Host information" prompt ↵.

- Y Adds the host information.
- N Return to step 5.

Clearinghouse update complete
 Done. <Name> (IBM 3270 Host) added.
 Add another IBM 3270 Host? (Y/N):

22. Type **Y** or **N** at the "Add another IBM 3270 Host" prompt ↵.
- Y Return to step 5.
 - N Ends the process.

ECS!

23. Type **Assign IBM 3270 Default Host** ↵.

Choose the RS232C port name through which the host is accessed
 1 <port name>
 2 <port name>
 Enter choice number:

24. Type the number for the physical port to be used for host access ↵.

Possible IBM 3270 Hosts are
 1 <host name>
 2 <host name>
 Enter choice number:

25. Type the number for the host used ↵.

Done.
 ECS!

26. Type **Start IBM 3270 Emulation** ↵.

Wrap-up

When you see the message "IBM 3270 Emulation is started," you have added and assigned an IBM 3270 host. If you are using Remote System Administration, use the Make Document or Make Screen option to make a copy of this host information for your records.

Example

This example shows adding and assigning an IBM 3270 host named Development for SNA terminal emulation. Access is controlled to ports 0, 1, and 2 of the emulated 3276 controller.

ECS!Stop IBM 3270 EmulationDisconnect active users? (Y/N): **Y**

ECS: IBM 3270 Emulation is stopped

ECS!Add IBM 3270 HostName: **Development**Description: **IBM Host entry for 3270 SNA use**

Choose the RS232C port through which the Host is accessed

1 CIUport

2 Jupiter-Localport

Enter choice number: **2**Is this a dial-up line? (Y/N): **Y**Enter the phone number to be dialed: **5551212**

Minimum number of characters is 5

Enter Emulated 3276 Controller XID: **054FD**Enter the Emulated 3276 Controller's address (1-255): **193**Enter the size of buffers to IBM 3270 Host (60..512): **265**Enter the number of ports on the emulated 3276 Controller (1-8): **4**Is access control desired? (Y/N): **Y**Is the access control the same for all ports? (Y/N): **N**Enter the name of the group allowed access to port 0: **Marketing**Enter the name of the group allowed access to port 1: **Marketing**Enter the name of the group allowed access to port 2: **Research:R&D**

Enter the name of the group allowed access to port 3:

Enter the name of the group allowed access to port 4:

Enter the name of the group allowed access to port 5:

Enter the name of the group allowed access to port 6:

Enter the name of the group allowed access to port 7:

Language supported by this Emulated 3276 Controller is

1 Austrian

.

.

9 English (US)

.

.

26 Swedish (Alternate)

Enter choice number: **9**Is all the Emulated 3276 Controller information correct? (Y/N): **Y**Add another Emulated 3276 Controller to this IBM 3270 Host? (Y/N): **N**Confirm this IBM 3270 Host information? (Y/N): **Y**

Clearinghouse update complete

Done. Development (IBM 3270 Host) added.

Add another IBM 3270 Host? (Y/N): **N****ECS!Assign IBM 3270 Default Host***Screen continued*

```

Choose the RS232C port name through which the host is accessed
1  SNA Port
2  Backup Port
Enter choice number: 1
Possible IBM 3270 Hosts are
1  NewYorkHost
2  FloridaHost
Enter Choice Number: 1
Done.
ECS!Start IBM 3270 Emulation
ECS: IBM 3270 Emulation is started
ECS!

```

Verifying Clearinghouse entries



Normally the External Communication Service automatically registers ports and IBM hosts when you create or change these entries. If the External Communication Service reports that it cannot register information with the Clearinghouse Service, use the **Verify Clearinghouse Entries** command to re-register the information.



The Clearinghouse Service does not verify a synchronous dial-in port. Dial-in users are never known to the Clearinghouse Service, and are not shown.

Step-by-step

1. Log on and enable in the External Communication Service context.
2. Type **Verify Clearinghouse Entries** .

Should all entries be verified? (Y/N):

3. Type **Y** or **N** at the "Should all entries be verified" prompt .
 - Y** Checks all entries.
 - N** Checks only inconsistent entries. An inconsistent entry is an unsuccessful registration of a port or host in the Clearinghouse. Checking for inconsistency completes the verification sooner.

Wrap-up

When you see the message "Clearinghouse entry verification complete," all inconsistent entries have been registered in the Clearinghouse.

Example

This example shows all entries being verified. The entry for the External Communication Service is validated and the entry for RS232C port Port1 is updated in the Clearinghouse database.

ECS!Verify Clearinghouse Entries

Should all entries be verified? (Y/N): **Y**

Attempting to determine the name of this External Communication Service.

Validating Clearinghouse Entry for Iceman:OurDomain:OurOrg.

Done

Attempting to update entry for RS232C Port, Port1:OurDomain:OurOrg.

Clearinghouse update complete

...

Clearinghouse entry verification complete.

ECS!

This chapter contains the procedures you perform to set up the SNA Mail Relay (SMR). These procedures are available from an 8000 server.

Prerequisites

Complete these tasks before you perform any SNA Mail Relay setup procedures:

- Install all required software on the server supporting the SNA Mail Relay as described in the Server Software Installation chapter in this book.
- Install all required software on the server supporting the Mail Service and the Foreign Gateway Assistant as described in the Server Software Installation chapter in this book.
- Have handy the SNA Mail Relay Worksheet. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed a completed copy in the *Activities Guide*.

Commands

This section lists the commands you use to set up your SNA Mail Relay Service. You must be in the proper context to access these commands.

Table 10-1 shows the commands along with the logged on status, the service name, and the service state (started or stopped) for accessing them.

Table 10-1. SNA Mail Relay, SNA Access, and Foreign Gateway Assistant setup commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Controller (SNA)					•	
Add Foreign Domain (MS)					•	•
Add Foreign Gateway (MS)					•	•
Add Foreign Gateway Mailbox (FGA)					•	
Add Mail Link (SMR)						•
Add RS232C Port (SNA)					•	
Add SNADS Network (SNA)					•	
Add XNS Domains (SMR)					•	
Start Controller (SNA)					•	
Start Event Logging (SNA)					•	

Add Controller Available to the enabled user when the SNA Access is started. Adds controller information. All RS232C port entries must exist before using this command.

Related procedure: Adding the port, controller, and SNADS network

Add Foreign Domain Available to the enabled user. Adds a specific foreign domain to the list of foreign domains accessible through the External Mail Gateway option. The foreign gateway must exist before you can add the foreign domain.

Related procedure: Adding the foreign gateway, mailbox, and foreign domain

Add Foreign Gateway Available to the enabled user. Adds a specific inbound gateway telephone number and defines the calling interval. The calling interval specifies a period of time during which the local gateway can dial up the foreign gateway.

Related procedure: Adding the foreign gateway, mailbox, and foreign domain

Add Foreign Gateway Mailbox Available to the enabled user when the Foreign Gateway Assistant is started. Adds the mailbox for the mail application.

Related procedure: Adding the foreign gateway, mailbox, and foreign domain

-
- Add Mail Link** Available to the enabled user when the SNA Mail Relay is stopped. Adds mail link information.
Related procedure: Adding the mail link and XNS domain-to-DGN mappings
- Add RS232C Port** Available to the enabled user when the SNA Access is started. Adds RS232C port information.
Related procedure: Adding the port, controller, and SNADS network
- Add SNADS Network** Available to the enabled user when the SNA Access is started. Adds SNADS network information. A controller must exist before using this command.
Related procedure: Adding the port, controller, and SNADS network
- Add XNS Domains** Available to the enabled user when the SNA Mail Relay is started. Adds XNS domain-to-DGN mapping information.
Related procedure: Adding the mail link and XNS domain-to-DGN mappings
- Start Controller** Available to the enabled user when the SNA Access is started. Starts the controller at the end of the setup procedure.
Related procedure: Adding the mail link and XNS domain-to-DGN mappings
- Start Event Logging** Available to the enabled user when the SNA Access is started. Records information for the SNA Mail Relay.
Related procedure: Adding the mail link and XNS domain-to-DGN mappings

Procedures

This section contains these procedures for setting up the SNA Mail Relay:

Initializing the SNA Mail Relay

Use this procedure to identify your service name and description, and to validate the Clearinghouse entry. You perform this procedure at the server supporting SNA Mail Relay.

Adding the port, controller, and SNADS network

Use this procedure to add RS232C port, controller, and SNADS network information at the server supporting the SNA Mail Relay.

Adding the foreign gateway, mailbox, and foreign domain

Use this procedure to add foreign gateway, mailbox, and domain information at the server supporting the Mail Service and the Foreign Gateway Assistant.

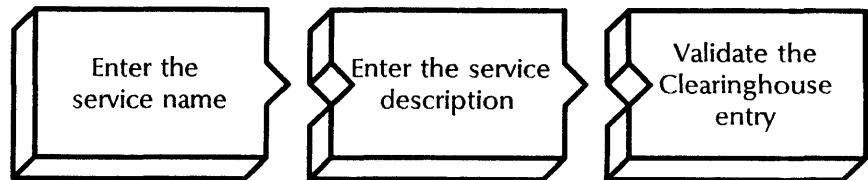
Adding the mail link and XNS domain-to-DGN mappings

Use this procedure to add the mail link and XNS domain-to-DGN mapping information at the server supporting the SNA Mail Relay.



Perform these procedures in the order they appear in this chapter.

Initializing the SNA Mail Relay



Use this procedure to identify your service name and description. Perform this procedure after entering "Proceed" when you have installed the software.

Prerequisites

See the SNA Mail Relay Worksheet in your *Activities Guide* for the name and description of your SNA Mail Relay.

Step-by-step

```

Running SNA Mail Relay Service
SMR: Service name and description unknown.
Enter service name:
  
```

1. Immediately after installing and running the SNA Mail Relay, type the local name of the SMR and press RETURN. The domain and organization default to that of the server.

```

Enter service description:
  
```

2. Type the description of your service .

```

Confirm (Y/N):
  
```

3. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the service in the Clearinghouse.
 - N** Cancels the process.

```

SMR: Validating Clearinghouse entry was created.
SMR: Done.
      No Mail Links defined.
The SNA Mail Relay could not be started
SNA Mail Relay Service run.
!
  
```

Wrap-up

When you see the "!" prompt, you have initialized the SNA Mail Relay. Messages show the SNA Mail Relay needs configuration information and is now running. Continue with the next

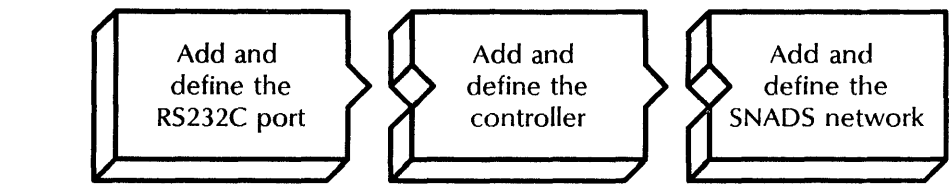
procedure to add the port, controller, and SNADS network information.

Example

This screen shows initializing an SNA Mail Relay.

```
Running SNA Mail Relay Service
SMR:  Service name and description unknown.
      Enter service name: Speedy:Anaheim:Xerox
      Enter service description: SMR to SNADS1
      Confirm (Y/N): Y
SMR:  Validating Clearinghouse entry was created.
SMR:  Done.
      No Mail Links defined.
The SNA Mail Relay could not be started
SNA Mail Relay Service run.
!
```

Adding the port, controller, and SNADS network



Use this procedure to add and define the RS232C port, controller, and SNADS network to make the SNA Mail Relay operational with an SNA environment. You perform this procedure at the server where the SNA Mail Relay is installed.



Make sure you have installed the Mail Service with the External Mail Gateway enabled, as well as the Foreign Gateway Assistant on another server. See the Mail Service chapter in the *Services Installation and Setup Guide* for Mail Service information.

Prerequisites

See the SNA Mail Relay Worksheet in your *Activities Guide* for the following information:

- The number and name of the local port
- Whether the line access is dedicated or switched
- The encoding protocol in use, either NRZ or NRZI
- Whether the modem is full or half duplex
- The name, description, and telephone number (for switched lines only) of the controller
- The XID number
- The SDLC station address
- The MAXDATA value
- If you are adding a logical unit, its name and address
- The name of the SNADS network
- The RGN and REN of the adjacent SNADS node
- The RGN and REN of the Xerox server
- The mode names for sending to and receiving from the SNADS network
- The maximum number of hops to allow
- Whether the connection is continuous

Step-by-step

1. Log on and enable in the SNA Access context at the server where the SNA Mail Relay is installed.

2. Type **Add RS232C Port** .

Enter choice number:

3. Type the number of the RS232C port .

Enter RS-232-C port name:

4. Type the name of the RS232C port .

Description:

5. Type a description of the purpose of this port .

Access to the telephone line is
 1 dedicated
 2 switched
 Enter choice number:

6. Type **1** or **2** to identify the telephone access for the RS232C port .

- 1 Indicates the telephone line is dedicated.
- 2 Indicates the telephone line is switched.

Does this equipment have autodialer hardware ? (Y/N):

7. Type **Y** or **N** to indicate autodialing capability. The next prompt appears only if you have a Multiport Option Kit installed. If not, **skip to step 9**.

The equipment connected to this port encodes data using
 1 nrz
 2 nrzi
 Enter choice number:

8. Type **1** or **2** to identify how the data will be encoded .

- 1 Indicates NRZ protocol is in use.
- 2 Indicates NRZI protocol is in use.

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

9. Type **1** or **2** to identify the duplexity of the modem attached to the RS232C port .
- 1** Indicates full duplex; the modem can transmit data in both directions at the same time.
 - 2** Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Confirm this RS232C port information? (Y/N):

10. Type **Y** or **N** at the "Confirm" prompt .
- Y** Adds the port information.
 - N** Cancels the process.

RS232C port <name> has been added.
SNA!

11. Type **Add Controller** .

Controller Name:

12. Type the name of the controller .

Description:

13. Type the description of the controller .

RS232C port to use

- 1 <port name>
- 2 <port name>

Enter choice number:

14. Type the number for the port you entered in step 3 .

Re-start controller when server is rebooted? (Y/N):

15. Type **Y** or **N** at the “Re-start controller when server is rebooted” prompt \Leftarrow .

Y Restarts the controller when you reboot the server.

N Does not restart the controller.

Telephone number:

16. Type the telephone number of the host \Leftarrow . This prompt appears only if your phone line is switched.

XID (hex):

17. Type the XID hexadecimal number \Leftarrow . This prompt appears only if your phone line is switched.

SDLC station address (hex):

18. Type the hexadecimal SDLC station address \Leftarrow .

MAXDATA (decimal) (0..16384):

19. Type the MAXDATA hexadecimal number \Leftarrow .

Add a logical unit? (Y/N):

20. Type **Y** or **N** at the “Add a logical unit” prompt \Leftarrow .

Y Lets you add and define a logical unit; **continue with step 21.**

N Completes the process without adding a logical unit; **skip to step 24.**

Name of logical unit:

21. Type the name for the logical unit \Leftarrow .

This logical unit is of type 6.2.

Address of logical unit (hex):

22. Type the hexadecimal address for the logical unit \Leftarrow .

Add another logical unit? (Y/N):

23. Type **Y** or **N** at the “Add another logical unit” prompt \Leftarrow .

Y Lets you add another logical unit; **return to step 21.**

N Completes the process to add a logical unit; **continue with step 24.**

Confirm this controller information? (Y/N):

24. Type **Y** or **N** at the "Confirm this controller information" prompt .
- Y** Adds the controller information.
- N** Cancels the process.

Controller <name> has been added.
SNA!

25. Type **Add SNADS Network** .

SNADS Network Name:

26. Type the name of the SNADS network .

RGN of adjacent SNADS node:

27. Type the RGN for the host .

REN of adjacent SNADS node:

28. Type the REN for the host .

RGN of Xerox server:

29. Type the RGN for the Xerox server .

REN of Xerox server:

30. Type the REN for the Xerox server .

Select a controller for sending and receiving

1 <controller name>

2 <controller name>

Enter choice number:

31. Type the number for the controller you entered at step 12 .

Select a local LU for SENDING to SNADS network

1 <logical unit name>

2 <logical unit name>

Enter choice number:

32. Type the number for the local sending logical unit .

Mode name used for SENDING to SNADS network:

33. Type the LOGMODE for sending to a SNADS network .

Select a local LU for RECEIVING from SNADS network
1 <logical unit name >
Enter choice number:

34. Type the number for the local receiving logical unit .

Mode name used for RECEIVING from SNADS network:

35. Type the LOGMODE for receiving from a SNADS network .

Remote LU for SENDING to SNADS network:

36. Type the name of the remote sending logical unit .

Remote LU for RECEIVING from SNADS network:

37. Type the name of the remote receiving logical unit .

Maximum hops for delivery (1..32767):

38. Type the number of hops .

Do you want continuous (24 hr) connection? (Y/N):

39. Type **Y** or **N** for continuous connection at the "Do you want ..." prompt .

Y Establishes a 24 hour connection between the network and the controller. **Skip to step 43.**

N Does not establish a continuous connection. **Continue with step 40.**

Start time of connection interval (hh:mm):

40. Indicate the start time of the connection in the HH:MM format .

Length of connecting interval (hh:mm):

41. Indicate the length of the interval in the HH:MM format .

Add another connecting interval? (Y/N):

42. Type **Y** or **N** at the "Add another connecting interval" prompt .

Y Lets you add another interval; **return to step 40.**

N Ends the process to add another connecting interval. **Continue with at step 43.**

Adding SNADS network <name>. Confirm? (Y/N):

43. Type **Y** or **N** at the "Confirm" prompt .

Y Adds the SNADS network to the configuration.

N Cancels the process.

SNADS network <name> added
SNA!

Wrap-up

When you see the "SNA!" prompt, you have added the RS232C port, controller, and SNADS network information. It is recommended that you verify the port, controller, and SNADS parameters before continuing with the next procedure to add the foreign gateway, mailbox, and foreign domain information.

Use the **Show RS232C port**, **Show Controller**, and **Show SNADS Network Parameters** in the SNA Access context to verify the information you entered from the worksheet. Make sure you entered the correct information for:

- encoding protocol (NRZ or NRZI)
- XID address (switched lines only)
- SDLC station address
- LU names and addresses

Use the **Change RS232C port**, **Change Controller**, and **Change SNADS Network Parameters** to make changes.

Example

This example shows adding port and controller information for the SNA Mail Relay. The server has a Multiport Option Kit installed.

SNA!Add RS232C port

Enter local port number

- 1 port 0
- 2 port 1
- 3 port 2
- 4 port 3

Enter choice number: **2**

Enter RS-232-C port name: **MPOK port 1**

Description: **OBS Port**

Access to the telephone line is

- 1 dedicated
- 2 switched

Enter choice number: **2**

Does this equipment have autodialer hardware? (Y/N): **N**

The equipment connected to this port encodes data using

- 1 nrz
- 2 nrzi

Enter choice number: **1**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **2**

Confirm this RS232C port information? (Y/N): **Y**

RS232C port MPOK port 1 has been added.

SNA!Add Controller

Controller Name: **OBS Controller**

Description: **OBS controller for test**

RS232C port to use

- 1 MPOK port 1

Enter choice number: **1**

Re-start controller when server is rebooted? (Y/N): **Y**

Telephone number: **1-500-555-0200**

XID (hex): **03E00180**

SDLC station address (hex): **02**

MAXDATA (decimal) (0..16384): **265**

Add a logical unit? (Y/N): **Y**

Name of logical unit: **U05SZ221**

This logical unit is of type 6.2.

Address of logical unit (hex): **2**

Add another logical unit? (Y/N): **N**

Confirm this controller information? (Y/N): **Y**

Controller OBS Controller has been added.

SNA!

This example shows adding and defining the SNADS network.

SNA!Add SNADS Network

SNADS Network Name: **OBS SNADS Network**

RGN of adjacent SNADS node: **OBSHostA**

REN of adjacent SNADS node: **DSVHost**

RGN of Xerox server: **OBSHostA**

REN of Xerox server: **S36XRXI**

Select a controller for sending and receiving

1 OBS Controller

Enter choice number: **1**

Select a local LU for SENDING to SNADS network

1 U05SZ221

2 U05SZ220

Enter choice number: **1**

Mode name used for SENDING to SNADS network: **6DU**

Select a local LU for RECEIVING from SNADS network

1 U05SZ220

Enter choice number: **1**

Mode name used for RECEIVING from SNADS network: **6DU**

Remote LU for SENDING to SNADS network: **DISOSS33**

Remote LU for RECEIVING from SNADS network: **DISOSS33**

Maximum hops for delivery (1..32767): **5**

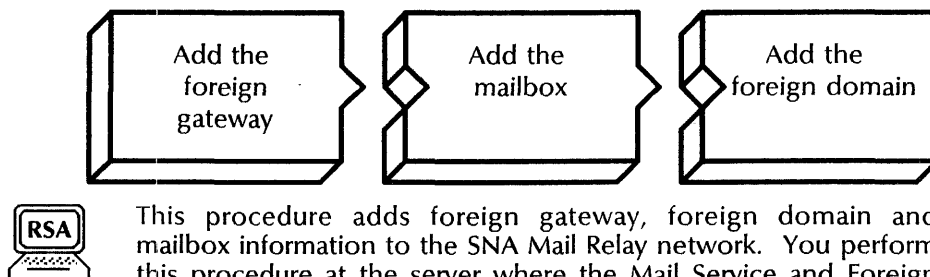
Do you want continuous (24 hr) connection? (Y/N): **Y**

Adding SNADS network OBS SNADS Network. Confirm? (Y/N): **Y**

SNADS network OBS SNADS Network added

SNA!

Adding the foreign gateway, mailbox, and foreign domain



This procedure adds foreign gateway, foreign domain and mailbox information to the SNA Mail Relay network. You perform this procedure at the server where the Mail Service and Foreign Gateway Assistant are installed.

Prerequisites

See the SNA Mail Relay Worksheet for the following information:

- The phone number of the foreign gateway
- The fully qualified name of the Foreign Gateway Assistant
- The name of the foreign domain

Step-by-step

1. At the server supporting the Mail Service and Foreign Gateway Assistant, log on and enable in the Mail Service context.

MS!

2. Type **Add Foreign Gateway** \leftarrow .

Phone number:

3. Type the area code and phone number for the foreign gateway and press RETURN. Enter the number without parentheses or hyphens.

Start time of calling interval:

4. Type **00:00** to define the start time of the calling interval \leftarrow .

Length of calling interval:

5. Type **00:00** to define the length of the calling interval **↵**.

Done.
MS!

6. Type **Change Foreign Gateway** **↵**.

Phone number: < number >

7. Type the telephone number for the foreign gateway you entered in step 3 **↵**.

Calling intervals:

Start time: < time >; Length: < time >

Select one of the following

- 1 Add, change or delete calling interval
- 2 Change foreign gateway phone number

Enter choice number: 1

8. Type **1** to change the calling interval **↵**.

- 1 Lets you make changes to the calling interval definition.
- 2 Lets you change the phone number.

Start time of calling interval:

9. Type **00:00** to define the start time of the interval **↵**.

Length of calling interval:

10. Type **00:00** to define the length of the calling interval **↵**.

NOTE

If you see the message, "ERROR: No such calling interval exists", use the **Delete Foreign Gateway** command and start the procedure over at step 2.

Delete calling interval. Confirm (Y/N):

11. Type **Y** at the "Confirm" prompt **↵**.

Y Deletes the calling interval.

N Does not change the calling interval definition.

Done.
MS!

12. Type **Add Foreign Domain** **↵**.

Foreign Domain name:

13. Type the domain and organization name of the foreign domain and press RETURN. Use a colon to separate the domain and organization.

Foreign Gateway (phone number):

14. Type the area code and phone number for the foreign gateway entered at step 3 ↵.

Done.
MS!

15. Type **Foreign Gateway Assistant** ↵.

FGA!

16. Type **Add Foreign Gateway Mailbox** ↵.

Foreign Mail Gateway Service Name:

17. Type the fully qualified name of the mailbox ↵.

Adding mailbox.
Done.
FGA!

Wrap-up

When you see the "FGA!" prompt, you have added the foreign gateway, domain, and mailbox information to the server with the Mail Service installed. It is recommended that you verify the foreign gateway, domain and mailbox information before continuing with the next procedure to add mail link and XNS domain information.

Use the **List Foreign Gateway** command in the Mail Service context to make sure there is only one phone number. If there are other phone numbers, use the **Delete Foreign Gateway** command.

Use the **Show Foreign Gateway** command in the Mail Service context to list the foreign domains. Use the **Delete Foreign Domain** to remove an incorrect foreign domain.

Example

This screen shows adding the foreign gateway, and then adding the foreign gateway mailbox and domain.

MS!Add Foreign GatewayPhone number: **2131112222**Start time of calling interval: **00:00**Length of calling interval: **00:00**

Done.

MS!Change Foreign GatewayPhone number: **2131112222**

Calling intervals:

Start time: 00:00; Length: 00:00

Select one of the following

- 1 Add, change or delete calling interval
- 2 Change foreign gateway phone number

Enter choice number: **1**Start time of calling interval: **00:00**Length of calling interval: **00:00**Delete calling interval. Confirm (Y/N): **Y**

Done.

MS!Add Foreign DomainForeign Domain name: **SNADS:Xerox**Foreign Gateway (phone number): **2131112222**

Done.

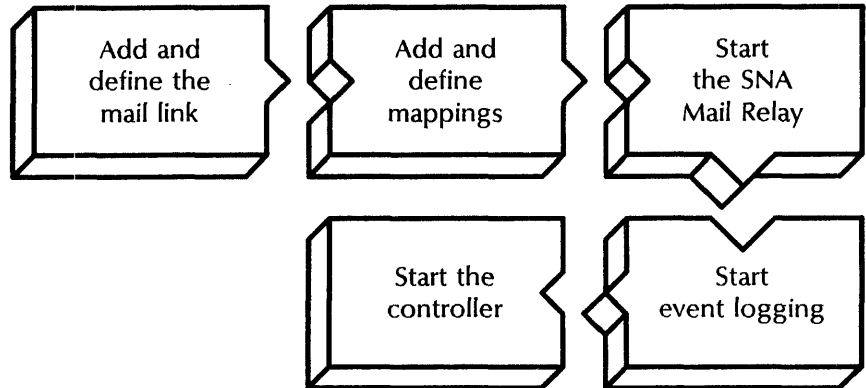
MS!Foreign Gateway Assistant**FGA!Add Foreign Gateway Mailbox**Foreign Mail Gateway Service Name: **Speedy:Anaheim:Xerox**

Adding mailbox.

Done.

FGA!

Adding the mail link and XNS domain-to-DGN mappings



Use this procedure to add the mail link and XNS domain-to-DGN mapping information to the SNA Mail Relay network. You perform this procedure at the server where the SNA Mail Relay Service is installed.

Prerequisites

See the SNA Mail Relay Worksheet for the following information:

- The name of the SNADS network
- If you are specifying other file types, the XNS and the DIA document type numbers
- The name of the XNS domain and its SNADS distribution group (DGN)
- The number of pages to allow in the SNA Mail Relay database
- The name and telephone number of the controller

Step-by-step

1. Log on and enable in the SNA Mail Relay context at the server where the SNA Mail Relay is installed.
2. Type **Add Mail Link** .

SNADS Network name corresponding to this Mail Link:

3. Type the name of the SNADS network .

XNS Foreign Domain corresponding to this Mail Link:

4. Type the domain and organization name for the foreign domain and press RETURN. Use a colon to separate the domain and organization.

DIA document type for ViewPoint documents (hexadecimal):

5. Enter hex number or press RETURN to accept the default.

DIA document type for 860 documents (hexadecimal):

6. Enter hex number or press RETURN to accept the default.

DIA document type for ViewPoint folders (hexadecimal):

7. Enter hex number or press RETURN to accept the default.

Default DIA document type for XNS documents
(hexadecimal):

8. Enter hex number or type 0 to specify the default .

Do you wish to specify DIA document types
for other XNS file types? (Y/N):

9. Type Y or N at the "Do you wish to specify ..." prompt .
- Y** Specifies additional document types. **Continue with step 10.**
 - N** Ends the process to specify document types. **Skip to step 12.**

XNS file type (decimal) (0..2147483647):

10. Enter the file type for other XNS file types .

DIA document type (hexadecimal):

11. Type the DIA document type that corresponds to other XNS file types .

Adding Mail Link <name> SNADS Network. Confirm? (Y/N):

12. Type Y or N at the "Confirm" prompt .
- Y** Adds the mail link to the network.
 - N** Cancels the process.

Mail Link <name> SNADS Network added
SMR!

13. Type **Add XNS Domains** .

XNS domain that can receive SNADS mail:

14. Type the domain and organization name for the XNS domain and press RETURN. Use a colon to separate the domain and organization.

SNADS Distribution Group Name for this XNS domain:

15. Type the DGN for the XNS domain .

Do you want to add another XNS Domain mapping? (Y/N):

16. Type **Y** or **N** at the "Do you want to add ..." prompt .
- Y** Repeats the process to add an XNS domain-to-DGN mapping; **return to step 14.**
 - N** Ends the process to add XNS domain-to-DGN mapping. **Continue with step 17.**

Added 1 Domain - DGN mapping(s)
SMR!

17. Type **Start Service** .

Select choices
1 SNA Mail Relay Service
Enter one or more choices:

18. Type the number for the SNA Mail Relay .

Starting SNA Mail Relay Service.
Creating a database for this service
Size of database in pages (2000..50888):

19. Type the number of disk pages for the SNA Mail Relay database .

The SNA Mail Relay Service has been started
SMR!

20. Type **SNA Access** .

SNA!

21. Type **Start Controller** .

Choose controller to start
1 <name>
Enter choice number:

22. Type the number for the controller .

Dial <number> to establish connection.
Controller <name> has been started. <date> <time>
SNA!

23. Type **Start Event Logging** \leftarrow .

```
Log events for which components?
1  SNADS
2  ControllerManager
3  SNA Mail Relay Service
Enter one or more choices:
```

24. Type **1,2,3** to establish event logs for all components \leftarrow .

```
Creating a new log file
Size in disk pages (1..500):
```

25. Press RETURN to accept the default number of disk pages for the event logging file.

```
Log file created:
File name: Event Log; Size: <number> pages; Created:
<date> <time>
SNA!
```

Wrap-up

When you see the "SNA!" prompt, you have added mail link and XNS domain-to-DGN mapping information. It is recommended that you verify the mail link and mapping information.

Use the **List Mail Links** command in the SNA Mail Relay context to verify:

- The foreign domain(s) matches the foreign domain(s) listed at the server where the Mail Service is installed. Use **Delete Mail Link** to remove an incorrect entry, and then **Add Mail Link** to enter the correct foreign domain.
- The SNADS network name matches the network name displayed using the **Show SNADS Network Parameters** command.

Use the **List XNS Domains** command in the SNA Mail Relay context to check the accuracy of the DGN-to-XNS domain mappings. Use the **Delete XNS Domains** to remove an incorrect entry, and then **Add XNS Domains** to enter the correct domain.

Example

This screen shows adding the mail link and the XNS domain-to-DGN mappings.

SMR!Add Mail Link

SNADS Network name corresponding to this Mail Link: **OBS SNADS**

DIA document type for ViewPoint documents (hexadecimal):

DIA document type for 860 documents (hexadecimal):

DIA document type for ViewPoint folders (hexadecimal):

Default document type will be used

Default DIA document type for XNS documents (hexadecimal): **0**

Do you wish to specify DIA document types

for other XNS file types? (Y/N): **Y**

XNS file type (decimal) (0..2147483647): **15**

DIA document type (hexadecimal): **D001**

Do you wish to specify DIA document types

for other XNS file types? (Y/N): **N**

Adding Mail Link OBS SNADS Network. Confirm? (Y/N): **Y**

Mail Link OBS SNADS Network added

SMR!Add XNS Domains

XNS domain that can receive SNADS mail: **South:OC**

SNADS Distribution Group Name for this XNS domain: **CN393411**

Do you want to add another XNS Domain mapping? (Y/N): **N**

Added 1 Domain - DGN mapping(s)

SMR!

Screen continued

This screen shows starting the SNA Mail Relay, the controller, and the event logging facility.

SMR!Start Service

Select choices

1 SNA Mail Relay Service

Enter one or more choices: **1**

Starting SNA Mail Relay Service.

Creating a database for this service

Size of database in pages (2000..50888): **50888**

The SNA Mail Relay Service has been started

SMR!SNA Access**SNA!Start Controller**

Choose controller to start

1 OBS Controller

Enter choice number: **1**

Dial 1-300-555-0200 to establish connection.

Controller OBS Controller has been started. 30-Sep-87

7:53:55

SNA!Start Event Logging

Log events for which components?

1 SNADS

2 ControllerManager

3 SNA Mail Relay Service

Enter one or more choices: **1,2,3**

Creating a new log file

Size in disk pages (1..500):

Log file created:

File name: Event Log; Size: 25 pages; Created:

30-Sep-87 7:55:00

SNA!

11. Internetwork Routing Service

This chapter contains the procedures you perform to set up the Internetwork Routing Service (IRS). These procedures are available using an 8000 or an 8090 server.



Perform the procedures in this chapter if you did not perform a Genesis Internetwork Routing Service installation as described in the Server Software Installation chapter in this book.

Prerequisites

Complete these tasks before you perform any Internetwork Routing Service setup procedures:

- Install all required software as described in the Server Software installation chapter of this book (see steps 8 and 16).
- If your circuits will use Communication Interface Units (CIUs), install the External Communication Service (ECS) software as described in the Server Software installation chapter of this book (see steps 8 and 16).
- If your circuits will use CIUs, perform the ECS setup procedure, "Adding a Communication Interface Unit (CIU)." See the External Communication Service chapter in this book.
- Have handy the Internetwork Routing Service Worksheet, which describes the service, the X.25 network, and the circuits you are using with your IRS. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed a completed copy in the *Activities Guide*.

Commands

This section lists the commands you use to set up the Internetwork Routing Service. You must be in the IRS context to access these commands.

Table 11-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 11-1. **Internetwork Routing Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Circuit					•	
Add X25 Network					•	

Add Circuit Available to the enabled user when the IRS is started. Defines a new circuit for the IRS.



If your circuits will use CIUs, you must stop the External Communication Service before you add the circuits.

Related procedures: Adding an X.25 switched virtual circuit, Adding an auto-dialed circuit, Adding a manually dialed or a dedicated circuit.

Add X25 Network Available to the enabled user when the IRS is started. Defines the high-level data link control (HDLC) parameters of the X.25 line.

Related procedure: Adding an X.25 network

Procedures

This section contains these procedures for setting up the Internetwork Routing Service:

Initializing the Internetwork Routing Service

Use this procedure to identify your service name and description.

Adding an X.25 network

Use this procedure to define the X.25 high-level data link control (HDLC) protocol. X.25 protocol connects the IRS to a public data network.

Adding an X.25 switched virtual circuit

Use this procedure to define X.25 circuits for the IRS.

Adding an auto-dialed circuit

Use this procedure to define auto-dialed circuits for the IRS. An auto-dialed circuit may use the local port or a port on a Communication Interface Unit or a Multiport Option Kit.

Adding a manually dialed or a dedicated circuit

Use this procedure to define manually dialed or dedicated circuits for the IRS. These circuits may use local ports, Communication Interface Units, or a Multiport Option Kit and have Clusternet Communications installed.

Initializing the Internetwork Routing Service

Use this procedure to identify a name and description for your service, and create a Clearinghouse entry for it.

Prerequisites

See the Internetwork Routing Service Worksheet in your *Activities Guide* for the name and description of your service.

Step-by-step

Running Internetwork Routing Service.
Service name and description unknown.
Enter service name:

1. Immediately after installing the IRS, type the name of your service .

Enter service description:

2. Type the description of your service .

Confirm? (Y/N):

3. Type **Y** or **N** at the "Confirm" prompt .
- Y** Registers the service in the Clearinghouse.
N Cancels the process.

Validating Clearinghouse entry for YourIRS:Domain:Org
A new Clearinghouse entry was created.
Done.
No X.25 network has been defined.
No circuits have been defined.
Internetwork Routing Service is started.
Internetwork Routing Service run.

Wrap-up

When you see the message "IRS run," you have initialized the IRS and registered it in the Clearinghouse. Messages identify whether or not the X.25 network or any circuits exist.

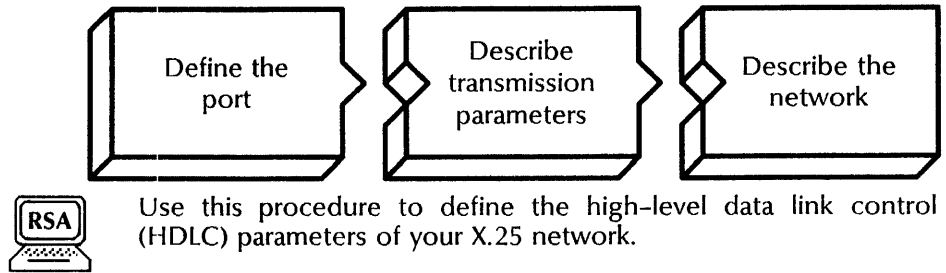
The type of circuit you intend to use determines the procedure you perform next. If you are using X.25 protocol, perform the procedure "Adding an X.25 network" next. For other types of circuits, perform either the procedure "Adding an auto-dialed circuit" or "Adding a manually dialed or a dedicated circuit" later in this chapter.

Example

This example shows registering the Internetwork Routing Service in the Clearinghouse.

```
Running Internetwork Routing Service.
Service name and description unknown.
Enter service name: Pasadena:Calif:USA
Enter service description: IRS link to Dallas office
Confirm? (Y/N): Y
Validating Clearinghouse entry for YourIRS:Finance:ABCCorp
A new Clearinghouse entry was created.
Done.
No X25 network has been defined.
No circuits have been defined.
Internetwork Routing Service is started.
Internetwork Routing Service run.
```

Adding an X.25 network



Prerequisites

See the Internetwork Routing Service Worksheet in your *Activities Guide* for the following information:

- The line speed for the network
- The local address for the network
- If you are using a Multiport Option Kit, the port number
- The number of seconds you want the circuit to wait before attempting to retransmit a packet (transmission timeout) and the number of times you want to try to send the packet
- The number of outstanding frames you want to allow
- The type of packet-switched data network (PSDN) you are using and the protocol ID
- The start and stop channel numbers for the switched virtual circuit (SVC) range
- The description of the X.25 network

Step-by-step

1. Log on and enable in the Internetwork Routing Service context.
2. Type **Add X25 Network** .

Enter local port number (0..63):

NOTE

The “port number” prompt appears only if you are using the Multiport Option Kit. If you do not have the Multiport Option Kit installed, skip to step 4.

3. Type the number of the local port .

NOTE

Step 4 provides X.25 network configuration information to the External Communication Service. When you perform the procedure “Adding an X.25 switched virtual circuit,” you specify autostarting for each circuit as you add it to the network.

Should this line be autostarted (Y/N):

4. Type **Y** or **N** at the "Should this line be autostarted" prompt .

Y Indicates that you want to use the autostart option. You determine which circuits are autostarted as you add them.

N Indicates that all the X.25 circuits will be manually started.

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps

Enter choice number:

5. Type the number for the line speed of the modem attached to the RS232C port .

Local address:

6. Type the numbers identifying the local address of this network .

Retransmission timeout (3..20):

7. Type the number of seconds you want each circuit to wait for a response before resending a packet .

Maximum number of retransmissions (1..100):

8. Type the number of times you want a circuit to try to send a packet .

Maximum number of outstanding frames (1..7):

9. Type the number of outstanding frames you want to allow .

Network types

- 1 Tymnet, Uninet
- 2 Telenet
- 3 DDX
- 4 International DDX
- 5 DDX 80
- 6 Passive DTE

Enter choice number:

10. Type the number that identifies the type of packet-switched data network (PSDN) you are using .

Protocol ID:

11. Using uppercase letters, type the eight hexadecimal digits that represent the protocol ID you want to assign for internetwork routing and press RETURN; or simply press RETURN to accept the default setting of FFFFFFFF.

Switched virtual circuit range
start: (1..4095):

12. Type the number of the start channel for the X.25 switched virtual circuit .

stop: (1..4095):

13. Type the number of the stop channel for the X.25 switched virtual circuit .

X.25 network description:

14. Type a description of the X.25 network .

Confirm X25 network information (Y/N):

15. Type **Y** or **N** at the "Confirm X25 network information" prompt
 - Y** Enters the X.25 network information.
 - N** Cancels this process.

Done.

Wrap-up

When you see the message "Done," you have entered the X.25 network configuration information in the Internetwork Routing Service. Perform the procedure "Adding an X.25 switched virtual circuit" next.

Example

This example shows entering the configuration information for an X.25 network with autostart circuits using a modem operating at 9600 bits per second. The circuits will wait four seconds before resending a packet and will attempt to resend the packet 30 times. This network defines the SVC ranges from 1 through 419.

IRS!Add X25 Network

Enter local port number (0..63): **1**

Should this line be autostarted (Y/N): **N**

Select line speed

1 1200 bps

2 2400 bps

3 3600 bps

4 4800 bps

5 7200 bps

6 9600 bps

Enter choice number: **6**

Local address: **5551234**

Retransmission timeout (3..20): **4**

Maximum number of retransmissions (1..100): **30**

Maximum number of outstanding frames (1..7): **7**

Network types

1 Tymnet, Uninet

2 Telenet

3 DDX

4 International DDX

5 DDX 80

6 Passive DTE

Enter choice number: **2**

Protocol ID: **FFFFFFF**

Switched virtual circuit range

start: (1..4095): **1**

stop: (1..4095): **420**

X25 network description: **X25 for Finance**

Confirm X25 network information (Y/N): **Y**

Done.

IRS!

Adding an X.25 switched virtual circuit



Use this procedure to add an X.25 switched virtual circuit (SVC) to your Internetwork Routing Service.

Prerequisites

- Define the X.25 network before you add an X.25 SVC
- If necessary, stop the External Communication Service
- See the Internetwork Routing Service Worksheet in your *Activities Guide* for the following information:
 - The network address of the remote host
 - Whether the X.25 SVC is autostarted
 - The description of the circuit

Step-by-step

1. Log on and enable in the Internetwork Routing Service context.
2. Type **Add Circuit**

```
Circuit types
1 X.25 SVC
2 Auto-dialed
3 Manually dialed
4 Dedicated
Enter choice number:
```

3. Type **1** to add an X.25 switched virtual circuit .

```
X25 network address of remote host:
```

4. Type the numbers identifying the address of the remote host .

```
Autostart? (Y/N):
```

5. Type **Y** or **N** at the "Autostart" prompt .
 - Y** Starts this circuit automatically when you start the IRS normally; System Administrator must use the **Start Circuit** command to start this circuit manually the first time.
 - N** Requires that the System Administrator always use the **Start Circuit** command to start this circuit.

```
Circuit description:
```


6. Type a description identifying the circuit's purpose and type .

Confirm circuit information? (Y/N):

7. Type **Y** or **N** at the "Confirm circuit information" prompt .

Y Adds the circuit information.

N Cancels the process.

Done.

Wrap-up

When you see the message "Done," you have added a switched virtual circuit to the X.25 network and defined its parameters.

Example

This example shows adding an X.25 switched virtual circuit for the Berkeley lab. The circuit is set to start automatically when you start the IRS normally.

IRS!Add Circuit

Circuit types

1 X.25 SVC

2 Auto-dialed

3 Manually dialed

4 Dedicated

Enter choice number: **1**

X25 network address of remote host: **000415554455**

Autostart? (Y/N): **Y**

Circuit description: **X25 Link to Berkeley - Lab 1**

Confirm circuit information (Y/N)?: **Y**

Done.

IRS!

Adding an auto-dialed circuit



Use this procedure to add and define an auto-dialed circuit for your Internetwork Routing Service.

Prerequisites

- If the circuit is using a CIU, the External Communication Service must be stopped.
- See the Internetwork Routing Service Worksheet in your *Activities Guide* for the following information:
 - The modem's line speed and duplexity; full duplex is recommended
 - The description of this circuit
 - The number and description of the phone line

Step-by-step

1. Log on and enable in the Internetwork Routing Service context, if necessary.
2. Type **Add Circuit** .

```
Circuit types
1 X.25 SVC
2 Auto-dialed
3 Manually dialed
4 Dedicated
Enter choice number:
```

3. Type **2** to add an auto-dialed circuit .

```
Select line speed
1 1200 bps
2 2400 bps
3 3600 bps
4 4800 bps
5 7200 bps
6 9600 bps
7 19200 bps
8 28800 bps
9 38400 bps
10 48000 bps
11 56000 bps
Enter choice number:
```

4. Type the number for the line speed of the modem attached to the RS232C port .

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

5. Type **1** or **2** to identify the duplexity of the modem .
- 1** Indicates full duplex; the modem can transmit data in both directions at the same time.
 - 2** Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Description:

6. Type a description of the purpose of this circuit .

Want to add a number to the current phone list? (Y/N):

7. Type **Y** or **N** to indicate whether you want to add a number to the phone list .
- Y** Lets you add a number to the list.
 - N** **Skip to step 12.**

Phone number:

8. Type the phone number accessing this circuit .

Phone number description:

9. Type a description of the phone's location or purpose .

Want to add another number to the current phone list?(Y/N):

10. Type **Y** or **N** to indicate whether you want to add another phone number now .
- Y** Lets you add another number to the list.
 - N** **Skip to step 12.**

Confirm circuit information? (Y/N):

11. Type **Y** or **N** at the "Confirm circuit information" prompt .
- Y** Adds the circuit information.
 - N** Cancels the process.

Done

Wrap-up

When you see the message "Done," you have added an auto-dialed circuit to the IRS and defined its parameters.

Example

This example shows adding an auto-dialed circuit for the Portland office. It is using a full duplex modem operating at 9600 bits per second. The phone number is added to the current phone list.

IRS!Add Circuit

Circuit types

- 1 X.25 SVC
- 2 Auto-dialed
- 3 Manually dialed
- 4 Dedicated

Enter choice number: **2**

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps
- 7 19200 bps
- 8 28800 bps
- 9 38400 bps
- 10 48000 bps
- 11 56000 bps

Enter choice number: **6**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **1**

Description: **Auto to Portland Office**

Want to add a number to the current phone list? (Y/N): **Y**

Phone number: **9315551234**

Phone number description: **Portland Accounts Payable**

Want to add another number to the current phone list?
(Y/N): **N**

Confirm circuit information (Y/N): **Y**

Done.

IRS!

Adding a manually dialed or a dedicated circuit



Use this procedure to add and define a manually dialed or a dedicated circuit for your Internetwork Routing Service.

These circuits may use local ports, Communication Interface Units, or the Multiport Option Kit. Clusternet Communications may be installed.

Prerequisites

- If the circuit is using a CIU, the External Communication Service must be stopped.
- See the Internetwork Routing Service Worksheet in your *Activities Guide* for the following information:
 - If the port is connected to an 873 CIU, the description of the CIU that controls the port and the port number
 - Whether the line is autostarted, or whether the CIU should be used to autostart the line
 - The modem's line speed and duplexity
 - The description of the circuit
 - If the circuit is part of a clusternet, the network number for the clusternet
 - For a dedicated circuit, the number of the local port

Step-by-step

1. Log on and enable in the Internetwork Routing Service context, if necessary.
2. Type **Add Circuit** .

```
Circuit types
1  X.25 SVC
2  Auto-dialed
3  Manually dialed
4  Dedicated
Enter choice number:
```

3. Type **3** or **4** depending on the type of circuit you are adding .

If you are using a Communication Interface Unit, **continue with step 4**. If not, **skip to step 8**.

```
Port is connected to
1  a Xerox 873 Communication Interface Unit
2  a Xerox 8000 processor
Enter choice number:
```

4. Type **1** or **2** to identify your port connection .

- 1 Indicates the circuit is one of the ports on a CIU. **Continue with step 6.**
- 2 Indicates that even though a CIU is installed, this circuit is on the local port. **Skip to step 7.**

Select 873 Communication Interface unit that controls the port

- 1 <CIU name >
- 2 <CIU name >

Enter choice number:

- 5. Type the number identifying the CIU that controls the port .

Select port number

- 1 A1
- 2 A2
- 3 A3
- 4 A4

Enter choice number:

NOTE

The above prompt may display up to 12 port numbers depending on your hardware configuration.

- 6. Type the number that identifies the port number .

Should this line be autostarted? (Y/N):

- 7. Type **Y** or **N** at the "Should this line be autostarted" prompt .

Y Starts this circuit automatically when you start the IRS normally. **Skip to step 10.**

N Requires that the System Administrator use the **Start Circuit** command to start this circuit manually. **Continue with step 9.**

Should CIU be booted for this use? (Y/N):

- 8. Type **Y** or **N** at the "Should CIU be booted for this use" prompt .

Y Boots the CIU to autostart the line when the External Communication Service is started.

N Does not boot the CIU.

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps

Enter choice number:

9. Type the number that identifies the line speed of the modem attached to the RS232C port and press RETURN. If you are using the local port, the line speeds will range up to 56,000 bits per second.

If you are using the local port, you need to identify the duplexity of the modem. Full duplex is recommended.

If you are using a CIU, full duplex is required.

The equipment connect to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

10. Type **1** or **2** to identify your modem \leftarrow .
- 1** Indicates full duplex; the modem can transmit data in both directions at the same time.
 - 2** Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Description:

11. Type a description of the purpose of this circuit \leftarrow .

Is this circuit part of a clusternet? (Y/N):

12. Type **Y** or **N** at the clusternet prompt \leftarrow .
- Y** Indicates this circuit is part of a clusternet.
 - N** Indicates this circuit is not part of a clusternet; **skip to step 15.**


NOTE

If you type **Y** and are adding the first circuit of a clusternet, the next prompt appears. If you are adding another circuit to an existing clusternet, the clusternet number appears.

Clusternet number:

13. Type the number of the clusternet \leftarrow .

Confirm circuit information (Y/N):

14. Type **Y** or **N** at the "Confirm circuit information" prompt .
- Y** Adds the circuit information.
- N** Cancels the process.

Done.

Wrap-up

When you see the message "Done," you have added a manually dialed or a dedicated circuit to the IRS.

Example

This example shows adding a manually dialed circuit that is part of an existing clusternet. The circuit is using a full duplex modem operating at 3600 bits per second.

IRS!Add Circuit

Circuit types

- 1 X.25 SVC
- 2 Auto-dialed
- 3 Manually dialed
- 4 Dedicated

Enter choice number: **3**

Should this line be autostarted (Y/N): **Y**

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps
- 7 19200 bps
- 8 28800 bps
- 9 38400 bps
- 10 48000 bps
- 11 56000 bps

Enter choice number: **3**

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number: **1**

Description: **Dedicated to answer Portland calls**

Is this circuit part of a clusternet? (Y/N): **Y**

Clusternet number: 0-107

Circuit added to clusternet number 0-107

Confirm circuit information (Y/N): **Y**

Done.

IRS!

This example shows adding a dedicated circuit on the 873 CIU. The circuit is using the CIU for autostarting and it is not part of a clusternet.

IRS!Add Circuit

Circuit types

- 1 X.25 SVC
- 2 Auto-dialed
- 3 Manually dialed
- 4 Dedicated

Enter choice number: **4**

Port is connected to

- 1 a Xerox 873 Communication Interface unit
- 2 a Xerox 8000 Processor

Enter choice number: **1**

Select 873 Communication Interface unit that controls the port

- 1 Answer Seattle
- 2 Answer Bellevue

Enter choice number: **1**

Select port number

- 1 A1
- 2 A2
- 3 A3
- 4 A4

Enter choice number: **1**Should this line be autostarted (Y/N): **N**Should CIU be booted for this use (Y/N): **Y**

Select line speed

- 1 1200 bps
- 2 2400 bps
- 3 3600 bps
- 4 4800 bps
- 5 7200 bps
- 6 9600 bps

Enter choice number: **2**Description: **Dedicated to answer calls**Is this circuit part of a clusternet? (Y/N): **N**Confirm circuit information (Y/N): **Y**

Done.

IRS!

12. Interactive Terminal Service

This chapter contains the procedures you perform to set up the Interactive Terminal Service. These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Interactive Terminal Service setup procedures:

- Install the External Communication Service (ECS) software as described in the Server Software Installation chapter of this book.
- Perform the ECS setup procedure “Configuring ports for asynchronous terminal emulation and dial-in.” If necessary, perform the ECS setup procedure “Adding a Communication Interface Unit (CIU).” See the External Communication Service chapter of this book for more information.
- Install the Interactive Terminal Service (ITS) software as described in the Server Software Installation chapter of this book.
- Have handy the Interactive Terminal Service Worksheet. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed the completed copy in the *Activities Guide*.
- Install all required hardware for the communication activities you are setting up. See the Interactive Terminal Service and the External Communication Service chapters in the *Guide to System Administration Activities* for the communication hardware requirements.

Commands

Add File Drawer You use the File Service **Add File Drawer** command to create the ITS User Profiles drawer. You must be in the File Service context to access this command.

Available to the enabled user. Use this File Service command to add a file drawer named "ITS User Profiles" to a File Service that stores ITS user desktops.

Related procedure: Creating the ITS User Profiles drawer

The Interactive Terminal Service provides commands to maintain and use the service. See the Interactive Terminal Service chapter in the *Services Maintenance Guide* and the *Interactive Terminal Service User Guide* for more information.

Procedures

This section contains these procedures for setting up the Interactive Terminal Service:

Initializing the Interactive Terminal Service

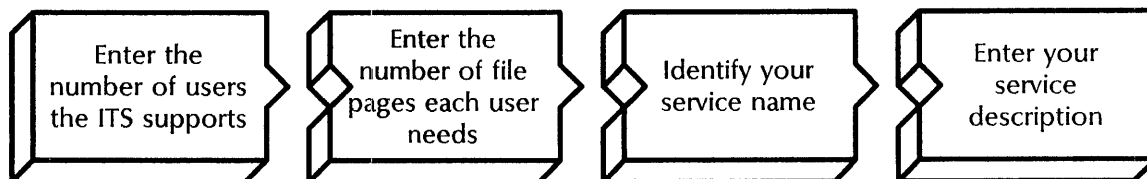
Use this procedure to identify the number of users the Interactive Terminal Service supports, the number of file pages each user needs, and to name and describe your service. This procedure registers the ITS in the Clearinghouse.

Creating the ITS User Profiles drawer

Use this procedure to add an ITS User Profiles drawer to each File Service supporting Interactive Terminal Service users.

Follow the procedures in the order they appear in this section.

Initializing the Interactive Terminal Service



Use this procedure to initialize the Interactive Terminal Service and register it in the Clearinghouse.

Prerequisites

See the Interactive Terminal Service Worksheet for the following information:

- The number of users this ITS will support
- The number of file pages each user will need
- The name of your service
- The description of your service

Step-by-step

Running Interactive Terminal Service.
Number of users allowed (1...8):

1. Immediately after installing the Interactive Terminal Service, type the number of users who may access the ITS at the same time

Number of file pages per user (0...1250):

2. Type the number of file pages each user needs .

Interactive Terminal Service is initialized.
Service name and description unknown.
Enter service name:

3. Type the name of your service .

Enter service description:

4. Type a brief description of your service .

Confirm? (Y/N):

5. Type **Y** or **N** at the "Confirm" prompt \Leftarrow .
 - Y** Registers the service in the Clearinghouse.
 - N** Cancels the process so you can begin again.

```
Validating Clearinghouse entry for <name:domain:org >
A new Clearinghouse entry was created.
Done
Interactive Terminal Service is started.
```

Wrap-up

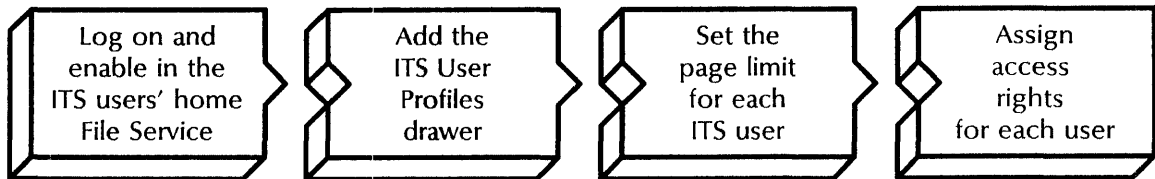
When you see the message "Interactive Terminal Service run," you have successfully registered the Interactive Terminal Service in the Clearinghouse. Perform the next procedure "Creating the ITS User Profiles drawer."

Example

This example shows registering the Interactive Terminal Service in the Clearinghouse.

```
Running Interactive Terminal Service.
Number of users allowed (1...8): 8
Number of file pages per user (0...1250): 2
Interactive Terminal Service is initialized.
Service name and description unknown.
Enter service name: Com3
Enter service description: FS3 ITS communication service
Confirm? (Y/N): Y
Validating Clearinghouse entry for Com3:domain:org
A new Clearinghouse entry was created.
Done
Interactive Terminal Service is started.
```

Creating the ITS User Profiles drawer



Use this procedure to create a file drawer named ITS User Profiles for the Interactive Terminal Service. This file drawer stores the values each ITS user sets during log off. The values include the user's current directory path, terminal options, and Print Service information.

NOTE

Add an ITS User Profiles drawer on each File Service that stores ITS user desktops.

Prerequisites

See the Interactive Terminal Service Worksheet for the following information:

- Whether the File Service is running on a multiple-drive or single-drive server
- If you are adding a drawer on a multiple-drive server, the volume name to use for the ITS User Profiles drawer
- The page requirements for your network
- The name of the user or group to whom you want to give access
- The access rights to give (read, write, add)

Step-by-step

1. At the server supporting the ITS users home File Service, log on and enable in the File Service context.
2. Type **Add File Drawer** .

```

Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:
  
```

3. If the File Service is running on a multiple-drive server, type the number for the File Service volume and press RETURN. If the File Service is running on a single-drive server, **skip to step 4**.

```
File drawer name:
```

4. Type **ITS User Profiles** .

Owner's name:

5. Type your name as the owner of this file drawer **↵**.

Page limit (type 0 for no limit) (0..2147483647):

6. Type the number of total pages you want to assign to the drawer **↵**.

Change Access List? (Y/N):

7. Type **Y** at the "Change Access List" prompt **↵**.
- Y** Lets you change the access rights for the ITS User Profiles drawer.
 - N** Does not let you change access rights.

Enter User, Alias, or Group Name:

8. Type the fully qualified name of the individual or group you want to have access to the ITS User Profiles drawer and press RETURN. You may use the wildcard symbol (*).

Permission to read? (Y/N):

9. Type **Y** at the "Permission to read" prompt **↵**.
- Y** Lets users read the files in the drawer.
 - N** Prevents read access.

Permission to write? (Y/N):

10. Type **Y** at the "Permission to write" prompt **↵**.
- Y** Lets users write to the files in the drawer.
 - N** Prevents write access.

Permission to add? (Y/N):

11. Type **Y** at the "Permission to add" prompt **↵**.
- Y** Lets users add files to the drawer.
 - N** Prevents add access.

Permission to remove? (Y/N):

12. Type **N** at the "Permission to remove" prompt **↵**.
- Y** Lets users remove files from the drawer.
 - N** Prevents remove access.

Permission to change the access list? (Y/N):

13. Type **N** to restrict users from making changes to this access list ↵.
- Y** Lets users change the access list.
 - N** Prevents users from making changes.

Make another change to access list? (Y/N):

14. Type **N** at the "Make another change to access list" prompt ↵.
- Y** Lets you make additional changes to the access list for this drawer; returns you to step 8.
 - N** Indicates the information is complete.

Done
FS!

15. Log off.

Wrap-up

When you see the second message "Done," you have successfully added an ITS User Profiles drawer to the File Service. The drawer is ready to store information users set as they log off the Interactive Terminal Service.

Example

This example shows adding the ITS User Profiles drawer and giving access rights to a sales group.

```
FS!Add File Drawer
  Select Volume
  1  Finance
  2  Planning
  Enter choice number: 2
  File Drawer Name: ITS User Profiles
  Owner's Name: Jim J. Jones
  Jim J. Jones:Sales:Dallas is granted full access.
  Page limit (type 0 for no limit) (0..2147483647): 200
  Change Access List? (Y/N): Y
  Enter User, Alias, or Group Name: Sales
    Permission to read? (Y/N): Y
    Permission to write? (Y/N): Y
    Permission to add? (Y/N): Y
    Permission to remove? (Y/N): N
    Permission to change the access list? (Y/N): N
  Make another change to access list? (Y/N): N
Done
FS!
```


This chapter contains the procedures you perform to set up the Remote Batch Service (RBS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Remote Batch Service setup procedures:

- Install all required software as described in the Server Software Installation chapter in this book.
- Have handy the Remote Batch Service Worksheet, which describes the service, the RS232C port information, and the RBS communication partner. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed a completed copy in the *Activities Guide*.
- Install all required hardware for the communications activities you are setting up. See the Remote Batch Service chapter in the *Guide to System Administration Activities* for the communications hardware requirements.

Commands

This section lists the commands you use to set up your Remote Batch Service.

Table 13-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 13-1. **Remote Batch Service Setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add File Drawer					•	•
Add Group					•	•
Add Member					•	
Add Partner					•	
Add Port					•	
Start Service						•
Stop Service					•	

Add File Drawer Available to the enabled user when the File Service is started or stopped. This File Service command creates two file drawers for the RBS.

Related procedure: Creating file drawers for the communication partner

Add Group Available to the enabled user when the Clearinghouse Service is started or stopped. This Clearinghouse Service command creates a user group for the RBS.

Related procedure: Creating a group for the Remote Batch Service

Add Member Available to the enabled user when the Clearinghouse Service is started. This Clearinghouse Service command adds members to the Remote Batch Service group.

Related procedure: Creating a group for the Remote Batch Service

Add Partner Available to the enabled user when the Remote Batch Service is started. Defines a communication partner for the RBS.

Related procedure: Adding a communication partner

Add Port Available to the enabled user when the Remote Batch Service is started and no port entry exists. Defines an RS232C port for the RBS.

Related procedure: Adding the port for the Remote Batch Service

Start Service Available to the enabled user when a service is stopped. Starts the currently loaded and stopped services you select.

Related procedure: Starting the Remote Batch Service

Stop Service Available to the enabled user when a service is started. Stops the currently loaded and started services you select.

Related procedure: Adding a communication partner

Procedures

This section contains these procedures for setting up the Remote Batch Service:

Initializing the Remote Batch Service

Use this procedure to identify your service name and description, and validate the Clearinghouse entry.

Adding the port for the Remote Batch Service

Use this procedure to define the communication parameters of the RS232C port.

Adding a communication partner

Use this procedure to add and define the RBS communication partners.

Creating a group for the Remote Batch Service

Use this procedure to add a group to the Clearinghouse Service.

Creating file drawers for the communication partner

Use this procedure to create two file drawers for each communication partner.

Starting the Remote Batch Service

Use this procedure to restart the service after you define the port and partner.

Perform the procedures in the order they appear in this chapter.

Initializing the Remote Batch Service

Use this procedure to name and describe the Remote Batch Service and register it in the Clearinghouse Service.

Prerequisites

See the Remote Batch Service Worksheet in your *Activities Guide* for the name and description of your Remote Batch Service.

Step-by-step

```
Initializing Remote Batch Service.
Service name and description unknown.
Enter service name:
```

1. Immediately after installing and running the Remote Batch Service, type the local name of the RBS and press RETURN. The domain and organization default to that of the server.

```
Enter service description:
```

2. Type the description of your service .

```
Confirm (Y/N):
```

3. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the service in the Clearinghouse.
 - N** Cancels the process. Return to step 1.

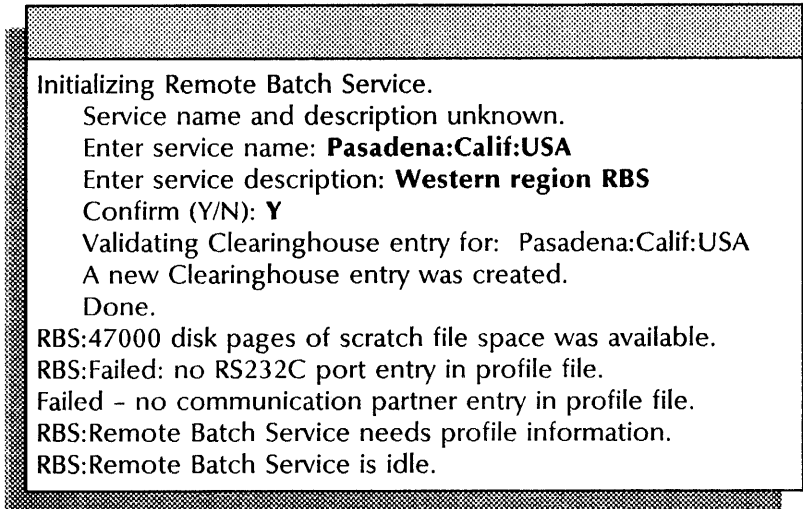
```
Validating Clearinghouse entry for: <name:domain:org >
A new Clearinghouse entry was created.
Done.
RBS: <number> disk pages of scratch file space was available
RBS: Failed: no RS232C port entry in profile file.
Failed - no communication partner entry in profile file.
RBS: Remote Batch Service needs profile information.
RBS: Remote Batch Service is idle.
```

Wrap-up

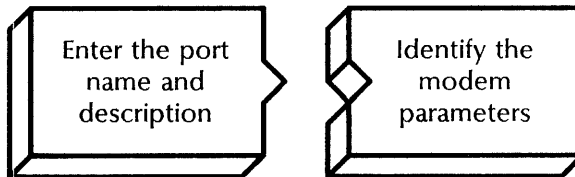
When you see the message "Remote Batch Service is idle," you have registered your Remote Batch Service in the Clearinghouse. Messages show the Remote Batch Service needs profile information and is now in the idle state.

Example

This screen shows initializing a Remote Batch Service for the western region.



Adding the port for the Remote Batch Service



Use this procedure to add and define the communication parameters of the RS232C port.

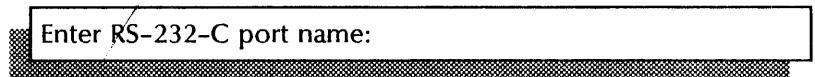
Prerequisites

See the Remote Batch Service Worksheet in your *Activities Guide* for the following information:

- The name and description of your local port
- The modem's line speed and duplexity
- Whether the modem has autodialer hardware
- Whether the line is autostarted

Step-by-step

1. Log on and enable in the Remote Batch Service context.
2. Type **Add Port** .



3. Type the name of the RS232C port .

Description:

4. Type a description of the purpose of this port .

The equipment connected to this port is

1 full duplex

2 half duplex

Enter choice number:

5. Type **1** or **2** to identify the duplexity of the modem attached to the RS232C port .

1 Indicates full duplex; the modem can transmit data in both directions at the same time.

2 Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Does this equipment have autodialer hardware (Y/N):

6. Type **Y** or **N** at the "autodialer" prompt .

Y Indicates that autodialing hardware is installed.

N Indicates that autodialing hardware is not installed.

Select line speed

1 1200 bps

2 2400 bps

3 3600 bps

4 4800 bps

5 7200 bps

6 9600 bps

Enter choice number:

7. Type the number for the line speed of the modem .

Should this line be autostarted (Y/N):

8. Type **Y** or **N** at the "Should this line be autostarted" prompt .

Y Automatically starts the line when the Remote Batch Service starts.

N Does not automatically start the line; lets other services share the local RS232C port.

NOTE

Other services may have an entry for this port, but only one can be autostarted. If you try to add another autostarted line, you see the message "Failed: another service is auto-starting local RS232C port. New entry not added to profile file (but old entry was deleted)."

If you select **N**, the RBS displays the informational message "WARNING - The port is not dedicated to RBS, conflicts may arise" when you start the service.

```
RBS: ...Done
RBS!
```

Wrap-up

When you see the message "RBS:...Done," you have successfully added and defined the local RS232C port for your Remote Batch Service. Perform the "Adding a communication partner" procedure next to add and define a communication partner.

Example

This example shows adding a port for the Remote Batch Service. The port is using a full duplex modem operating at 9600 bits per second.

RBS!Add Port

Enter RS-232-C port name: **RBSport**

Description: **2780 document interchange**

The equipment connected to this port is

1 full duplex

2 half duplex

Enter choice number: **1**

Does this equipment have autodialer hardware (Y/N): **N**

Select line speed

1 1200 bps

2 2400 bps

3 3600 bps

4 4800 bps

5 7200 bps

6 9600 bps

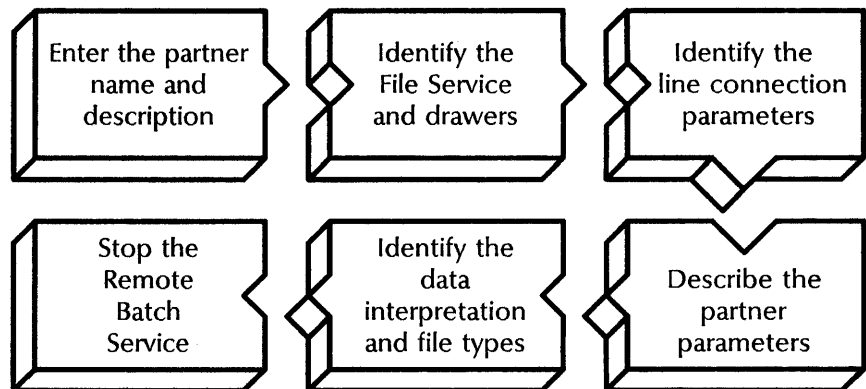
Enter choice number: **6**

Should this line be autostarted (Y/N): **N**

```
RBS: ...Done
```

```
RBS!
```

Adding a communication partner



Use this procedure to add and describe a communication partner. A communication partner is a mainframe or a word processor with which the RBS communicates.

Prerequisites

See the Remote Batch Service Worksheet in your *Activities Guide* for the following information:

- The name and description of the communication partner
- The name of the File Service where the input and output file drawers will be located
- The type of line the RBS is using
- Whether you want to restrict the hours of service operation; if you do, the time of day when service starts and ends
- If you are using a dial-out line:
 - the number of jobs waiting and how much time must pass before re-creating the connection
 - the phone number to dial and, optionally, the terminal identification and user password
- Whether you want to terminate an inactive connection and how many seconds should pass before termination
- Whether the Remote Batch Service responds as a primary or secondary station when requesting to transmit
- The emulated device and the maximum block size
- Whether the RBS is communicating with a mainframe or a word processor; if the RBS is communicating with a mainframe:
 - the mainframe spooling program
 - the statements for SIGNON and SIGNOFF
 - the initial bid response
- The default data interpretation
- Whether the partner expects print and punch output devices and the data interpretation for each
- Whether you want to use the default partner option

Step-by-step

1. Type **Add Partner** .

Use existing partners to supply default values? (Y/N):

2. Type **Y** or **N** at the prompt .

Y Presents default values if a communication partner has already been added.

N Does not present default values.

Enter name of communication partner:

3. Type the name of the communication partner .

Enter descriptive comment:

4. Type a description for this partner .

Enter name of file service:

NOTE

The File Service must be on the same internetwork as the Remote Batch Service; it may be on a different network.

5. Type the fully qualified name of the File Service in which the file drawers will reside .

NOTE

Both file drawers must be on the same File Service.

Enter name of file drawer for job submission:

6. Type the name of the first file drawer and press RETURN. Use a name that easily identifies the purpose of the drawer, such as Input Bin.

Enter minutes between checks of job submission file drawer (1..59):

7. Type the number of minutes between Remote Batch Service checks of the job submission file drawer for new jobs .

Enter name of file drawer for output retrieval:

8. Type the name of the second file drawer and press RETURN. Use a name that easily identifies the purpose of the drawer, such as Output Bin.

Select line usage

- 1 dedicated
- 2 automatic dialing
- 3 manual dialing
- 4 answer only

Enter choice number:

9. Type the number for the line usage .

Restrict hours of operation? (Y/N):

10. Type **Y** or **N** to restrict the hours of operation .

Y Automatically establishes and terminates connections with a host or word processor at a pre-selected time.

N Does not restrict the hours of operation. If you are using a dedicated line, **skip to step 21**. If not, **skip to step 13**.

Enter time of day when service begins operation (hh:mm):

11. Type the time you want to establish the connection (in 24-hour format) .

Enter the time of day when service ends operation (hh:mm):

12. Type the time you want to end the connection and press RETURN. If you are using a dedicated line, **skip to step 21**.

Re-create connection when how many jobs are waiting (1..32767):

13. Type the number of jobs that can be waiting before recreating a connection .

Re-create connection after how many minutes (1..59):

14. Type the number of minutes between connections .

Terminate connection if inactive for specified period? (Y/N):

15. Type **Y** or **N** at the "Terminate connection" prompt .

Y Drops the line connection after the period of inactivity you specify. **Continue with step 16**.

N Maintains the connection indefinitely. **Skip to step 17**.

Enter number of seconds of inactivity (15-32767):

16. Type the number of seconds to allow for inactivity ⇐.

Enter phone number to dial:

17. Type the phone number for dialing ⇐.

Specify terminal and user security identification? (Y/N):

18. Type **Y** or **N** to specify the terminal and user security identification ⇐.

Y Lets you specify the terminal and user security identification. **Continue with step 19.**

N Does not let you specify the terminal and user security identification. **Skip to step 21.**

Enter terminal identification:

19. Type the terminal identification ⇐.

Enter user security identification:

20. Type the user security identification ⇐.

Select station type

- 1 primary
- 2 secondary

Enter choice number: 2

21. Type the number for the station type ⇐.

Select device being emulated

- 1 2770
- 2 2780
- 3 3780

Enter choice number: 3

22. Type the number for the device being emulated ⇐.

Select device with which we are communicating

- 1 mainframe
- 2 word processor
- 3 IBM 5520 Processor

Enter choice number:

23. Type the number for the device with which you are communicating and press RETURN.
- If you are communicating with a mainframe, **continue with step 24.**
 - If you are emulating a 2770 Remote Batch Terminal that is not communicating with a mainframe, **skip to step 29.**
 - If you are communicating with a word processor or an IBM 5520 Processor, **skip to step 30.**

Select mainframe spooling program

- 1 JES (MVS)
- 2 POWER (DOS/VSE)
- 3 RSCS (VM/370)
- 4 Other

Enter choice number: 1

24. Type the number for the mainframe spooling program .

Send SIGNON and SIGNOFF? (Y/N):

25. Type **Y** or **N** to send SIGNON and SIGNOFF .
- Y** Lets you create the signals for the beginning or end of a session. **Continue with step 26.**
 - N** Does not let you create the signals. **Skip to step 28.**

Enter SIGNON statement:

26. Type a SIGNON statement .

Enter SIGNOFF statement:

27. Type a SIGNOFF statement .

Select initial bid response

- 1 WACK/ACK
- 2 NAK/ACK

Enter choice number:

28. Type the number for the initial bid response .

Select maximum block size

- 1 128
- 2 256
- 3 512

Enter choice number:

29. Type the number for the block size and press RETURN. The above prompt appears only if you are communicating with a 2770 mainframe.

Select default interpretation of data received

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number:

30. Type the number for the default interpretation of the data you will receive and press RETURN. If you select 4, **continue with step 31**. If not, **skip to step 33**.

Select File Type for file received

- 1 Text (tText)
- 2 Unspecified (tUnspecified)
- 3 User defined (numeric value)

Enter choice number:

31. Type the number for the file type for the file received and press RETURN. If you select 3, **continue with step 32**. If not, **skip to step 33**.

Enter Numeric value for file Type: (0..2147483647):

32. Type a numeric value for the file type .

Expect component selection code (DCn) to precede data received? (Y/N):

33. Type **Y** or **N** if you expect the component selection code to precede data received .

Y The partner expects two output devices: a line printer and a card punch; **perform steps 34 through 35**.

N Does not define output devices; **skip to step 36**.

Select interpretation of print (DC1) data

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number:

34. Type the number for interpretation of the print data .

Select interpretation of punch (DC2) data

- 1 interpret as DP
- 2 interpret as WP
- 3 interpret as XNS
- 4 uninterpreted (unknown format)

Enter choice number:

35. Type the number for interpretation of the punch data .

Allow to insert ETX at end of each sending file? (Y/N):

36. Type **Y** or **N** at the prompt \Leftarrow .

- Y** Sends files to the mainframe with file separators (ETX) between them.
- N** Sends files without file separators.

Default partner option? (Y/N):

37. Type **Y** or **N** at the "Default partner option" prompt \Leftarrow .

- Y** Starts this partner when you start the Remote Batch Service.
- N** Does not start this partner.

RBS: ...Done
RBS!

38. Type **Stop Service** \Leftarrow .

Select choices
1 Remote Batch Service
Enter one or more choices:

39. Type the number for the Remote Batch Service \Leftarrow .

RBS: Stop immediately? (Y/N):

40. Type **Y** or **N** \Leftarrow .

- Y** Disconnects all logged on users and immediately stops the service. Any files in the receive queue not yet copied to the output file drawer are lost.
- N** Waits for logged on users to complete their sessions before stopping the service.

Stopping Remote Batch Service.
RBS!

Wrap-up

When you see the message "RBS: Remote Batch Service is stopped," you have successfully added and defined a communication partner for the Remote Batch Service. Next add a group for the Remote Batch Service in the Clearinghouse Service by performing the "Creating a group for the Remote Batch Service" procedure.

Example

This example shows adding a communication partner for the Remote Batch Service. The port is using a full duplex modem operating at 9600 bits per second. A 3780 mainframe is being emulated.

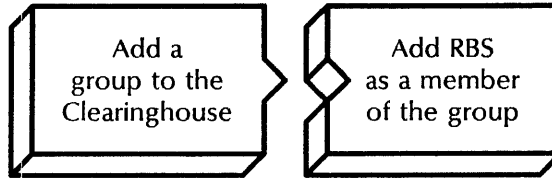
RBS!Add Partner

Use existing partners to supply default values? (Y/N): **N**
Enter name of communication partner: **Melrose**
Enter descriptive comment: **2770/2780/3780 document interchange**
Enter name of file service: **FS:California:USA**
Enter name of file drawer for job submission: **Input Bin**
Enter minutes between checks of job submission file drawer (1..59): **1**
Enter name of file drawer for output retrieval: **Output Bin**
Select line usage
1 dedicated
2 automatic dialing
3 manual dialing
4 answer only
Enter choice number: **2**
Restrict hours of operation? (Y/N): **Y**
Enter time of day when service begins operation (hh:mm): **18:00**
Enter time of day when service ends operation (hh:mm): **07:15**
Re-create connection when how many jobs are waiting (1..32767): **5**
Re-create connection after how many minutes (1..59): **15**
Terminate connection if inactive for specified period? (Y/N): **Y**
Enter number of seconds of inactivity (15-32767): **60**
Enter phone number to dial: **7929234**
Specify terminal and user security identification? (Y/N): **Y**
Enter terminal identification: **TID**
Enter user security identification: **USID**
Select station type
1 primary
2 secondary
Enter choice number: **2**
Select device being emulated
1 2770
2 2780
3 3780
Enter choice number: **3**
Select device with which we are communicating
1 mainframe
2 word processor
3 IBM 5520 Processor
Enter choice number: **1**

Screen continued

```
Select mainframe spooling program
1  JES (MVS)
2  POWER (DOS/VSE)
3  RSCS (VM/370)
4  Other
Enter choice number: 1
Send SIGNON and SIGNOFF? (Y/N): Y
Enter SIGNON statement: /*SIGNON REMOTE 23
Enter SIGNOFF statement: /*SIGNOFF
Select initial bid response
1  WACK/ACK
2  NAK/ACK
Enter choice number: 2
Select default interpretation of data received
1  interpret as DP
2  interpret as WP
3  interpret as XNS
4  uninterpreted (unknown format)
Enter choice number: 4
Select File Type for file received
1  Text (tText)
2  Unspecified (tUnspecified)
3  User defined (numeric value)
Enter choice number: 1
Expect component selection code (DCn) to precede data received? (Y/N): Y
Select interpretation of print (DC1) data
1  interpret as DP
2  interpret as WP
3  interpret as XNS
4  uninterpreted (unknown format)
Enter choice number: 2
Select interpretation of punch (DC2) data
1  interpret as DP
2  interpret as WP
3  interpret as XNS
4  uninterpreted (unknown format)
Enter choice number: 3
Allow to insert ETX at end of each sending file?(Y/N): N
Default partner option? (Y/N): N
RBS: ...Done
RBS!Stop Service
  Select choices
  1  Remote Batch Service
  Enter one or more choices: 1
RBS: Stop immediately? (Y/N): N
Stopping Remote Batch Service.
RBS!
```

Creating a group for the Remote Batch Service



Use this procedure to add a group to the Clearinghouse Service. Then add the RBS as a member of this group with access to the file drawers.

Prerequisites

See the Remote Batch Service Worksheet in your *Activities Guide* for the name of the group you want to assign to the Remote Batch Service.

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Add Group** \Leftarrow .

Name:

3. Type the name of the group you want to add \Leftarrow .

Description:

4. Type a description of the group \Leftarrow .

Done. < group name:domain:organization > (Group) added.
CHS!

5. Type **Add Member** \Leftarrow .

Group:

6. Type the name of the group you just added \Leftarrow .

Member:

7. Type the local name of the Remote Batch Service to add it as a member of the group \Leftarrow .

Done. < member name:domain:organization > added to
< group name:domain:organization >
Add another Member? (Y/N):

8. Type **Y** or **N** at the "Add another Member" prompt .
- Y** Lets you add another member. Return to step 7.
- N** Ends the process.

```
Done.  
CHS!
```

Wrap-up

When you see the message "Done," you have added the Remote Batch Service as a member of a user group in the Clearinghouse. See the "Creating file drawers for the communication partner" procedure to add two file drawers in the File Service.

Example

This example shows adding the user group DocSupport. The Remote Batch Service was added as a group member.

```
CHS!Add Group  
Name: DocSupport:Calif:USA  
Description: California archive facility  
Done. DocSupport:Calif:USA (Group) added.  
CHS!Add Member  
Group: DocSupport:Calif  
Member: Pasadena:Calif:USA  
Done. Pasadena:Calif:USA added to  
DocSupport:Calif:USA.  
Add another Member? (Y/N): N  
Done.  
CHS!
```

Creating file drawers for the communication partner



Create the file drawers for data input and output

Set the access rights for each drawer

Use this procedure to create two file drawers for the communication partner.

Prerequisites

See the Remote Batch Service Worksheet in your, *Activities Guide* for the following information:

- The name of the file drawers to use for input and output
- The name of the owner of the drawers
- The file drawer page limits
- The access rights

Step-by-step

1. Log on and enable in the File Service context.
2. Type **Add File Drawer** .

```
Select Volume
1 <volume name>
2 <volume name>
3 <volume name>
Enter choice number:
```

3. If the File Service is running on a multiple-drive server, type the number for the File Service volume and press RETURN. If the File Service is running on a single-drive server, **skip to step 4**.

```
File drawer name:
```

4. Type the name of the file drawer and press RETURN. The name may be up to 100 characters long, and must be different from all other names on the volume. Use a name that easily identifies the purpose of this drawer, such as Input Bin.

```
Owner's name:
```


5. Type the name of the file drawer owner and press RETURN. Unless you specify the domain and organization, they default to that of the server. The owner has full access to the drawer by default.

Page limit (type 0 for no limit) (0..2147483647):

6. Type the number of disk pages you want to assign to the drawer .

< name:domain:organization > is granted full access.
Change Access List? (Y/N):

7. Type **Y** to change the access list attributes for the drawer .
- Y** Lets you assign access rights to the drawer.
- N** Does not let you assign access rights.

Enter User, Alias, or Group Name:

8. Type the fully qualified name of the group you want to have access to the drawer and press RETURN. You may use the wildcard symbol (*).

Adding new name to access list
Permission to read? (Y/N):

9. Type **Y** at the "Permission to read" prompt and press RETURN; or simply press RETURN.
- Y** Gives each user the ability to read the files in the drawer.
- N** Prevents read access.

Permission to write? (Y/N):

10. Type **Y** at the "Permission to write" prompt .
- Y** Lets users write to the files in the drawer.
- N** Prevents write access.

Permission to add? (Y/N):

11. Type **Y** at the "Permission to add" prompt .
- Y** Lets users add files to the drawer.
- N** Prevents add access.

Permission to remove? (Y/N):

12. Type **Y** at the "Permission to remove" prompt **⇐|**.
- Y** Lets users remove files from the drawer
 - N** Prevents remove access.

Permission to change the access list? (Y/N):

13. Type **N** to prevent users from changing this access list **⇐|**.
- Y** Lets users change the access list.
 - N** Prevents users from making changes.

Make another change to access list? (Y/N):

14. Type **Y** or **N** at the "Make another change to access list" prompt **⇐|**.
- Y** Lets you make additional changes to the access list for this drawer.
 - N** Ends the process.

Done
FS!

15. Repeat steps 2 through 14 to add the file drawer you want to use for data output.

Wrap-up

When you see the message "Done," you have added two file drawers for document exchange, which are accessible to all members of the group.

Perform the "Starting the Remote Batch Service" procedure next to restart the Remote Batch Service and complete the setup process.

Example

The following example shows creating the input and output file drawers on a single-drive server.

```
FS!Add File Drawer
File drawer name: Input Bin
Owner's name: Jon Jones
Page limit (type 0 for no limit) (0..2147483647): 0
Jon Jones:California:USA is granted full access.
Change Access List? (Y/N): Y
Enter User, Alias, or Group Name: Pasadena:Calif:USA
Adding new name to access list
  Permission to read? (Y/N): Y
  Permission to write? (Y/N): Y
  Permission to add? (Y/N): Y
  Permission to remove? (Y/N): Y
  Permission to change the access list? (Y/N): N
Make another change to access list? (Y/N): N
Done
FS!Add File Drawer
File drawer name: Output Bin
Owner's name: Jon Jones
Page limit (type 0 for no limit) (0..2147483647): 0
Jon Jones:California:USA is granted full access.
Change Access List? (Y/N): Y
Enter User, Alias, or Group Name: Pasadena:Calif:USA
Adding new name to access list
  Permission to read? (Y/N): Y
  Permission to write? (Y/N): Y
  Permission to add? (Y/N): Y
  Permission to remove? (Y/N): Y
  Permission to change the access list? (Y/N): N
Make another change to access list? (Y/N): N
Done
FS!
```

Starting the Remote Batch Service



Use this procedure to restart the Remote Batch Service and complete the setup process.

Prerequisites

See the Remote Batch Service Worksheet in your *Activities Guide* for the following information:

- The name of the communication partner
- Whether you selected the default partner option when you added a communication partner

Step-by-step

1. Log on and enable.
2. Type **Start Service** .

```
Select choices
1 Remote Batch Service
Enter one or more choices:
```

3. Type the number for the Remote Batch Service .

```
Starting Remote Batch Service.
Validating Clearinghouse entry for: <name:domain:org>
Done
RBS: <number> disk pages of scratch file space was available
Default partner option:NO
```

If the Default partner option is YES, **skip to step 6**. If NO, **continue with step 4**.

```
More than one communication partner exists. Select one of
them.
1 <partner name>
2 <partner name>
Enter choice number:
```

4. If you added several communication partners, type a number to select one of them .

```
Communication partner: <partner name>
RBS: Remote Batch Service is started.
```

5. Log off. **Skip to the wrap-up section.**

```
Default partner option: YES
Communication partner: <partner name >.
Default partner option (answer within 30 sec.)? (Y/N):
```

6. Type **Y** or **N** at the "Default partner option" prompt **↵**.
- Y** Starts the RBS and the partner you identified as the default partner.
 - N** Does not start the RBS with the default partner.

```
More than one communication partner exists. Select one of
them.
1 <partner name >
2 <partner name >
Enter choice number:
```

7. Type the number for the communication partner **↵**.

```
Communication partner: <partner name >
RBS: Remote Batch Service is started.
RBS!
```

8. Log off.

Wrap-up

When you see the message "Remote Batch Service is started," you have set all the configuration parameters.

Example

This example shows starting the Remote Batch Service when the default partner option is enabled and several communication partners exist.

```
RBS!Start Service
Select choices
1 Remote Batch Service
Enter one or more choices: 1
Starting Remote Batch Service.
Validating Clearinghouse entry for: Pasadena:Calif:USA
Done.
RBS:4000 disk pages of scratch file space was available.
Default partner option:YES
Communication partner: Hawthorne
Communicating with IBM mainframe in 3780 mode.
Default partner option (answer within 30 sec.)? (Y/N): N
More than one communication partner exists. Select one of them.
1 Hawthorne
2 Melrose
3 California
Enter choice number: 2
Communication partner: Melrose
RBS: Remote Batch Service is started.
RBS!
```

This chapter contains the procedures you perform to set up the 850/860 Gateway Service (GWS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any 850/860 Gateway Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Have handy the 850/860 Gateway Service Worksheet, which describes your server, defines the equipment attached to the port, and identifies the mail clerk. You filled out this worksheet when you read the *Guide to System Administration Activities* and placed a completed copy in the *Activities Guide*.

Commands

This section lists alphabetically the commands you use to set up the 850/860 Gateway Service. You must be in the proper context to access these commands.

Table 14-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 14-1. Gateway Service setup commands

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Configuration					•	
Add Mailbox (MS)					•	•
Add User (CHS)					•	•
Start						•
Stop					•	

Add Configuration Available to the enabled user when the 850/860 Gateway Service is started. Defines the configuration of the 850/860 Gateway Service.

Related procedure: Configuring a local port

Add Mailbox Available to the enabled user when the Mail Service is started or stopped. This Mail Service command assigns a mailbox to the mail clerk.

Related procedure: Giving your clerk a mailbox

Add User Available to the enabled user when the Clearinghouse Service is started or stopped. This Clearinghouse Service command identifies your mail clerk.

Related procedure: Adding a mail clerk

Start Available to the enabled user when the 850/860 Gateway Service is stopped. Restarts the 850/860 Gateway Service.

Related procedure: Configuring a local port

Stop Available to the enabled user when the 850/860 Gateway Service is started. Stops the 850/860 Gateway Service.

Related procedure: Configuring a local port

Procedures

This section contains these procedures for setting up the 850/860 Gateway Service:

Initializing the 850/860 Gateway Service

Use this procedure to identify the service name and description, and to validate the Clearinghouse entry.

Adding a mail clerk

Use this procedure to add your mail clerk as a user to the Clearinghouse Service.

Giving your clerk a mailbox

Use this procedure to assign a mailbox to your clerk through the Mail Service.

Configuring a local port

Use this procedure to identify your mail clerk and define the data transmission equipment connected to the local port.

Follow the procedures in the order they appear in this section.

Initializing the 850/860 Gateway Service

Use this procedure to identify your service name and description, and create a Clearinghouse entry for it.

Prerequisites

See the 850/860 Gateway Service Worksheet in your *Activities Guide* for the name and description of the 850/860 Gateway Service.

Step-by-step

```
Running Gateway Service.
Gateway Service is starting.
  Service name and description unknown.
  Enter service name:
```

1. Immediately after installing and running the 850/860 Gateway Service, type the local name of the 850/860 GWS and press RETURN. The domain and organization default to those of the server.

```
Enter service description:
```

2. Type a description of the 850/860 GWS .

The service description should identify the location, purpose, and any other information such as any specific answering instructions.

NOTE

```
Confirm? (Y/N):
```

3. Type **Y** or **N** at the "Confirm" prompt .
 - Y** Registers the service in the Clearinghouse.
 - N** Return to step 1.

```
Validating Clearinghouse entry for <name:domain:org>
A new Clearinghouse entry was created.
Done
No configuration data exists.
Gateway Service is started.
Gateway Service run.
```

Wrap-up

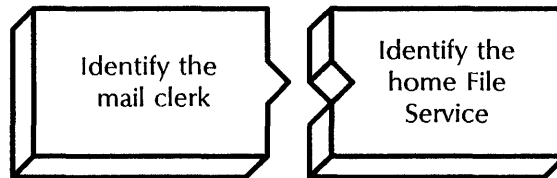
When you see the message "Gateway Service run," the 850/860 GWS has been registered in the Clearinghouse. Now perform the "Adding a mail clerk" procedure.

Example

This example shows initializing the 850/860 Gateway Service.

```
Running Gateway Service.
Gateway Service is starting.
Service name and description unknown.
Enter service name: Sales1
Enter service description: Answer all calls 777-1221
Confirm (Y/N): Y
Validating Clearinghouse entry for Sales:North:Region1
A new Clearinghouse entry was created.
Done.
No configuration data exists.
Gateway Service is started.
Gateway Service run.
```

Adding a mail clerk



Use this procedure to specify the name of the person who checks the mailbox and forwards 850/860 mail to network users. Also, use this procedure if you are adding a different name for this individual to use when acting as mail clerk. If not, skip to the "Configuring a local port" procedure.

Prerequisites

See the 850/860 Gateway Service Worksheet in your *Activities Guide* for the following information:


- The mail clerk's name, password, and aliases



The 850 mail clerk can only enter a total of 11 characters during logon for both their name and password. A mail clerk trying to access the GWS using a longer name is not granted access.

- The name of the "home" File Service

Step-by-step

1. Log on and enable in the Clearinghouse Service context.
2. Type **Add User** .

First Name (and Middle Name, if desired):

3. Type the name of the mail clerk .

Last Name:

4. Type the last name of the mail clerk .

Password:

5. Type the mail clerk's password .

Description:

6. Type a description identifying the purpose of this user .

"Home" File Service:

7. Type the name of the home File Service .

Alias:

8. Type any aliases the mail clerk uses .

NOTE

The "Alias" prompt reappears until you simply press RETURN.

Confirm this User information? (Y/N):

9. Type **Y** or **N** at the "Confirm this User information" prompt .

Y Adds the mail clerk to the Clearinghouse.

N Cancels the process so you can begin again.

Done. <name:domain:org> (User) added.
Add another User? (Y/N):

10. Type **Y** or **N** at the "Add another User" prompt .

Y Lets you add another user.

N Ends the procedure.

CHS!

11. Log off.

Wrap-up

When you see the message "Done," the mail clerk has been added to the Clearinghouse. Now perform the "Giving your clerk a mailbox" procedure.

Example

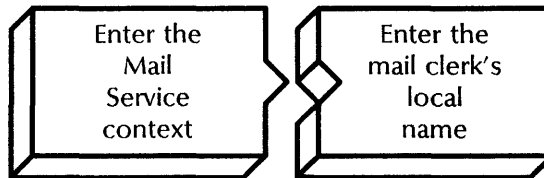
This example shows adding a mail clerk.

```

CHS!Add User
  First Name (and Middle Name, if desired): John
  Last Name: Jones
  Password: *****
  Description: 850/860 Mail Clerk
  "Home" File Service: Foxdale
  Alias: Jones
  Alias:
  Confirm this User information? (Y/N):Y
  Done. John Jones:North:Region1 (User) added.
  Add another User? (Y/N)?: N
CHS!

```

Giving your clerk a mailbox



Use this procedure to assign a mailbox to your mail clerk. Also, use this procedure if you are adding a different name for this individual to use when acting as mail clerk. If not, perform the "Configuring a local port" procedure.

Prerequisites

See the 850/860 Gateway Service Worksheet in your *Activities Guide* for the name of the mail clerk.

Step-by-step

1. Log on and enable in the Mail Service context.
2. Type **Add Mailbox** .

Name:

3. Type the local name of the mail clerk and press RETURN. The domain and organization default to those of the 850/860 Gateway Service.

```
Adding mail box <name:domain:organization >
Confirm? (Y/N):
```

4. Type **Y** or **N** at the "Confirm" prompt \Leftarrow .
 - Y** Adds the mailbox in the Mail Service.
 - N** Cancels the process so you can begin again.



If you enter the name of an existing mailbox, you see the message "Warning: Mailbox is registered on another server." You must indicate if you want the mailbox moved to this server or cancel the process to enter a different name.

```
Done.
MS!
```



In most cases, the mailbox is added within minutes. However, it may take as long as two days for the information to propagate through more than one Clearinghouse Service.

5. Log off.

Wrap-up

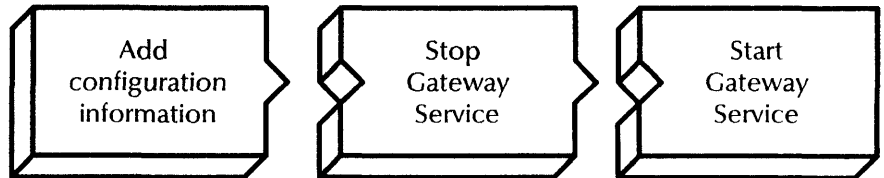
When you see the message "Done," you have assigned a mailbox to your clerk in the Mail Service. Now perform the "Configuring a local port" procedure.

Example

This example shows assigning a mailbox in the Mail Service.

```
MS!Add Mailbox
Name: John Jones
Adding mail box John Jones:North:Region1
Confirm? (Y/N): Y
Done.
MS!
```

Configuring a local port



This procedure lets you identify your mail clerk and describe your modem for the 850/860 Gateway Service.



The 850/860 Gateway Service requires the dedicated use of the local RS232C port. If another service is using the port, the message "There is already an active entry assigned to this RS232C port" appears. Use the **List All RS232C Ports** command to avoid this conflict.

Prerequisites

See the 850/860 Gateway Service Worksheet in your *Activities Guide* for the following information:

- The name, domain, and organization of the mail clerk
- Whether the modem attached to the port is full or half duplex
- The line speed of the modem

Step-by-step

1. Log on and enable in the 850/860 Gateway Service context.
2. Type **Add Configuration** .

Enter mail clerk name:

3. Type the local name of the mail clerk .

Enter mail clerk domain:



The mail clerk's domain and organization must be the same as those of the 850/860 Gateway Service.

4. Type the domain for the mail clerk .

Enter mail clerk organization:

5. Type the organization for the mail clerk .

The equipment connected to this port is

- 1 full duplex
- 2 half duplex

Enter choice number:

6. Type **1** or **2** to identify your modem **↵**.

- 1 Indicates full duplex; the modem can transmit data in both directions at the same time.
- 2 Indicates half duplex; the modem can transmit data in both directions, but not at the same time.

Select line speed

- 1 300 bps
- 2 600 bps
- 3 1200 bps
- 4 2400 bps
- 5 3600 bps
- 6 4800 bps
- 7 7200 bps
- 8 9600 bps

Enter choice number:

7. Type the number that identifies the line speed of the modem **↵**.

Done.
GWS!

8. Type **Stop** **↵**.

Disconnect active users? (Y/N):

9. Type **Y** or **N** at the "Disconnect active users" prompt **↵**.

Y Stops the service immediately.

N Stops the service after all current activity is complete.

Done.
Gateway Service is stopped.

10. Type **Start** **↵**.

Gateway Service is started.

11. Log off.

Wrap-up

When you see the message "Gateway Service is started," you have successfully defined the local port.

Example

This example shows configuring the local port for the 850/860 Gateway Service.

GWS!Add Configuration

Enter mail clerk name: **John Jones**

Enter mail clerk domain: **North**

Enter mail clerk organization: **Region1**

The equipment connected to this port is

1 full duplex

2 half duplex

Enter choice number: **1**

Select line speed

1 300 bps

2 600 bps

3 1200 bps

4 2400 bps

5 3600 bps

6 4800 bps

7 7200 bps

8 9600 bps

Enter choice number: **3**

Done.

GWS! **Stop**

Disconnect active users? (Y/N): **N**

Done.

Gateway Service is stopped.

GWS! **Start**

Gateway Service is started.

GWS!

This chapter contains the procedures you perform to set up the Server Monitor Service (SMS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Server Monitor Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Have handy the Server Monitor Service Worksheet, which describes the servers you want to monitor. You filled out this worksheet as you read the *Guide to System Administration Activities* and placed the completed copy in the *Activities Guide*.

Commands

This section lists the commands you use to set up your Server Monitor Service. You must be in the Server Monitor Service context to access these commands.

Table 15-1 shows the Server Monitor Service commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 15-1. **Server Monitor Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Monitored Server					•	
Show Server Monitor Configuration	•	•	•	•	•	•

Add Monitored Server Available to the enabled user when the service is started. Adds a monitored server to the Server Monitor Service configuration file (database).

Related procedure: Configuring the Server Monitor Service database

Show Server Monitor Configuration Available to any user when the service is started or stopped. Lists the servers that the SMS is monitoring and the users to notify about each server's availability.

Related procedure: Configuring the Server Monitor Service database

Procedures

This section contains these procedures for setting up the Server Monitor Service:

Initializing the Server Monitor Service

Use this procedure to start the Server Monitor Service. You do not name this service, because it is not registered with the Clearinghouse.

Configuring the Server Monitor Service database

Use this procedure to enter data in the Server Monitor Service database. This database contains the name of each server, its polling rate, and a list of the users to notify if availability changes.

Perform these procedures in the order they appear in this chapter.

Initializing the Server Monitor Service

Use this procedure to start the Server Monitor Service for the first time. The Server Monitor Service is not registered with the Clearinghouse. You must keep your own records regarding the servers that are running the Server Monitor Service.



You can use the Services System Software **Start Service** command to start the Server Monitor Service; however, this command always starts the SMS with the local database. To use this command, you do not need to be in the Server Monitor Service context, but you do need to be enabled as System Administrator.

Step-by-step

Restore configuration from backup? (Y/N):

1. Immediately after installing and running the Server Monitor Service, type **N** at the “Restore configuration from backup” prompt **↵**.

Y Starts the service using an existing database configuration file.

N Starts the service without using a configuration file.

This Server Monitor does not have a configuration of servers to monitor.

This Server Monitor is now started.

Server Monitor Service run.

Wrap-up

When you see the “Server Monitor Service run” message, you have started the Server Monitor Service; however, it is unable to monitor any servers yet. Perform the next procedure to create the configuration file and identify those servers you want to monitor.

Example

This example shows starting the Server Monitor Service for the first time.

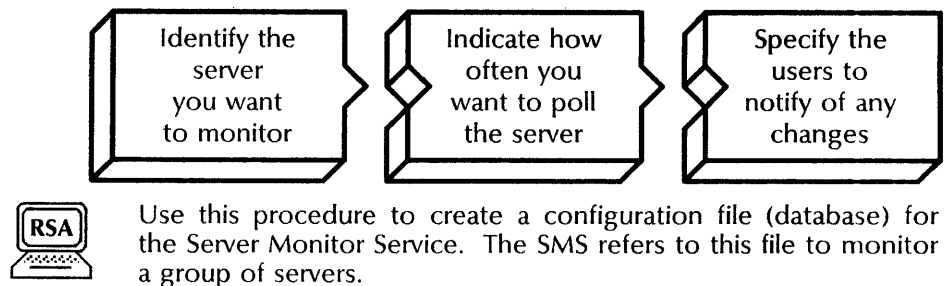
Restore configuration from backup? (Y/N): **N**

This Server Monitor does not have a configuration of servers to monitor.

This Server Monitor is now started.

Server Monitor Service run.

Configuring the Server Monitor Service database



Prerequisites

See the Server Monitor Service Worksheet in your *Activities Guide* for the following information:

- The name of the server you want the SMS to monitor
- How often you want the SMS to poll the monitored server
- The fully qualified name of each user you want to notify of any change in the monitored server

Step-by-step

1. Log on and enable in the Server Monitor Service context.
2. Type **Add Monitored Server** .

Server name:

3. Type the name of the server you want to monitor .

NOTE

If you are monitoring a server in a different domain, enter the fully qualified name of the server.

Sampling rate in minutes (15-32767):

4. Type the number indicating how often (in minutes) you want the monitored server to be polled .

User's name:

5. Type the name of the user you want to notify of any change in the monitored server .

Immediate notification? (Y/N):

6. Type **Y** or **N** at the "Immediate notification" prompt .

Y Displays a message at the monitoring server and sends a mail note to users you specify.

N Displays a message at the monitoring server and sends a mail note to users you specify.



If the workstation you specify is equipped with the special tools provided by the Xerox Development Environment (XDE), a message appears on the workstation screen to notify the user of any change in the monitored server.

Notify another user? (Y/N):

7. Type **Y** or **N** at the "Notify another user" prompt **↵**.

Y Lets you add another user by repeating steps 5 and 6.

N Does not allow you to add another user at this time.



You can use the **Add User Notification** command to add a user later.

Confirm (Y/N):

8. Type **Y** or **N** at the "Confirm" prompt **↵**.

Y Adds the information to the SMS configuration file.

N Cancels the process so you can begin again.

Done.

Add another monitored server? (Y/N):

9. Type **Y** or **N** at the "Add another monitored server" prompt **↵**.

Y Lets you add another monitored server by repeating steps 3 through 8.

N Ends the process.



The SMS now adds the server to the configuration file and tries to register with the server as an event recipient. If registration fails, you see the message "Added but register failed. Server not responding. Retry later with Verify Monitored Server command." The monitored server is part of the configuration file and will be monitored; however, unless you use this command, the server monitor will not receive event reports.

10. Type **Show Server Monitor Configuration** **↵**.

<name:domain:organization> (Net <number>, Processor <number>)*

Sampling rate (in minutes): <rate>

User's name: <user>

Workstation address: <address>

Wrap-up

When you see the second "SMS!" prompt, you have added a specific server to the local database that the SMS uses to determine the servers to monitor. You can store this information remotely. Perform the procedure "Backing up a Monitored Server configuration" as described in the Server Monitor Service chapter of the *Backup and Restore Guide* to backup the SMS database.

Example

This example shows adding a server to the database. The SMS will poll this server every 15 minutes and report any changes in availability to two users on the network.

```
SMS!Add Monitored Server
Server name: FS
Sampling rate in minutes (15-32767): 15
User's name: John Jones:Pasadena:Calif
Immediate notification? (Y/N): N
Notify another user? (Y/N): Y
User's name: Mary Adams
Immediate notification? (Y/N): N
Notify another user? (Y/N): N
Confirm (Y/N): Y
Done.
Add another monitored server? (Y/N): N
Done.
SMS!Show Server Monitor Configuration
FS:Pasadena:Calif (Net 60, Processor 32-445)*
Sampling rate (in minutes): 15
User's name: John Jones:Pasadena:Calif
User's name: Mary Adams:Pasadena:Calif
SMS!
```


This chapter contains the procedures you perform to set up your Boot Service. These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Boot Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Have handy the Boot Service Worksheet. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed a completed copy in the *Activities Guide*.
- Locate the installation media containing the Etherboot files. These files include the database boot files and the configuration profile. See the *Guide to System Administration Activities* to determine your installation media.

Commands

This section lists the commands you use to set up the Boot Service. You must be in the proper service context to access these commands.

Table 16-1 shows the commands along with the logged on status and the service state (started or stopped) for accessing them.

Table 16-1. **Boot Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Add Alias					•	•
Add File Drawer					•	•
Install Etherboot Files					•	•
Retrieve Floppy Files					•	•
Start Service						•
Stop Service					•	

Add Alias Available to the enabled user when the service is started or stopped. Use this Clearinghouse Service command to register an alternate name for the File Service you use to store the workstation software.

Related procedure: Preparing for network installation of workstation software

Add File Drawer Available to the enabled user when the service is started or stopped. Use this File Service command to create a file drawer users can access to download software to their workstations.

Related procedure: Preparing for network installation of workstation software

Install Etherboot Files Available to the enabled user when the service is started or stopped. Installs the Etherboot files on the working directory of an 8090 server.

Related procedure: Installing the Boot Service database

Retrieve Floppy Files Available to the enabled user when the service is started or stopped. Installs the Standard Etherboot Files on the working directory of an 8000 server.

Related procedure: Installing the Boot Service database

Start Service Available to the enabled user when the Boot Service is stopped. Restarts the Boot Service. Starting the Boot Service causes it to validate the database with the data in the server profile. You cannot modify the Boot Service database after you start the Boot Service.

Related procedure: Installing the Boot Service database

Stop Service Available to the enabled user when the Boot Service is started. Stops a currently installed and started Boot Service so you can modify the database.

Related procedure: Installing the Boot Service database

Procedures

This section contains these procedures for setting up the Boot Service:

Initializing the Boot Service

Use this procedure to identify your service name and description, and to validate the Clearinghouse entry.

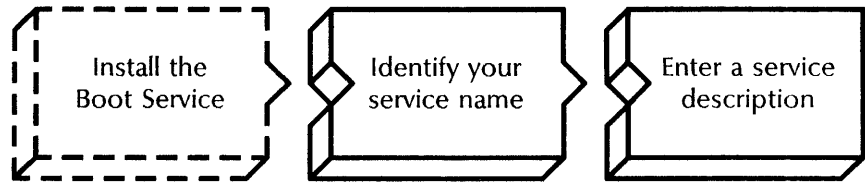
Installing the Boot Service database

Use this procedure to install the Etherboot files in the server's working directory.

Preparing for network installation of workstation software

Use this procedure to set up an alias at the Clearinghouse and to create two file drawers at the File Service. After you perform this procedure, you can install workstation software over the network.

Initializing the Boot Service



Use this procedure to identify your service name and description, and register it in the Clearinghouse.

Prerequisites

See the Boot Service Worksheet for name and description of your service.

Step-by-step

```
Running Boot Service.
BS: Service name and description unknown.
Enter service name:
```

1. Immediately after installing the Boot Service, type the name of your service .

```
Enter service description:
```

2. Type a brief description of your service .

```
Confirm (Y/N):
```

3. Type **Y** at the "Confirm (Y/N)" prompt .
 - Y** Registers the service in the Clearinghouse.
 - N** Cancels the process so you can begin again.

```
Validating Clearinghouse entry for: < name:domain:org >
A new Clearinghouse entry was created.
Done.
BS: Activating Files in Database
Boot Service run.
```

Wrap-up

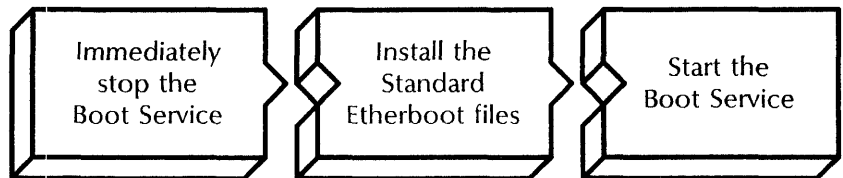
When you see the message "Boot Service run," you have successfully registered the Boot Service in the Clearinghouse. Perform the next procedure "Installing the Boot Service database."

Example

This example shows the initialization process.

```
Running Boot Service.
BS: Service name and description unknown.
Enter service name: Boot1
Enter service description: Boot Service for Your Domain
Confirm (Y/N): Y
Validating Clearinghouse entry for: Boot1:Domain:Org
A new Clearinghouse entry was created.
Done.
BS: Activating Files in Database
Boot Service run.
```

Installing the Boot Service database



Use this procedure to install the database files for the Boot Service.

Prerequisites

- Know the proper installation media to use (see the *Guide to System Administration Activities*)
- See the *Boot Service Worksheet* for the names of the files you need to install
- Make sure the server has enough free disk pages before you install the Boot Service database

Step-by-step

1. Log on and enable in the Boot Service context.
2. Type **Stop Service**

```
Select choices
1  Boot Service
2  <service name >
Enter one or more choices:
```

3. Type the number for the Boot Service .

```
BS: Stop immediately? (Y/N):
```


4. Type **Y** at the "Stop immediately" prompt \Leftarrow .
 - Y** Stops the Boot Service user sessions abruptly.
 - N** Stops the Boot Service gradually. This allows all requests in process to be completed before stopping the service.
5. Insert the installation media containing the Etherboot files into the disk drive.
6. If you are using:
 - an 8090 server, type **Install Etherboot Files** \Leftarrow .
 - an 8000 server, type **Retrieve Floppy Files** \Leftarrow .

NOTE

If you are using an **8000 server** and you execute the command before inserting a disk, you see the message "Please insert floppy disk into floppy drive." Insert the disk to continue.

```
File List: *
```

7. Press RETURN to copy all of the database files to the working directory. During this process, you see messages such as:

```
EtherInitial.db ...copied to the working directory
DLion.germ ...copied to the working directory
```

NOTE

If you are using an **8000 server**, repeat steps 5 through 7 to copy the Etherboot files from each of the floppy disks.

8. Type **Start Service** \Leftarrow .

```
Select choices
1  Boot Service
2  <service name >
Enter one or more choices:
```

9. Type the number for the Boot Service \Leftarrow .

```
Starting Boot Service.
BS: Activating Files in Database
BS!
```

Wrap-up

When you see the message "Activating Files in Database," you have installed the Etherboot files for your Boot Service. You can test the Boot Service by performing an installation boot at a workstation. If the Boot Service is properly installed, you will see the installation menu.

The next procedure lets you prepare your network to support network installation of workstation software.

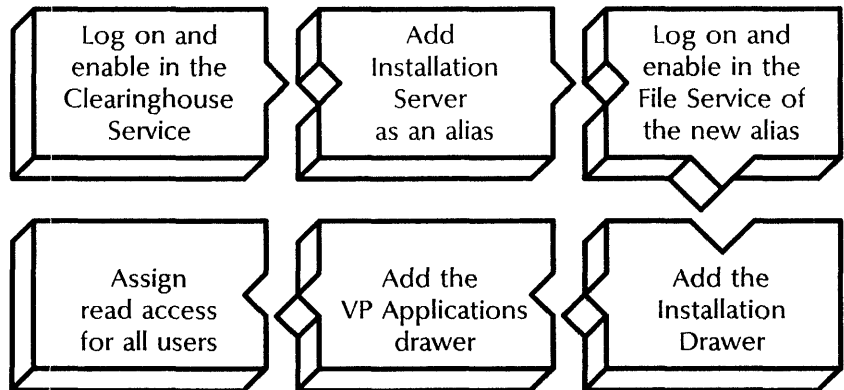
Example

This example shows installing the database from an 8090 server.

```

BS!Stop Service
Select choices
1 Boot Service
2 Clearinghouse Service
3 < other service >
Enter one or more choices: 1
BS: Stop immediately? (Y/N): Y
BS!Install Etherboot Files
File List: *
EtherInitial.db ...copied to the working directory
DLion.germ ...copied to the working directory
< continue messages >
BS!Start Service
Select choices
1 Boot Service
2 < service name >
Enter one or more choices:
Starting Boot Service.
BS: Activating Files in Database
BS!
    
```

Preparing for network installation of workstation software



Use this procedure to allow the installation of software, such as ViewPoint, at individual workstations. After you perform this procedure, workstation users can access the software they need using File Service drawers rather than copying programs from floppy disks.

Prerequisites

- If you are using more than one File Service on your network, determine the one you want to use to store the workstation software.



Because the workstation software can require a large number of disk pages, use the File Service with the largest capacity. See the documentation for each software package to determine exact disk page requirements.

- See the Boot Service Worksheet for the number of disk pages you need for both the Installation Drawer and the VP Applications file drawer.

Step-by-step

1. Using the server supporting the Clearinghouse, log on and enable in the Clearinghouse Service context.
2. Type **Add Alias** .

Add alias for name:

3. Type the name of the File Service to which you want to assign the new alias .

New alias to be added:



CAUTION: For the Boot Service to recognize this alias, you must name it Installation Server.

4. Type **Installation Server** .

Done. Installation Server:domain:org now stands for FS:domain:org Add another Alias? (Y/N):

5. Type **N** at the "Add another Alias" prompt .
 - Y** Registers this alias and lets you add another.
 - N** Registers this alias only.

CHS!

6. Log on and enable in the context of the File Service assigned the Installation Server alias.
7. Type **Add File Drawer** .

Select Volume
 1 <volume name >
 2 <volume name >
 3 <volume name >
 Enter choice number:

8. If the File Service is running on a multiple-drive server, type the number for the File Service volume and press RETURN. If the File Service is running on a single-drive server, **skip to step 9.**

File drawer name:



CAUTION: For the Boot Service to recognize these drawers, you must name them Installation Drawer and VP Applications.

9. Type **Installation Drawer** .

Owner's name:

10. Type the owner's name for this drawer and press RETURN. Unless you specify the domain and organization, they default to that of the server. The owner is automatically given full access to the drawer.

Page limit (type 0 for no limit) (0..2147483647):

11. Type a number greater than the total number of disk pages you need .

<name:domain:organization> is granted full access.
Change Access List? (Y/N):

12. Type **Y** at the "Change Access List" prompt .

Y Lets you change the access list.

N Does not let you change the list.

Enter User, Alias, or Group Name:

13. Type the name of the individual or group you want to have access to the Installation Drawer and press RETURN. You may use the wildcard symbol (*).

Permission to read? (Y/N):

14. Type **Y** at the "Permission to read" prompt and press RETURN; or simply press RETURN.

Y Gives each user the ability to read the files in the drawer.

N Prevents read access.

Permission to write? (Y/N):

15. Type **N** at the "Permission to write" prompt .

Y Lets users write to the files in the drawer.

N Prevents write access.

Permission to add? (Y/N):

16. Type **N** at the "Permission to add" prompt \leftarrow .
- Y** Lets users add files to the drawer.
 - N** Prevents add access.

Permission to remove? (Y/N):

17. Type **N** at the "Permission to remove" prompt \leftarrow .
- Y** Lets users remove files from the drawer
 - N** Prevents remove access.

Permission to change the access list? (Y/N):

18. Type **N** at the "Permission to change the access list" prompt \leftarrow .
- Y** Lets users change the access list.
 - N** Prevents users from making changes.

Make another change to access list? (Y/N):

19. Type **N** at the "Make another change to access list?" prompt \leftarrow .
- Y** Lets you make additional changes to the access list for this drawer; return to step 14.
 - N** Indicates the information is complete.

Done
FS!

21. Type **Add File Drawer** \leftarrow .

Select Volume
1 <volume name >
2 <volume name >
3 <volume name >
Enter choice number:

22. If the File Service is running on a multiple-drive server, type the number for the File Service volume and press RETURN. If the File Service is running on a single-drive server, **skip to step 23**.

File drawer name:

23. Type **VP Applications** \leftarrow .

24. Repeat steps 10 through 20 to give the individual or group permission to read the files in the VP Applications drawer.

Wrap-up

Through the Clearinghouse, you assigned a special alias to the File Service you will use for workstation software installation. You then added two file drawers in this File Service; these drawers will provide access to software applications throughout the network.

To make these drawers accessible, you changed the attributes of the file drawers to read-only access ensuring that individual workstation users can download the files from the drawer without altering the software.

Now you need to place copies of the software in these file drawers. See your ViewPoint documentation, in particular the "Network Preparation" chapter in the VP Terminal Emulations Release Document, for more information.

Example

This example shows creating the alias and file drawers for network installation of workstation software.

CHS! Add Alias

Add Alias for Name: **FS**

New alias to be added: **Installation Server**

Done. Installation Server:domain:org now stands for

FS:domain:org Add another Alias? (Y/N): **N**

CHS!

FS!Add File Drawer

File drawer name: **Installation Drawer**

Owner's name: **Jones**

Page limit (type 0 for no limit) (0..2147483647): **27000**

Jones:Sales:Vermont is granted full access.

Change Access List? (Y/N): **Y**

Enter User, Alias, or Group Name: ***:Sales:Vermont**

Permission to read? (Y/N): **Y**

Permission to write? (Y/N): **N**

Permission to add? (Y/N): **N**

Permission to remove? (Y/N): **N**

Permission to change the access list? (Y/N): **N**

Make another change to access list? (Y/N): **N**

Done

FS!Add File Drawer

File drawer name: **VP Applications**

Owner's name: **Jones**

Page limit (type 0 for no limit) (0..2147483647): **27000**

Jones:Sales:Vermont is granted full access.

Change Access List? (Y/N): **Y**

Enter User, Alias, or Group Name: ***:Sales:Vermont**

Permission to read? (Y/N): **Y**

Permission to write? (Y/N): **N**

Permission to add? (Y/N): **N**

Permission to remove? (Y/N): **N**

Permission to change the access list? (Y/N): **N**

Make another change to access list? (Y/N): **N**

Done

FS!

17. Communications Monitoring Service

This chapter contains the procedures you perform to set up the Communications Monitoring Service (CMS). These procedures are available using an 8000 or an 8090 server.

Prerequisites

Complete these tasks before you perform any Communications Monitoring Service setup procedures:

- Install all required software as described in the Server Software Installation chapter of this book.
- Ensure that the Communications Monitoring Service resides on the same server as the communications port you want to monitor.
- Install all required hardware for the communications activities you are setting up. See the Communications Monitoring Service chapter in the *Guide to System Administration Activities* for the communications hardware requirements.
- Have handy the Communications Monitoring Service Worksheet. You filled out this worksheet when you read the *Guide to System Administration Activities*, and placed the completed copy in the *Activities Guide*.

Commands

This section lists the commands you use to set up your Communications Monitoring Service. You must be in the Communications Monitoring Service context to access these commands.

Table 17-1 shows the commands along with the logged on status and service state (started or stopped) for accessing them.

Table 17-1. **Communications Monitoring Service setup commands**

Command	Logged off		Logged on		Enabled	
	Started	Stopped	Started	Stopped	Started	Stopped
Register Communications Monitoring Service					•	•
Set Monitoring Profile					•	•
Set Remote Log Handling					•	•
Show Statistics					•	•
Start Service						•
Stop Service					•	

Register Communications Monitoring Service

Available to the enabled user when the service is started. Registers the Communications Monitoring Service with the Clearinghouse Service. Use this command if self-registration fails.

Related procedure: Manually registering the Communications Monitoring Service

Set Monitoring Profile

Available to the enabled user when the service is started. Sets all the parameters of the monitoring profile and disables auto-logging.

Other **Set** commands are available to set these parameters individually. See the *Services Maintenance Guide*.

Related procedures: Monitoring SNA communications, Monitoring X.25 communications, Monitoring RS232C communications

Set Remote Log Handling

Available to the enabled user when the service is started. Enables auto-logging. Establishes the name of the remote directory to store log files, the maximum number to store, and how often you want to store them. Auto-logging copies the local log file to a remote log file in the remote directory.

To disable auto-logging, use the **Set Monitoring Profile** command.

Related procedure: Setting up auto-logging

Show Statistics Available to the enabled user when the service is started. Displays statistics for the service you are monitoring. This command is available only if you specify SNA protocol in the monitoring profile.

Related procedure: Monitoring SNA communications

Stop Service Available to the enabled user when the service is started. Stops the currently loaded and started services you select.

Related procedure: Manually registering the Communications Monitoring Service

Start Service Available to the enabled user when the service is stopped. Starts the currently loaded and stopped services you select.

Related procedure: Manually registering the Communications Monitoring Service

Procedures

This section contains these procedures for setting up the Communications Monitoring Service:

Initializing the Communications Monitoring Service

Use this procedure to name and describe the Communications Monitoring Service in the Clearinghouse Service.

Manually registering the Communications Monitoring Service

Use this procedure to manually register the Communications Monitoring Service in the Clearinghouse Service. Manual registration is required only if the Communications Monitoring Service was unable to register itself during initialization.

Monitoring SNA communications

Use this procedure to select SNA protocol in the monitoring profile.

Monitoring X.25 communications

Use this procedure to select X.25 protocol in the monitoring profile.

Monitoring RS232C communications

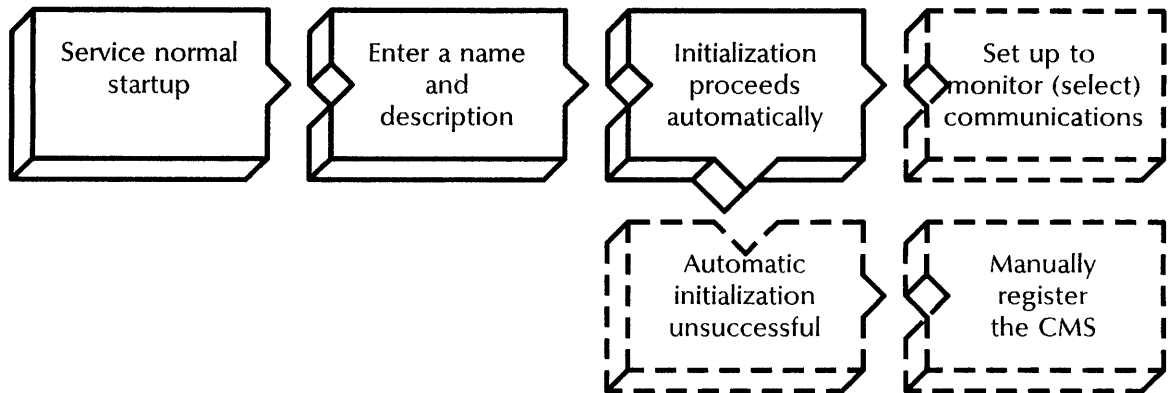
Use this procedure to select RS232C protocol in the monitoring profile.

Setting up auto-logging

Use this procedure to enable auto-logging in the monitoring profile for auto- logging.

Perform the procedures that apply to your configuration.

Initializing the Communications Monitoring Service



Use this procedure to register the Communications Monitoring Service in the Clearinghouse Service and start the service for the first time.



If the Communications Monitoring Service fails to register itself, the messages "Validation could not be done. Clearinghouse not located" display. In this instance, use the "Manually registering the Communications Monitoring Service" procedure later in this section.

Prerequisites

- See the Communications Monitoring Service Worksheet in your *Activities Guide* for the name and description of the service.

Step-by-step

Attempting to determine the name of this Communications Monitoring Service.
Service name and description unknown.
Enter service name:

1. Immediately after installing the Communications Monitoring Service type the name of your service and press RETURN. If you see a message indicating that the Clearinghouse Service is not available, enter a fully qualified name.

Enter service description:

2. Type a brief description of your service .

Confirm (Y/N)?

4. Type **Y** or **N** at the "Confirm" prompt .

 - Y** Registers the service in the Clearinghouse.
 - N** Cancels the process so you can begin again.

```
CMS: Validating Clearinghouse entry for <service name: domain:organization >
CMS: A new Clearinghouse entry was created.
CMS: Done
CMS: Communications Monitoring Service is running.
CMS: Communications Monitoring Service is started.
Communications Monitoring Service run.
```

Wrap-up

When you see the message "Communications Monitoring Service run," you have successfully registered the CMS in the Clearinghouse.

If the registration was not successful, this message displays indicating that a new Clearinghouse entry was not created:

```
CMS: Validating Clearinghouse entry for <service name:domain:organization >
CMS: Validation could not be done. Clearinghouse not located.
Communications Monitoring Service is not run.
```

You must manually register the Communications Monitoring Service when the Clearinghouse is available. Continue with the procedure, "Manually registering the Communications Monitoring Service" when the Clearinghouse is available.

After the Communications Monitoring Service is run, perform the procedure to select the communications protocol for the monitoring profile.

Example

This example shows the successful registration of a Communications Monitoring Service named RS232C CMS.

```

Attempting to determine the name of this Communications Monitoring Service.
Service name and description unknown.
Enter service name: RS232C CMS
Enter service description: Com monitor for RS232C protocol
Confirm? (Y/N): Y
CMS: Validating Clearinghouse entry for RS232C CMS:Sales:ABC
CMS: A new Clearinghouse entry was created.
CMS: Done
CMS: Communications Monitoring Service is running.
CMS: Communications Monitoring Service is started.
Communications Monitoring Service run.

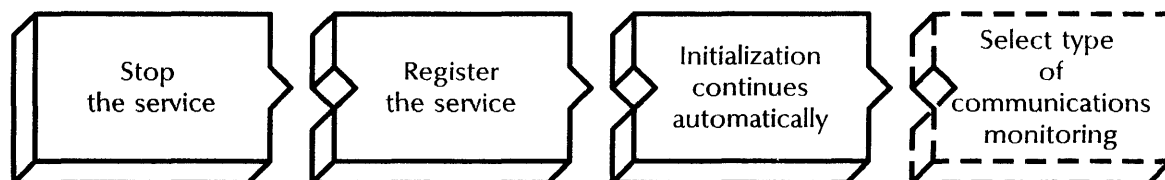
```

This example shows an unsuccessful Communications Monitoring Service registration.

```

CMS:Normal Startup (Y/N): Y
Attempting to determine the name of this Communications Monitoring Service.
Service name and description unknown.
Enter service name: RS232C CMS
Enter service description: Com monitor for RS232C
Confirm? (Y/N): Y
CMS: Validating Clearinghouse entry for RS232C CMS:Sales:ABC
CMS: Validation could not be done. Clearinghouse not located.
Communications Monitoring Service is not run.

```

Manually registering the Communications Monitoring Service

Use this procedure if the Communications Monitoring Service was unable to register itself when initialized for the first time. Correct any problem, then perform this procedure to register the service manually when the Clearinghouse is available.

Prerequisite

Ensure that the Clearinghouse Service is available.

Step-by-step

1. Type **Stop Service** .

```
Select choices
1  Communications Monitoring Service
2  <service name >
3  <service name >
Enter one or more choices:
```

2. Type the number for the Communications Monitoring Service .

```
CMS: Stop Immediately? (Y/N):
```

3. Type **Y** at the "Stop Immediately" prompt .
 - Y** Stops the service immediately; all CMS functions are unavailable to the network.
 - N** Stops the service after all current activity ends.

```
Stopping Communications Monitoring Service.
CMS: Communications Monitoring Service is stopping
CMS: Communications Monitoring Service is stopped.
```

4. Log on and enable in the Communications Monitoring Service context.

```
CMS!
```

5. Type **Register Communications Monitoring Service** .

```
CMS: Validating Clearinghouse entry for
<name:domain:organization >
CMS: A new Clearinghouse entry was created.
CMS: Done.
CMS!
```

6. Type **Start Service** .

```
Select choices
1  Communications Monitoring Service
Enter one or more choices:
```


7. Type the number for the Communications Monitoring Service
 ⇐.

Wrap-up

When you see the message "Communications Monitoring Service is started," you have successfully registered the Communications Monitoring Service with the Clearinghouse.

Now perform the appropriate procedure to select the communications protocol type in the monitoring profile.

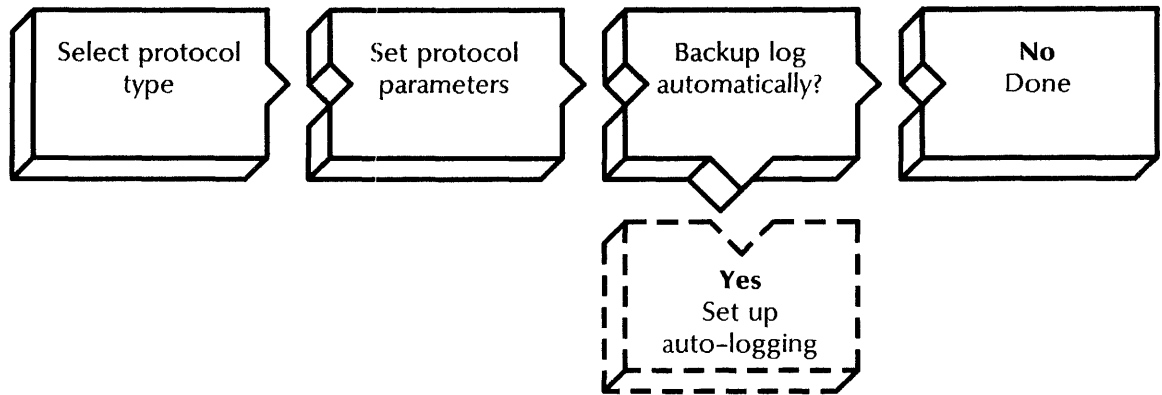
Example

This example shows manually registering the Communications Monitoring Service named OurCMS with the Clearinghouse.

```

> Stop Service
  Select choices
    1 Communications Monitoring Service
    2 External Communication Service
    3 Interactive Terminal Service
  Enter one or more choices: 1
CMS: Stop immediately? (Y/N): Y
Stopping Communications Monitoring Service.
CMS: Communications Monitoring Service is stopping
CMS: Communications Monitoring Service is stopped.
> Logon
User's Name: MWB
Password: ****
> Enable
!Communications Monitoring Service
CMS! Register Communications Monitoring Service
CMS: Validating Clearinghouse entry for RS232C CMS:Sales:ABC
CMS: A new Clearinghouse entry was created
CMS: Done
CMS! Start Service
  Select choices
    1 Communications Monitoring Service
  Enter one or more choices: 1
Starting Communications Monitoring Service.
CMS: Validating Clearinghouse entry for RS232C CMS:Sales:ABC
CMS: Done
CMS: Communications Monitoring Service is running
CMS: Communications Monitoring Service is started.
CMS!
  
```

Monitoring SNA communications



Use this procedure to define the SNA protocol type and its parameters in the monitoring profile. This protocol type monitors the communication between an External Communication Service providing IBM 3270 SNA emulation and the IBM host.

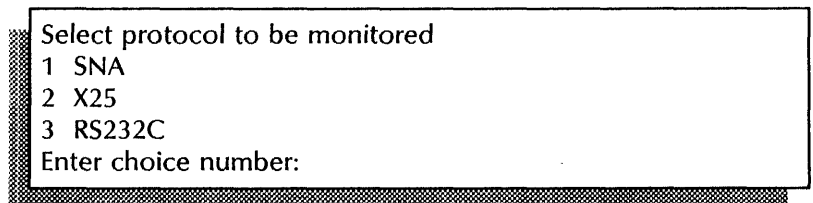
Prerequisites

See the Communications Monitoring Service Worksheet in your *Activities Guide* for the following information:

- The protocol type
- The level at which you are monitoring SNA protocol
- The number of data bytes per log entry
- The maximum number of log entries in the log file
- The log file comment
- Whether to include statistics in the log
- The RS232C port to monitor
- The log name
- Whether to automatically back up the log

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Monitoring Profile** .



3. Type **1** to select SNA protocol monitoring .

Possible product option(s)

1 3270

Enter choice number:

4. Type **1** to select the 3270 product option .

SNA protocol monitoring supports 3270 emulation only.

NOTE

Select protocol level

1 SDLC

2 Path Control (LU & PU)

3 Path Control (PU ONLY)

4 All

Enter choice number:

5. Type the number for the protocol level .

Amount of data bytes to record per log entry (40..600):

6. Type the number of bytes each log file entry can record .

Maximum number of entries in log file (100..200):

7. Type the number of entries to allow in the log file .

Log file comment:

8. Type a comment or description at the "Log file comment" prompt .

Include Statistics in log? (Y/N):

9. Type **Y** at the "Include Statistics in log" prompt .

Y Includes SNA monitoring statistics in the log files.

N Does not include SNA monitoring statistics in the log files.

Specify display format

1 HEX

Enter choice number:

10. Type **1** to select HEX as the display format .

SNA monitoring displays data only in hexadecimal format.

NOTE

Choose RS232C port to monitor

1 <port name>

2 <port name>

Enter choice number:

11. Type the number for the RS232C port you want to monitor .

NOTE

The protocol used with the port you select must agree with the monitoring type.

Log name:

12. Type a name for the local log file .

Backup log automatically? (Y/N):

13. Type **Y** or **N** at the "Backup log automatically" prompt .

Y Selects auto-logging. Skip to the "Setting up auto-logging" procedure.

N Does not select auto-logging.

Confirm this monitoring profile ? (Y/N):

14. Type **Y** or **N** to the "Confirm this monitoring profile" prompt .

Y Adds the monitoring profile.

N Cancels your entries; return to step 3.

Wrap-up

If you did not enable auto-logging in step 13, you have successfully set up SNA communications monitoring when you see the "Monitoring profile set" message.

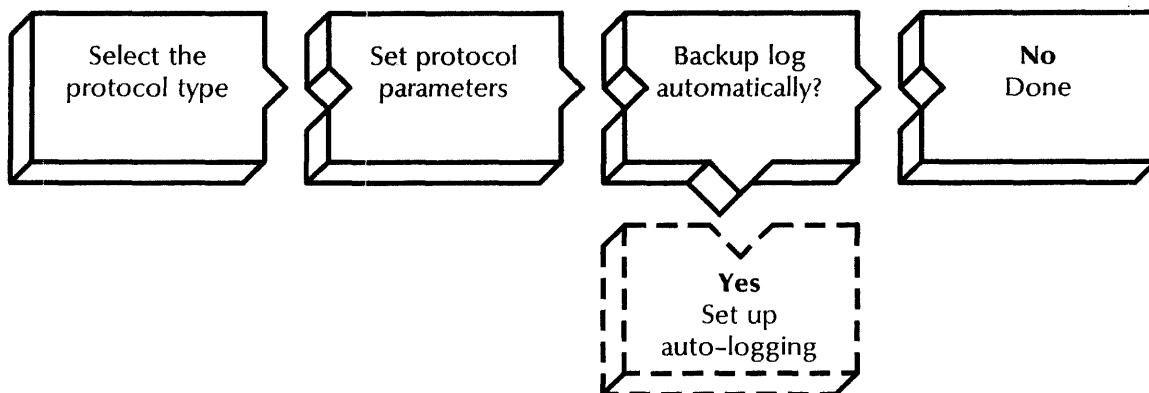
If you selected auto-logging in step 13, follow the steps in the "Setting up auto-logging" procedure later in this chapter to set up auto-logging.

Example

This example shows defining SNA communications in the monitoring profile. Automatic log backup is not included.

```
CMS!Set Monitoring Profile
Select protocol to be monitored
1 SNA
2 X25
3 RS232C
Enter choice number: 1
Possible product option(s)
1 3270
Enter choice number: 1
Select protocol level
1 SDLC
2 Path Control (LU & PU)
3 Path Control (PU ONLY)
4 All
Enter choice number: 2
Amount of data bytes to record per log entry (40..600): 300
Maximum number of entries in log file (100..200): 200
Log file comment: Sample log file, SNA monitoring
Include Statistics in log? (Y/N): N
Specify display format
1 HEX
Enter choice number: 1
Choose RS232C port to monitor
1 SNAport1
Enter choice number: 1
Log name: SNALog
Backup log automatically? (Y/N): N
Confirm this monitoring profile? (Y/N): Y
Monitoring profile set.
CMS!
```

Monitoring X.25 communications



Use this procedure to define the X.25 protocol type and its parameters in the monitoring profile. This protocol type monitors communications between an Internetwork Routing Service and an X.25 public data network.

The X.25 protocol is always monitored at the HDLC level and provides data display.

Prerequisites

See the *Communications Monitoring Service Worksheet* in your *Activities Guide* for the following information:

- The protocol type
- The number of data bytes per log entry
- The maximum number of log entries in the log file
- The log file comment
- The display format
- The RS232C port to monitor
- The log name
- Whether to automatically back up the log

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Monitoring Profile** .

Select protocol to be monitored

1 SNA

2 X25

3 RS232C

Enter choice number:

3. Type **2**, X.25 protocol monitoring .

Amount of data bytes to record per log entry (40..600):

4. Type the number of bytes of each log file can record .

Maximum number of entries in log file (100..200):

5. Type the number of entries to allow in the log file .

Log file comment:

6. Type a comment or description at the "Log file comment" prompt .

Specify display format

1 HEX

Enter choice number:

7. Type **1**, to select HEX display format .

X.25 monitoring displays data only in hexadecimal format.

NOTE

Choose RS232C port to monitor

1 <port name>

Enter choice number:

8. Type the number for the RS232C port you want to monitor .

The protocol used with the port you select must agree with the monitoring type.

NOTE

Log name:

9. Type a name for the local log file .


Backup log automatically? (Y/N):

10. Type **Y** or **N** at the "Backup log automatically" prompt .

Y Selects auto-logging. Skip to the "Setting up auto-logging" procedure.

N Does not select auto-logging.

Confirm this monitoring profile (Y/N):

11. Type **Y** or **N** at the "Confirm this monitoring profile" prompt .
- Y** Confirms your entries.
 - N** Cancels your entries; return to step 3.

Wrap-up

If you did not enable auto-logging in step 10, you have successfully set up X.25 communications monitoring when you see the message "Monitoring profile set."

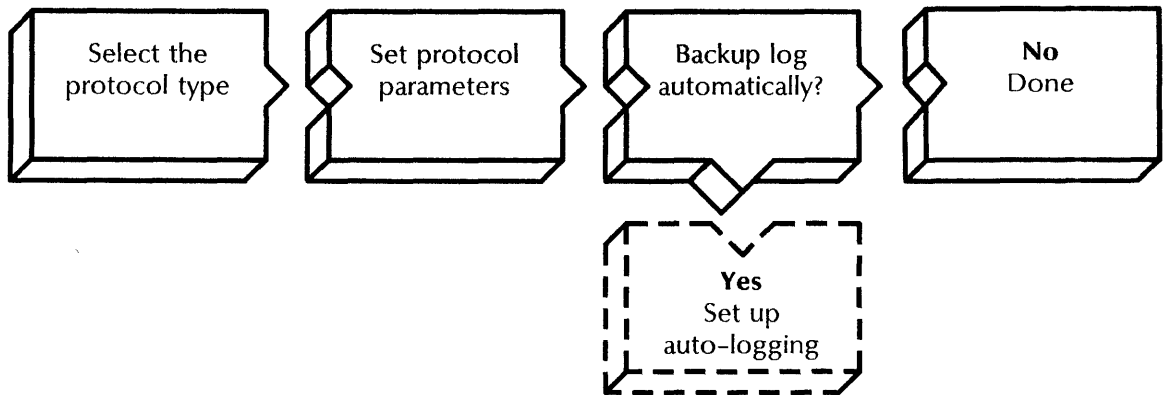
If you selected auto-logging in step 10, follow the steps in the "Setting up auto-logging" procedure later in this chapter to set up auto-logging.

Example

This example shows defining X.25 communications in the monitoring profile. Automatic log backup was not selected.

```
CMS!Set Monitoring Profile
Select protocol to be monitored
 1 SNA
 2 X25
 3 RS232C
Enter choice number: 2
Amount of data bytes to record per log entry (40..600): 512
Maximum number of entries in log file (100..200): 150
Log file comment: Sample log file, X.25 monitoring
Specify display format
 1 HEX
Enter choice number: 1
Choose RS232C port to monitor
 1 X25port
Enter choice number: 1
Log name: X25log
Backup log automatically? (Y/N): N
Confirm this monitoring profile? (Y/N): Y
Monitoring profile set.
CMS!
```


Monitoring RS232C communications



Use this procedure to define the RS232C protocol type in the monitoring profile. This protocol type monitors any communication service that uses an RS232C port, except the Internetwork Routing Service. This type of monitoring captures the data and does not interpret it.

You can use the RS232C protocol type to monitor any protocol, such as BSC, or asynchronous TTY emulation.

Prerequisites

See the Communications Monitoring Service Worksheet in your *Activities Guide* for the following information:

- The number of data bytes per log entry
- The maximum number of log entries in the log file
- The log file comment
- The display format
- The RS232C port to monitor
- The log name
- Whether to automatically back up the log file

Step-by-step

1. Log on and enable in the Communications Monitoring Service context.
2. Type **Set Monitoring Profile** \leftarrow .

```

Select protocol to be monitored
1 SNA
2 X.25
3 RS232C
Enter choice number:
  
```

3. Type **3**, to select RS232C protocol monitoring \leftarrow .

Amount of data bytes to record per log entry (40..600):

4. Type the number of bytes each log file entry can record .

Maximum number of entries in log file (100..200):

5. Type the number of entries to allow in the log file .

Log file comment:

6. Type a comment or description at the "Log file comment" prompt .

Specify display format

- 1 HEX
- 2 OCTAL
- 3 ASCII
- 4 EBCDIC

Enter choice number:

7. Type the number for the display format .

Choose RS232C port to monitor

- 1 <port name>
- 2 <port name>
- 3 <port name>
- 4 <port name>

Enter choice number:

8. Type the number for the RS232C port you want to monitor .



The protocol used on the port you select must agree with the monitoring type.

Log name:

9. Type a name for the local log file .

Backup log automatically? (Y/N):

10. Type **Y** or **N** at the "Backup log automatically" prompt .

Y Selects auto-logging. Skip to the "Setting up auto-logging" procedure.

N Does not select auto-logging.

Confirm this monitoring profile (Y/N):

11. Type **Y** or **N** at the "Confirm this monitoring profile" prompt
 ⏪.
- Y** Confirms your entries.
 - N** Cancels your entries; return to step 3.

Wrap-up

If you did not enable auto-logging in step 10, you have successfully set up RS232C communications monitoring when you see the message "Monitoring profile set."

If you selected auto-logging in step 10, follow the steps in the "Setting up auto-logging" procedure next.

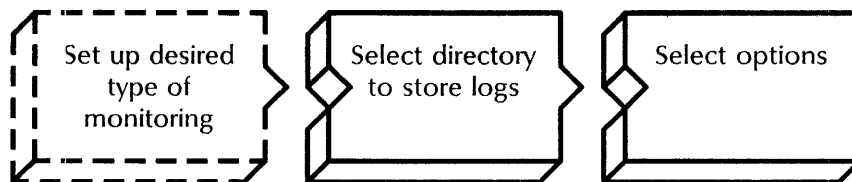
Example

This example shows defining RS232C communications in the monitoring profile. Automatic log backup was not selected.

```

CMS!Set Monitoring Profile
Select protocol to be monitored
 1 SNA
 2 X25
 3 RS232C
Enter choice number: 3
Amount of data bytes to record per log entry (40..600): 512
Maximum number of entries in log file (100..200): 150
Log file comment: Sample log file, RS232C monitoring
Specify display format
 1 HEX
 2 OCTAL
 3 ASCII
 4 EBCDIC
Enter choice number: 3
Choose RS232C port to monitor
 1 SNAport1
 2 X25port
 3 TTYport1
 4 TTYport2
Enter choice number: 3
Log name: TTY1log
Backup log automatically? (Y/N): N
Confirm this monitoring profile? (Y/N): Y
Monitoring profile set.
CMS!
  
```

Setting up auto-logging



Auto-logging automatically stores log files to a File Service you specify. Use auto-logging with any type of monitoring.

Prerequisites

- Create or assign a file drawer to store the logs. Refer to the “Creating public file drawers for users” and “Creating private file drawers for users” procedures in the File Service chapter of this book.
- Enable auto-logging in a previous setup procedure.
- See the Communications Monitoring Service Worksheet in your *Activities Guide* for the following information:
 - The name of the remote directory
 - The maximum number of logs stored remotely
 - The frequency for storing the local log file

Step-by-step

Remote Directory:

1. After selecting to backup the log automatically, type the name of the File Service where you want to store the remote log files **↵**.

NOTE

The File Service name must be enclosed within parentheses. If the File Service is in the same domain and organization as the Communications Monitoring Service, you can omit the domain and organization from the File Service name. If you omit the domain and organization, type a colon (:) after the File Service name.

Maximum number of logs stored remotely (1..100):

2. Type the maximum number of remote log files to be stored in the remote directory.

Store every Nth log (1..10):

3. Type the number for log storage frequency for storing the local log file remotely **↵**.

Confirm this monitoring profile (Y/N):

4. Type **Y** at the "Confirm this monitoring profile" prompt **↵**.
 - Y** Confirms the monitoring profile.
 - N** Cancels your entries.

Wrap-up

When you see the message "Monitoring profile set," you have successfully enabled auto-logging.

Example

This example shows setting up auto-logging as the last step in defining the monitoring type for a communication service.

```
(steps from an earlier setting up to monitor procedure)
.
.
Backup log automatically? (Y/N): Y
Remote Directory: (FileService1:)ComLogs/SNAlogs
Maximum number of logs stored remotely (1..100): 60
Store every Nth log (1..10): 1
Confirm this monitoring profile? (Y/N): Y
Monitoring profile set.
CMS!
```


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