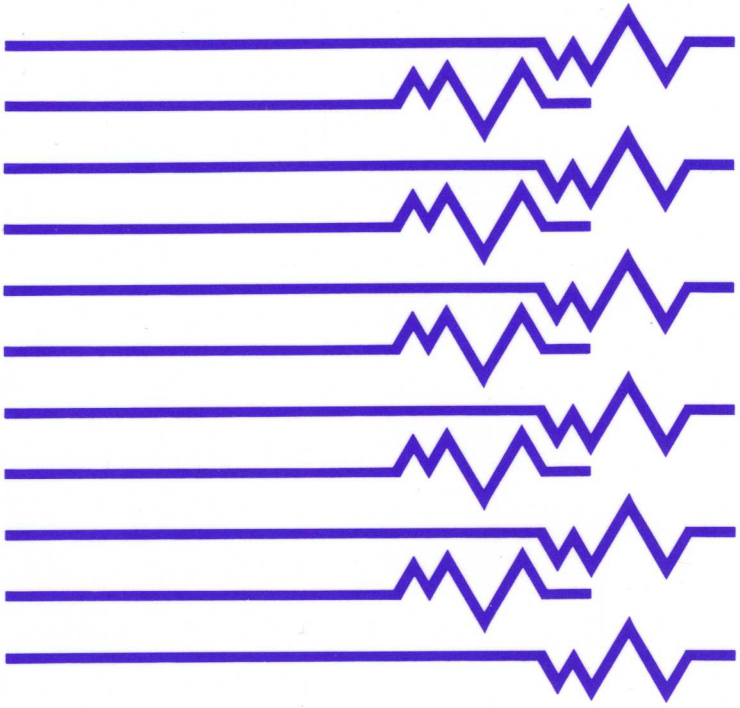
XEROX

Xerox Services/PC

Services Software Installation Guide



XEROX

Xerox Services/PC

Services Software Installation Guide

Xerox Corporation
Product Education and Documentation
475 Oakmead Parkway
Sunnyvale, California 94086

©1991 by Xerox Corporation. All rights reserved.
Published September, 1991.

Copyright protection claimed includes all forms and matters of copyrightable material and information now allowed by statutory or judicial law or hereafter granted, including without limitation, material generated from the software programs which are displayed on the screen such as icons, screen displays, looks, etc.

Publication number: 610E26180 Printed in the United States of America

Xerox®, GLOBALVIEW®, VP®, and all Xerox product names mentioned in this publication are trademarks of Xerox Corporation.
Rank® Xerox is a trademark of Rank Xerox Ltd.
AT&T® is a trademark of American Telephone & Telegraph Company in the U.S.A. and other countries.
DEC®, Digital®, VAX®, VMS®, and VT100® are trademarks of Digital Equipment Corporation.
Hayes® is a trademark of Hayes Microcomputer Products, Inc.
IBM® and all IBM products mentioned in this publication are trademarks of International Business Machines Corporation.
Sun®, SunInstall®, SunOS®, SunView®, SunWindows®, and X11/NeWS® are trademarks of Sun Microsystems, Incorporated.
UNIX® is a trademark of AT&T.
Ven-Tel® is a trademark of Ven-Tel, Inc.

Not all the products mentioned in this publication may be available in your country. Please contact your local representative for details.

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

Table of contents

1. Introduction 1–1

Prerequisites 1–1

Network Administration Library organization 1–2

How to use this book 1–4

Contents 1–4

Documentation conventions 1–6

Logging on and enabling in a service context 1–7

Logged on and enabled status 1–7

Service context 1–7

Step-by-step 1–8

Example 1–9

2. Installing the services 2–1

Overview 2–1

Prerequisites 2–2

All installations 2–2

Genesis Clearinghouse installation 2–2

Genesis Internetwork Routing Service installation 2–2

Basic installation procedures 2–3

Choosing the correct procedures 2–4

Boot the Services Installer utility 2–6

Partition the Xerox disk 2–7

Install system software 2–10

Start the system 2–13

Set software options 2–15
Enter your network number and server name 2–19
Install the services 2–24
Complete the installation 2–27

3. Genesis Clearinghouse Installation 3–1

Prerequisites 3–1
Procedures 3–1
Running the Clearinghouse Service 3–2
Complete the installation 3–13

4. Genesis IRS Installation 4–1

Overview 4–1
Running the Internetwork Routing Service 4–1

5. Adding X.25 networks and IRS circuits 5–1

Overview 5–1
Procedures 5–1
Adding an X.25 network 5–2
Adding an Internetwork Routing Service circuit 5–5
Starting the Internetwork Routing Service 5–16
Completing the installation 5–18

A. Installing the software in a network installation drawer A–1

Overview A–1
Prerequisites A–1
Step-by-step A–2

B. Setting time parameters B–1

Step-by-step B–1

Index INDEX–1

1. Introduction

The *Xerox Services/PC Services Software Installation Guide* contains step-by-step procedures for installing the services that run on your Xerox network.

Prerequisites

Before you install any of the network services, be sure to follow the basic steps outlined below.

1. Follow the instructions in the *Xerox Viewboard Installation Guide for SCO UNIX Operating System* for installing the Xerox Viewboard and Xerox basic software.
2. Refer to the *Xerox Services/PC Hardware reference Guide* for general guidelines for installing hardware. This book also includes procedures for moving services from one server to another, describes messages you may encounter while using the system, and shows you how to perform online tests to resolve problems that may arise.
3. For a discussion of planning and other preparation to help you install each service, see the *Guide to System Administration Activities.*

   Fill out the worksheets provided in the guide. You will need the information on the worksheets when you install the Services System Software for the first time and set up each service.
4. Review the Services System Software chapter in the *Guide to System Administration Activities.* This chapter explains general server operating conventions.
5. Consult with your Xerox Systems Analyst before you install the server and services software.

Network Administration Library organization

Manuals in the Network Administration Library are described below.

Reference Set

Introduction to Xerox Services Software—provides a detailed description of how Xerox Services work within the network.

Guide to System Administration Activities—contains background and task-related information for daily network operations.

Library Directory—contains command and procedure summaries, a cumulative index, and a glossary.

Procedure Set

Serv*ices Setup Guide*—provides instructions for the initial setup of your services. You prepare for reading this manual by reading the *Guide to System Administration Activities* and filling in the appropriate setup forms.

Backup and Restore Guide—provides complete instructions for backing up and restoring file services and various other service databases.

Basic Services Maintenance Guide—provides instruction for day-to-day network administration tasks for the following services:

- Services System Software
- Clearinghouse Service
- File Service
- PC FIle Service
- Mail Service.

Utility Services Maintenance Guide—provides instruction for day-to-day network administration tasks for the following services:

- Boot Service
- Librarian Service
- Server Monitor Service
- Communications Monitoring Service.

Communication Services Maintenance Guide—provides instruction for day-to-day network administration tasks for the following services:

- External Communications Service
- Internetwork Routing Service
- Interactive Terminal Service
- Remote Batch Service
- TCP-XNS Gateway Service.

Troubleshooting Set

Fault Isolation Process—covers procedures you use to diagnose problems with your network.

System Messages—describes many of the system messages that you may encounter in day-to-day operation of your network.

User Guides

Interactive Terminal Service User Guide—describes how to access the Xerox Network from your home or a remote office with any teletypewriter-like terminal or personal computer. When your terminal is connected to ITS, you can perform network mailing, filing, and printing.

TCP-XNS Gateway Service User Guide—provides information for users accessing the TCP-XNS Gateway Service from TCP and XNS networks.

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 so that you can find the information you need quickly and easily. Before you begin to use the procedures in this book, familiarize yourself with the contents of a typical service chapter. Each chapter will have the following sections:

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 will 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

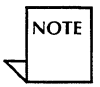
The Services Software Installation Guide uses these conventions to help you recognize information.

RETURN — Words appearing in all capital letters represent the actual 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.

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 Services System Software chapter in the *Guide to System Administration Activities* 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** and press RETURN.

2. Type your registered name at the "User name" prompt and press RETURN.

3. Type your registered password at the "Password" prompt and press RETURN.

You are now logged on.

4. Type **Enable** if you need and have permission to access a System Administrator command and press RETURN.

You are now logged on and enabled.

5. Type the service name and press RETURN.

   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: James Martin:PaloAlto:Xerox
        Password: *******
>Enable
!Interactive Terminal Service
ITS!
```

2 Installing the services

This chapter contains basic installation procedures for installing services software on UNIX/PC servers.

Overview

The following server software installation procedures are covered in this chapter:

- Installing Services System Software and services application software on a server connected to an existing network. An existing network includes other servers that run a Clearinghouse Service. This configuration is called a non-Genesis Clearinghouse installation.
- Installing Services System Software and services application software on the first or only server on a network. This server must run at least one Clearinghouse Service. This configuration is called a Genesis Clearinghouse Service installation.
- Installing Services System Software and services application 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 configuration 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 *Basic Services Maintenance Guide.*

Prerequisites

Complete the general prerequisites before you begin any installation. Then, if your configuration is a Genesis type, complete those prerequisites as well.

All installations

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

  You filled out these worksheets when reading the *Guide to System Administration Activities.*
- Have the software media available.
- Make sure that the proper hardware is installed.
- Have the software option and organization passwords for your organization.
- 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 as provided by your Xerox Systems Analyst.
- Know the exact time and date.

Genesis Internetwork Routing Service installation

- Have the Internetwork Routing Service worksheet available.

- Check that your first server has an Internetwork Routing 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 as provided by your Xerox Systems Analyst.

Basic installation procedures

This chapter contains the following basic installation procedures:

Boot the Services Installer utility
Use this step to boot the installer and the server.

Partition the server disk
Use this procedure to partition the UNIX file that emulates the server disk.

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

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

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

Enter 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.

Install the services
Use this step to install the services on your server.

Completing the installation
Use this procedure to complete the installation. The next step is to set up the services as described in the *Services Setup Guide*.

Procedures for running the Clearinghouse Service and connecting to another network are found in later chapters in this manual.

Choosing the correct procedures

The procedures in this manual apply for all types of installations. However, not all procedures are appropriate for every installation. Use the following guide to plan your installation.

For a non-Genesis installation

Use the following set of procedures to install services on a server that is on a network already running a Clearinghouse:

- Boot the Services Installer utility
- Partition the server disk
- Install system software
- Start the system
- Set software options
- Install the services
- Complete the installation.

For a Genesis Clearinghouse Service installation

Use the following set of procedures to install services on a server that is the first server or only server on a network. This server must run the Clearinghouse Service.

- Boot the Services Installer utility
- Partition the server disk
- Install system software
- Start the system
- Set software options
- Enter your network number and server name
- Install the services (Clearinghouse mandatory)
- Run the Clearinghouse service
- Complete the installation.

For a Genesis Internetwork Routing Service installation

In an internetwork, you use different steps depending on how your network will be connected to others. Use the following procedures if you meet any one of the following requirements:

a. your server is the first or only server in a network.

b. you are connecting to another network via an Internetwork Routing Service link.

c. the network you are connecting to has the Clearinghouse where local clients are registered.

If you will have a non-X.25 link using the Internetwork Routing Service, use the following procedures:

- Boot the Services Installer utility
- Partition the server disk
- Install system software
- Start the system
- Set software options
- Enter your network number and server name
- Install the services
- Run the Internetwork Routing Service
- Add an Internetwork Routing Service circuit
- Start the Internetwork Routing Service
- Complete the installation.

If you are establishing an Internetwork Routing Service link using the X.25 public data network, use the following procedures:

- Boot the Services Installer utility
- Partition the server disk
- Install system software
- Start the system
- Set software options
- Enter your network number and server name
- Install the services
- Run the Internetwork Routing Service
- Add an X.25 network
- Add an Internetwork Routing Service circuit
- Start the Internetwork Routing Service
- Complete the installation.

Boot the Services Installer utility

The first step in installing your server and services software is to power up the server and boot the Services Installer utility.

Prerequisites

- SCO UNIX is installed on the PC
- Xerox Basic software for SCO UNIX is loaded

Step-by-step

1. If you are booting from the network, connect the Ethernet cable and make sure a Boot Service with the Xerox Services/PC Network Installer file is available. Otherwise, insert the floppy labeled "Xerox Services/PC Services Software Installer".
2. Log in to SCO UNIX as **xrxuser**. This username and a password were created by the system administrator during the Unix installation.
3. From the Xerox System administration account options menu, select either network or floppy as the location of the services installer utility. The screen will display a series of memory tests and messages. If you select floppy, follow the on screen instructions and insert the installer floppies as they are requested. If you are booting from the network, you must supply a valid username and password.

```
Installer Version <#.#> of <date> <time>
Copyright (C) Xerox Corporation 1984, 1985, 1986,
1987,
1988, 1989, 1990, 1991.
All rights reserved.
Processor =<id in hex>=<id in octal>=<id in decimal>
Memory size = <####> K bytes
Logon please
User Name:  xxx:Domain:Org
Password: xxxx
Logging on ... Done
```

Wrap-up

Continue with the procedure "Partition the Xerox disk."

Partition the Xerox disk

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

The term "Xerox disk" used in this chapter refers to the large Unix file that emulates a server disk. "Partitioning" does not refer to the partitioning of a disk into UNIX filesystems. Partitioning of the Xerox disk has no effect whatsoever on the UNIX partitions.

CAUTION: Partitioning the Xerox disk erases any data on the disk. Partition the Xerox 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

If you booted from a floppy, **go to Step 2**. If you booted from the network and entered your username and password, you see the following menu.

```
MAIN MENU:
    1   Dual Mode Installation Options
    2   Xerox Services Installation Options
    Enter choice number, then press Carriage Return:
```

The Dual Mode menu option will only display if you have installed workstation installation scripts in the Installation Drawer. See Appendix A for more information on network services installation.

1. Type the number for the Xerox Services and press RETURN to display the list of Installation Drawers. Then, choose the number corresponding to the Services 12.0 drawer.

```
1   Use Services 12.0 Installation Drawer
2   Return to MAIN MENU
Enter choice number, then press Carriage Return:
```

2. If this workstation is the initial installation in your network (i.e. there are no Xerox time servers available), you will be asked to set the time parameters. See Appendix B of this document for more information. Then, type the number for XS: Xerox Services and verify your choice.

```
1. XS: Xerox Services PC Install Xerox Services Software
```

3. Because you are installing services for the first time, you need to select the option to "Partition for Services" from the following menu. Option 8 "Restart Installer" is only available if you have booted the installer from the network.

```
Choices available:
   1   Install Services System Software
   2   Install TCP-XNS Gateway Services System Software
   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   Restart Installer
   9   Partition for Services
  10   Partition for Data
  11   Return to MAIN MENU
Enter choice number, then press Carriage Return:
```

4. At the two confirmation prompts, type **Y** to begin partitioning.

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

```
WARNING - PARTITIONING A SYSTEM DISK DESTROYS ALL
CONTENT
Continue? (Y/N): Y
SECOND CONFIRMATION REQUIRED
Continue? (Y/N): Y
Partitioning disk...
Disk partitioned
```

Wrap-up

When the partitioning is complete, the message "Disk Partitioned" appears. Continue with the procedure "Install system software."

Install system software

After you have partitioned the disk you can install the system software.

Step-by-step

```
Choices available:
    1   Install Services System Software
    2   Install TCP-XNS Gateway Services System Software
    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   Restart Installer
    9   Partition for Services
   10   Partition for Data
   11   Return to MAIN MENU
Enter choice number, then press Carriage Return:
```

1. Type **1** or **2** to install the Services System Software. If you are planning on installing a TCP-XNS Gateway service, select **2**, otherwise select **1**.

```
Ready to Install Services System Software? (Y/N):
```

2. Type **Y** at the "Continue" prompt and press RETURN.

   Y Confirms the selected option.

   N Cancels the option.

3. If you are installing software from a network, **skip to "Wrap-up"** after the three parts of the Services System Software has been installed and you see the message "System Software Installation Complete." If you are installing software from floppy disks, **continue with step 4.**

```
Installing System Software (part 1)...
This floppy disk labeled: XS-PC Services Software Installer
Load into the drive the floppy disk labeled: Services System
Software (XS-PC) #1
Is the requested floppy disk now loaded? (Y/N): Y
```

4. Follow the instructions on the screen to load the software from the floppy disks in the correct order.

Wrap-up

When the system software has been installed, you see the message "System Software Installation Complete." Continue with the procedure "Start the system."

Example

This example shows system software installation from the network.

```
Choices available:
    1   Install Services System Software
    2   Install TCP-XNS Gateway Services System Software
    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   Restart Installer
    9   Partition for Services
   10   Partition for Data
   11   Return to MAIN MENU
Enter choice number, then press RETURN: 1
Installing System Software  (part 1)...
Installing System Software  (part 2)...
Installing System Software  (part 3)...
System Software Installation Complete
```

Start 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 Services System Software
    2   Install TCP-XNS Gateway Services System Software
    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   Restart Installer
    9   Partition for Services
   10   Partition for Data
   11   Return to MAIN MENU
Enter choice number, then press Carriage Return:
```

1. Type the number for the "Start System" option and press RETURN. The list of choices available will vary depending on the server hardware

```
Series 8000 Network Services Executive. Version
<number><date><time>
Copyright (C) 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988,
1989, 1990, 1991 by Xerox Corporation
All Rights Reserved.
Restart Reason: Backstop initialized
    Normal startup? (Y/N):
```

2. Type **N** at the "Normal startup" prompt and press RETURN.

   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 restarting 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 and press RETURN.

```
Opening volume....File System not found.
    Choose desired action
    1   Create a new File System
    2   Run scavenger
    Enter choice number;
    Ready to create a new File System.
    Old File System will be lost.
        Confirm (Y/N):
    Creating File System...done.
```

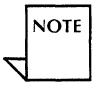
4. Type **1** to create a new file system, and **Y** at the confirmation prompt.

Wrap-up

Continue with the procedure "Set software options."

Set software options

After creating the new file system, use this procedure to enter the necessary passwords and set your software options.



If you are not asked to set the software options, continue with the rest of the installation. When you are done, log on and enable, and type **Set software options**. Follow the directions on the screen to set the software options.

Prerequisites

- See the Software Options Worksheet 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 and press RETURN.

   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. Refer to the *Guide to System Administration Activities* and the Services Options Worksheet.
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 passwords given to you.

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

6. Return to the server, type the appropriate passwords at each prompt, and press RETURN. As each service is displayed, indicate with a **Y** or **N** whether or not you want the service enabled.

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

7. Type **Y** or **N** to lock the software and press RETURN.

   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." Continue with the procedure "Enter your network number and server name."

Example

This example shows setting the software options.

```
    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-91 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 passwords are 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-91  15:03:33
The processor number is 2-852-162-714
Configuration completed.
```

Enter 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 for the server name and description.

Step-by-step

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

1. At the Network number: prompt, enter the network number and press RETURN.

   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 because it establishes future protection for the server. You must be sure that the name you enter is exactly as you want it. 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 and press RETURN.

```
Server Description:
```

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

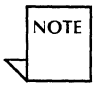
```
Confirm (Y/N):
```

4. Type **Y** or **N** at the "Confirm" prompt and press RETURN.

   Y The server tries to register itself when it reaches the needed domain. **Continue with step 5 of this procedure.**

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

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



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:
```

```
Password:
```

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

7. Type **Y** or **N** at the "Continue" prompt and press RETURN.

   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, break at 3, 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:

In both cases, continue with the procedure, "Install the services."

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

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
>
```

Install 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 *Basic Services Maintenance Guide.*

Prerequisite

Locate the floppy disks containing the services you want to install, or determine the exact pathname of the folder named Services 12.0 Installation Files. See Appendix A for more information on network installation.

Step-by-step

1. Logon and enable as the System Administrator. If you are installing services from floppies, **go to Step 3**. If you are in the Genesis mode, **go to Step 3**, without logging on and enabling.

   If you are installing services from the network, type **Set Remote Directory** at the ! prompt.

```
! Set Remote Directory
```

2. Enter the full pathname of the exact location of the services software at the Remote Directory: prompt. Make sure that you include the parentheses around server:domain:organization.

```
Remote Directory: (<installation
server>:<domain>:<organization>)
Installation Drawer/Services 12.0 Installation Files
```

3. Type **Install Service** and press RETURN, followed by the installation source.

```
Select installation source:
    1.  Floppy drive 1
    2.  Floppy drive 2
    3.  Remote directory <remote directory name>
Enter choice: 1
Working ... Done
Installation choices:
    1   <service name>
    2   <service name>
    3   <service name>
Enter one or more choices:
```

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

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

5. Type **Y** or **N** at the "Activate" prompt and press RETURN.

   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.
```

6. For each additional service, repeat the previous steps.

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 continue with "Complete the installation" in this chapter.
- For a Genesis Clearinghouse Service installation, continue with, "Genesis Clearinghouse Installation", Chapter Three.
- For a Genesis Internetwork Routing Service installation, continue with, "Genesis IRS Installation", Chapter Four.

Example

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

```
>Install Service
>Select installation source:
    1.  Floppy drive 1
    2.  Floppy drive 2
    3.  Remote directory <remote directory name>
Enter choice: 1
Working ... Done
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.
```

Complete the installation

To complete the installation, type **Proceed** and press RETURN.

Turn to the service specific chapters in the *Services Setup Guide* 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 *Basic Services Maintenance Guide*.

3. Genesis Clearinghouse Installation

This chapter contains procedures for performing a Genesis Clearinghouse service installation.

Prerequisites

Use the procedures in this chapter only if you are performing a Genesis Clearinghouse Service installation.

- Make sure that the server is the first server on the network.
- See the Services Installation Worksheet for the following information:
  - — Clearinghouse Service name
  - — Clearinghouse Service domain and organization
  - — User name, description, home File Service, alias
  - — User access.

Procedures

This chapter contains the following procedures:

Running the Clearinghouse Service
Use this procedure to run and set up a Genesis Clearinghouse installation.

Completing the Installation
Use this procedure after you install a genesis Clearinghouse installation.

Running the Clearinghouse Service

This procedure performs a Genesis Clearinghouse Service installation.

Step-by-step

1. Type **Run Service** and press RETURN.

```
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 and press RETURN.

   You may have a short wait for the next prompt.

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

3. Type **Y** at the "CHS: Normal startup" prompt and press RETURN.

   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 and press RETURN.

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 and press RETURN.

   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** and press RETURN.

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

7. Type the number for the Clearinghouse Service and press RETURN.

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

8. Type **Y** at the "Stop immediately" prompt and press RETURN.

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 and press RETURN.

10. Type **Add Domain** and press RETURN.

```
Domain Name:
```

11. Type your domain and organization names using the format domain:organization and press RETURN.

    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 and press RETURN.

    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 and press RETURN.

    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 and press RETURN.

    Y Creates a new domain.

    N **Return to step 11** of this procedure.

```
Done.
CHS>
```

15. Type **Start Service** and press RETURN.

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

16. Type the number for the Clearinghouse Service and press RETURN.

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

17. Type **Add User** and press RETURN.

```
First Name (and Middle Initial, if desired):
```

18. Type your first name and press RETURN.

```
Last Name:
```

19. Type your last name and press RETURN.

```
Password:
```

20. Type your password and press RETURN.

```
Description:
```

21. Type a description of your network responsibilities and press RETURN.

```
"Home" File Service:
```

22. Type the name of your home File Service and press RETURN.

```
Alias:
```

23. Type an alias for yourself and press RETURN.

```
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 and press RETURN.

    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 and press RETURN.

    Y **Return to step 18** of this procedure.

    N **Continue with step 27** of this procedure.

27. Type **Change Domain Access** and press RETURN.

```
Domain Name:
```

28. Type the domain name and press RETURN.

```
Name:
```

29. Type your user name and press RETURN.

```
Admin Access? (Y/N):
```

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

    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** and press RETURN.

```
Organization Name:
```

32. Type the organization name and press RETURN.

```
Name:
```

33. Type your user name and press RETURN.

```
Admin Access? (Y/N):
```

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

    Y Grants administrative access.

    N Does not grant administrative access.

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

35. Type **Logon** and press RETURN.

```
User Name:
```

36. Type your user name and press RETURN.

```
Password:
```

37. Type your password and press RETURN.

```
CHS>
```

38. Type **Enable** and press RETURN.

```
CHS!
```

39. Type **Show Logged On User** to verify your domain access and press RETURN.

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

40. Type **Register Server** and press RETURN.

```
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. Continue with the procedure "Complete 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 the 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.                    Screen continued
```

```
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!
```

Complete the installation

To complete the installation of your services, type **proceed** and press RETURN.

Turn to the service-specific chapters in the *Services Setup Guide* to initialize and set up each service.

4. Genesis IRS Installation

Use the procedures in this chapter to run an Internetwork Routing Service in order to access a Clearinghouse on another network.

Overview

When you install a new network, you normally install and setup a new Clearinghouse Service (Genesis Clearinghouse installation). However, if there is a Clearinghouse on another network, you may want to register all local clients there instead.

If you want to access the Clearinghouse on the other network, you must perform a "Genesis Internetwork Routing Service installation" as described in this chapter. Adding X.25 networks and defining circuits is covered in the following chapter.

Running the Internetwork Routing Service

This section gives procedures you follow to run the IRS on your server.

Prerequisites

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

Step-by-step

1. Type **Run Service** and press RETURN.

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

2. Type the number for the Internetwork Routing Service and press RETURN.

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

3. Type **Y** at the "Normal startup" prompt and press RETURN.

   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 and press RETURN.

```
Enter service description:
```

5. Type a description for the Internetwork Routing Service and press RETURN.

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

6. Type **Y** at the "Confirm" prompt and press RETURN.

   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 message, "Internetwork Routing Service run." Next, you must perform the steps described in the following chapter.

- If the server is using an X.25 network, see the following chapter.
- To add an IRS circuit, see the following chapter.

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.
!
```

5. Adding X.25 networks and IRS circuits

In the previous chapter, you ran the Internetwork Routing Service in order to access a remote Clearinghouse. In this chapter, you specify communications parameters the IRS will use.

Overview

If your IRS will be communicating over an X.25 network, you need to add an X.25 network, add an X.25 SVC circuit, then start the Internetwork Routing Service.

If you are not using an X.25 circuit, you must add an auto-dialed, manually dialed, or dedicated circuit.

Procedures

This chapter contains the following procedures:

Adding an X.25 Network
Use this procedure to add an X.25 network.

Adding an Internetwork Routing Service circuit
Use this procedure to add an IRS circuit.

Starting the Internetwork Routing Service
Use this procedure to start the IRS.

Completing the installation
Use this procedure to complete the installation of X.25 networks and IRS circuits.

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.

Prerequisites

See the Internetwork Routing Service Worksheet for the following information:

- The port number
- The local DTE address for the network
- The X.25 network profile
- The protocol ID.

Step-by-step

1. Log on and enable in the Internetwork Routing Service context.
2. Type **Add X25 Network** and press RETURN.

```
Enter local port number (0..63):
```

3. Type the port number and press RETURN.

```
Enter local DTE address:
```

4. Type the numbers identifying the local DTE address of this X.25 network and press RETURN.

```
Select network profile
1   Accunet.x25
2   DatexP.x25
3   DDX.x25
4   DDX80.x25
5   DDXInt.x25
6   Standard.x25
7   Telenet.x25
8   Tymnet.x25
Enter choice number:
```

5. Type the number that identifies the type of network profile to use and press RETURN.

   If there is no specific X.25 profile option listed for your network, select "Telenet.x25." This is a generic standard with parameter negotiation. If your network does not support parameter negotiation, select "Tymnet.x25." This prompt is not displayed if only one X.25 profile exists on the server.

```
Protocol ID:
```

6. Using uppercase letters, type the eight hexadecimal digits that represent the protocol ID you want to assign for internetwork routing. Press RETURN. To accept the default setting, "FFFFFFFF," simply press RETURN.

```
Confirm X25 network information (Y/N):
```

7. Type **Y** or **N** at the "Confirm X25 network information" prompt and press RETURN.

   Y Enters the X.25 network information.

   N Cancels this process.

```
Done.
```

Wrap-up

When you see the message "Done," you have successfully defined the X.25 network. Next, add an Internetwork Routing Service circuit as described later in this chapter.

Example

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

```
!Internetwork Routing Service
IRS!Add X25 Network
    Enter local port number (0..63) 0
    Enter local DTE Local address: 4150005
    Select Network profile
    1   Accunet.x25
    2   DatexP.x25
    3   DDX.x25
    4   DDX80.x25
    5   DDXInt.x25
    6   Standard.x25
    7   Telenet.x25
    8   Tymnet.x25
    Enter choice number: 2
    Protocol ID: FFFFFFF
    Confirm X25 network information (Y/N): Y
    Done.
IRS!
```

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.
- See the Internetwork Routing Service Worksheet 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 type of dialing hardware
  — The line speed
  — If the equipment is full or half-duplex
  — The circuit description
  — The phone number.

  If you are configuring a manually dialed or dedicated circuit:

  — The local port number
  — Whether the circuit is autostarted
  — The type of dialing hardware
  — The line speed
  — If the equipment is full or half-duplex
  — 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** and press RETURN.

```
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 and press RETURN.
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 and press RETURN.

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

6. Type **Y** or **N** at the "Autostart" prompt and press RETURN.

   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 and press RETURN.

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

8. Type **Y** or **N** at the "Confirm circuit information" prompt and press RETURN.

Y Confirms the information and adds the circuit.

N **Return to step 5** of the X.25 SVC procedure.

```
Done.
IRS!
```

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

```
Enter local port number (0..63):
```

5. Enter the local port number and press RETURN.

```
Select Dialing hardware
1   Hayes
2   RS366
Enter choice number:
```

6. Type **1** or **2** to select the type of dialing hardware and press RETURN.

```
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:
```

7. Type the number for the line speed and press RETURN.

```
The equipment connected to this port is
1   full duplex
2   half duplex
Enter choice number:
```

8. Type the number that matches your equipment type and press RETURN.

```
Description:
```

9. Type the circuit description and press RETURN.

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

10. Type **Y** or **N** to add a phone number to the phone list and press RETURN.

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

```
Phone number:
```

    a. Type the phone number (for example, **213-555-3333**) and press RETURN.

```
Phone number description:
```

    b. Type a description for the phone number and press RETURN.

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

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

    N **Continue with step 11** of this procedure.

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

11. Type **Y** or **N** at the "Confirm circuit information" prompt and press RETURN.

    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. Next, start the Internetwork Routing Service as described later in this chapter.

Example

This example shows adding an auto-dialed circuit running at 9600 bps.

```
IRS!Add Circuit
    Circuit types
    1   X.25 SVC
    2   Auto-dialed
    3   Manually dialed
    4   Dedicated
    Enter choice number: 2
Enter local port number (0..63): 0
Select Dialing hardware
1   Hayes
2   RS366
Enter choice number: 1
    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):
    Confirm circuit information (Y/N): Y
Done.
```

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

```
Enter local port number (0..63):
```

5. Enter the local port number and press RETURN.

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

6. Type **Y** or **N** to autostart the line and press RETURN.

   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 Dialing hardware
1   Hayes
2   RS366
Enter choice number:
```

7. Type **1** or **2** to select the type of dialing hardware and press RETURN.

```
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:
```

8. Type the number for the line speed and press RETURN.

```
The equipment connected to this port is
1   full duplex
2   half duplex
Enter choice number:
```

9. Type the number that matches the duplex setting on your equipment and press RETURN.

```
Description:
```

10. Type the circuit description and press RETURN.

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

11. Type **Y** or **N** at the "Is this circuit part of a clusternet?" prompt and press RETURN.

    Y Displays this prompt:

```
Clusternet number:
```

    Type the clusternet number and press RETURN.

    N **Continue with step 12** of this procedure.

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

12. Type **Y** or **N** at the "Confirm circuit information" prompt and press RETURN.

    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. Continue with the procedure "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
Enter local port number [0..63]: 0
Should this line be autostarted (Y/N): N
Select Dialing hardware
1    Hayes
2    RS366
Enter choice number: 1
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: 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!
```

Starting the Internetwork Routing Service

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

Step-by-step

1. Type **Start Service** and press RETURN.
2. Type the numbers for the Internetwork Routing Service and press RETURN.
3. If you did not configure your circuits to run automatically, type **Start Circuit** and press RETURN.
4. Type the number of the circuit you are starting and press RETURN.
5. Type **Show Logged On User** to verify that you have domain access and press RETURN.
6. Type **Register Server** and press RETURN.
7. Type **Internetwork Routing Service** and press RETURN.

   If you are already in that context, **skip to step 8.**
8. Type **Register** and press RETURN.

Wrap-up

When you see the message "Done," continue with the procedure "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!
```

Completing the installation

To complete the installation of your services, type **proceed** and press RETURN.

Wrap-up

Turn to the service-specific chapters in the *Services Setup Guide* to initialize and set up each service.

A. Installing the software in a network installation drawer

This appendix covers procedures you use to install the services software in a network installation drawer.

Overview

If you are adding a new server to your network, it is often more convenient to perform the basic installation procedures, and then download all of the desired services application software from the network. You do not have to locate and handle the original floppy disks.

This Appendix contains information you need to know to copy the files from the floppies into the proper folders.

Prerequisites

- You must have an XGV-PC workstation available, connected to an existing network with a Clearinghouse Service, File Service, and a Boot Service installed with Etherboot Files, version 12.0.
- You must have a special "Installation Drawer," created using procedures described in the Boot Service chapter of the *Services Setup Guide*.

Step-by-step

Use the following procedure on an XGV-PC workstation to copy the contents of the diskettes to the correct folders.

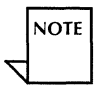
1. Copy the folder "Services 12.0 Installation Files" from the "XS-PC Services Network Installation Files" diskette to your XGV-PC workstation desktop.

You can copy the folder "Services 12.0 Installation Files" from the floppy directly to the Installation Drawer and bypass your desktop if you do not have enough disk space.

2. Copy all of the files from all of the diskettes to the folder "Services 12.0 Installation Files" on your desktop or in your installation drawer. There is one exception: do not copy any files from the diskette labeled "Xerox Services/PC Services Software Installer".
3. After copying all of the files, open the "Services 12.0 Installation Files" folder.
4. From the directory folder on your desktop, open the Network Installation drawer:

(Organization:Domain:FileService)/fileserver/Installation Drawer

5. In the "Services 12.0 Installation Files" folder, select the file "Xerox Services Installation Options. bountyscript", and move it to the top level directory of the Installation Drawer.
6. Close the "Services 12.0 Installation Files" folder and move it to the top level of the Installation Drawer.



The *Guide to System Administration Activities* has a list of the required files for each service. Refer to this list if you need to conserve disk space and only want to copy selected services to the "Services 12.0 Installation Files" folder.

B. Setting time parameters

This appendix covers procedures you use to set time parameters on a server that does not have access to a Xerox time service.

Step-by-step

1. Type the offset for your Standard Time (even if you are currently observing Daylight Saving Time) at the "Time zone offset from Greenwich (-12...12)" prompt and press RETURN. Use the following as a guide.

   -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)

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

3. Type the appropriate number at the "First day of Daylight Savings Time (0...366)" prompt. Use the following as a guide.

   0 Parts of the United Sates that do not use daylight savings time.

   91 Western Europe, including the United Kingdom.

   98 Parts of the United States and Canada that observe Daylight Saving Time.

4. Type the appropriate number at the "Last day of Daylight Savings Time (0...366)" prompt. Use the following as a guide.

0 Parts of the United Sates that do not use Daylight Saving Time.

274 Western Europe, excluding the United Kingdom.

303 United Kingdom

305 Parts of the United States and Canada that observe Daylight Saving Time.

5. Type Y at the "Do you wish to change the time (Y/N)" prompt.

   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. Use the following format.

   MM/DD/YY HH:MM:SS

   For example, 10/27/91 09:10:00

7. Type **Y** at the "Okay? (Y/N)" prompt and press RETURN.

   Y Confirms the date and time you entered.

   N Cancels the process and returns you to step 1.

8. Return to Chapter 2.

Index

A

Add Circuit, adding IRS circuits, 5-7
Add Domain, Genesis Clearinghouse Service installation, 3-4
Adding
  IRS circuits, 5-1, 5-5 to 5-15
  X.25 networks, 5-1 to 5-4
Add User, Genesis Clearinghouse Service installation, 3-5
Add X25 Network, 5-2
Any user, defined, 1-7
Auto-dialed circuits, adding, 5-5 to 5-6, 5-8 to 5-11

B

Backup and Restore Guide, described, 1-2
Basic Services Maintenance Guide, described, 1-2
Booting, *see* Starting

C

Change Domain Access, Genesis Clearinghouse Service installation, 3-7
Change Organization Access, Genesis Clearinghouse Service installation, 3-7
Circuits, IRS, 5-1, 5-5 to 5-15
Clearinghouse installations, *see* Genesis Clearinghouse Service installation; Non-Genesis Clearinghouse installation
Clearinghouses, remote, 4-1 to 4-3
Clearinghouse Service, Genesis Clearinghouse Service installation, 3-4
Commands, how to use, 1-4
Communication Services Maintenance Guide, described, 1-2, 1-3
Completing installation
  adding X.25 networks and IRS circuits, 5-18
  Genesis Clearinghouse Service installation, 3-13
  installing services, 2-27
Conventions, documentation, 1-6
Copying
  files to installation drawer, A-2

D

Dedicated circuits, adding, 5-5 to 5-6, 5-12 to 5-15
Disks, Xerox disk, 2-7 to 2-9
Documentation conventions, 1-6
Drawers, network installation drawer, A-1, A-2

E

Enable
  Genesis Clearinghouse Service installation, 3-8
  logging on and enabling, 1-7, 1-8, 1-9
Enabled user, defined, 1-7
Enabling, 1-7 to 1-9
Entering
  network number, 2-19 to 2-23
  server name, 2-19 to 2-23

F

Fault Isolation Process, described, 1-3
Files
  copying to installation drawer, A-1, A-2

G, H

Genesis Clearinghouse Service installation, 3-1 to 3-13
  choosing correct procedures, 2-4
  defined, 2-1
  prerequisites, 2-2
Genesis IRS installation, 4-1 to 4-4
  choosing correct procedures, 2-5
  defined, 2-1
  prerequisites, 2-2 to 2-3
  see also Internetwork Routing Service
Guide to System Administration Activities, described, 1-2

I, J, K

Installation, completing
  adding X.25 networks and IRS circuits, 5-18
  Genesis Clearinghouse Service installation, 3-13
  installing services, 2-27
Installation drawers, network installation drawer, A-1, A-2
Installations, *see* Genesis Clearinghouse Service installation; Genesis IRS installation; Non-Genesis Clearinghouse installation
Installing
  software in network installation drawer, A-1, A-2
  system software, 2-10 to 2-12
Installing services, 2-1 to 2-27
  basic installation procedures, 2-3, 2-4
  overview, 2-1
  prerequisites, 2-2 to 2-3
Install Service, installing services, 2-25
Interactive Terminal Service User Guide, described, 1-3
Internetwork Routing Service
  adding IRS circuits, 5-5
  adding X.25 networks, 5-2
  starting IRS, 5-16
Internetwork Routing Service (IRS)
  adding circuits, 5-1, 5-5 to 5-15
  starting, 5-16
  see also Genesis IRS installation
Introduction to Xerox Services Software, described, 1-2
IRS, *see* Genesis IRS installation; Internetwork Routing Service

L

Library Directory, described, 1-2
Logged on user, defined, 1-7
Logging on, 1-7 to 1-9
Logon
  Genesis Clearinghouse Service installation, 3-8
  logging on and enabling, 1-7, 1-8

M

Manually dialed circuits, adding, 5-5 to 5-6, 5-12 to 5-15

N

Names, server name, 2-19 to 2-23
Network Administration Library, described, 1-2 to 1-3
Network installation drawer, installing software in, A-1, A-2
Network number, entering, 2-19 to 2-23
Networks, X.25 networks, 5-1, 5-2 to 5-4
Non-Genesis Clearinghouse installation
  choosing correct procedures, 2-4
  defined, 2-1
  prerequisites, 2-2
Numbers, network number, 2-19 to 2-23

O

Options, software options, 2-15 to 2-18
Overview

adding IRS circuits, 5-1
adding X.25 networks, 5-1
Genesis IRS installation, 4-1
installing services, 2-1
installing software in network installation drawer, A-1

P, Q

Partitioning Xerox disk, 2-7 to 2-9
Prerequisites
Genesis Clearinghouse Service installation, 3-1
how to use, 1-4
installing services, 2-2 to 2-3
installing software in network installation drawer, A-1
Procedures
adding IRS circuits, 5-1, 5-5 to 5-15
adding X.25 networks, 5-1, 5-2 to 5-4
Genesis Clearinghouse Service installation, 3-1 to 3-13
how to use, 1-4 to 1-5
Proceed
completing installation (adding X.25 networks and IRS circuits), 5-18
completing installation (Genesis Clearinghouse Service installation), 3-13
completing installation (installing services), 2-27
entering network number and server name, 2-19

R

Register, starting IRS, 5-16
Register Server
Genesis Clearinghouse Service installation, 3-9
starting IRS, 5-16
Remote Clearinghouses, running Genesis IRS installation to access, 4-1 to 4-3
Running, *see* Starting
Run Service
Genesis Clearinghouse Service installation, 3-2
Genesis IRS installation, 4-2

S

Server name, entering, 2-19 to 2-23
Services Installer utility, booting, 2-6
Services, installing, 2-1 to 2-27
basic installation procedures, 2-3 to 2-27
overview, 2-1
prerequisites, 2-2 to 2-3
Services Setup Guide, described, 1-2
Set Remote Directory, installing services, 2-24
Setting software options, 2-15 to 2-18
Show Logged On User
Genesis Clearinghouse Service installation, 3-9
starting IRS, 5-16
Software
installing in network installation drawer, A-1, A-2
system software, 2-10 to 2-12
Software options, setting, 2-15 to 2-18
Start Circuit, starting IRS, 5-16
Starting
Genesis Clearinghouse Service installation, 3-2 to 3-13
Genesis IRS installation, 4-1 to 4-4
IRS, 5-16
Services Installer utility, 2-6
system, 2-13 to 2-14
Start Service
Genesis Clearinghouse Service installation, 3-5
starting IRS, 5-16
Stop Service, Genesis Clearinghouse Service installation, 3-3
SVC circuits, *see* X.25 SVC circuits
Switched virtual circuits, *see* X.25 SVC circuits
System, starting, 2-13 to 2-14
System Messages, described, 1-3

System software, installing, 2-10 to 2-12

T

TCP-XNS Gateway Service User Guide,
described, 1-3

U, V, W

Users
any user, 1-7
enabled user, 1-7
logged on user, 1-7
Utilities, Services Installer utility, 2-6
Utility Services Maintenance Guide,
described, 1-2

X, Y, Z

X.25 networks, adding, 5-1, 5-2 to 5-6
X.25 SVC circuits, adding, 5-7 to 5-9
Xerox disk, partitioning, 2-7 to 2-9
Xerox Services/PC Services Software Installation Guide
documentation conventions, 1-6
how to use, 1-4 to 1-5
introduction to, 1-1 to 1-9

Customer Comments

XEROX®

Xerox Services/PC
Services Software Installation Guide

Our goal is to improve the organization, ease of use, and accuracy of this library. Your comments and suggestions will help us tailor our manuals to better suit your needs.

Name:_____ Company:_____

Address:_____ City:_____

State:_____ Zip:_____

Please rate the following:

1. Is the organization suitable for your needs?	Excellent	Good	Fair	Poor
2. Can you easily find the information you need?	Excellent	Good	Fair	Poor
3. Are the illustrations useful?	Excellent	Good	Fair	Poor
4. Overall how do you rate the documentation?	Excellent	Good	Fair	Poor

Did you find any errors?
Page number / Error

How can we improve the documentation?

We appreciate your comments. Thank you for taking the time to reply.

Fold here

No Postage
Necessary
If Mailed
In the
United States

BUSINESS REPLY MAIL

First Class Permit No. 229 El Segundo, CA

Postage will be paid by Addressee

Xerox Corporation
Attn: Product Education WS, N2-15
701 South Aviation Boulevard
El Segundo, California 90245

XEROX

Xerox Corporation
475 Oakmead Parkway
Sunnyvale, CA 94086

XEROX® and all XEROX products mentioned in this publication are trademarks of XEROX CORPORATION.
Product appearance and/or specifications subject to change without notice.
Printed in U.S.A.

610E26180