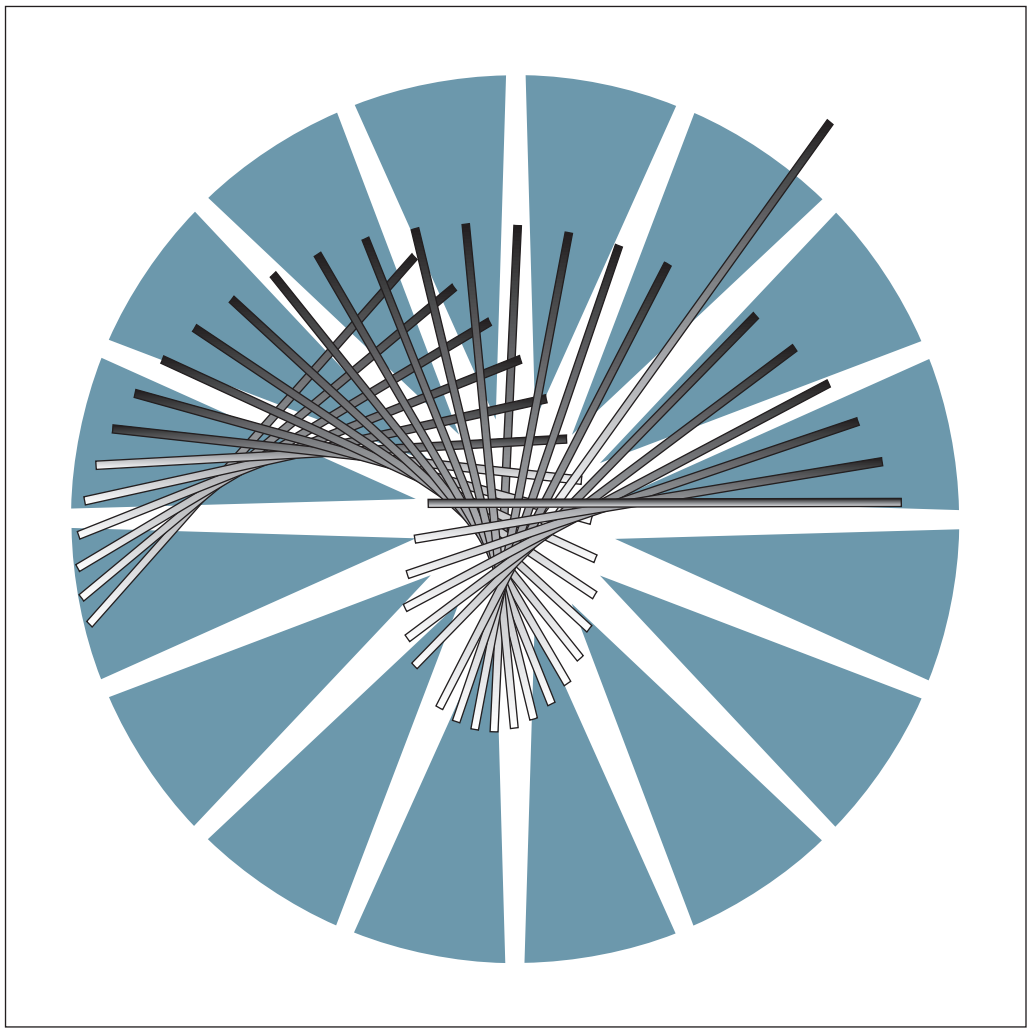
3745 Communication Controller All Models
3746 Nways Multiprotocol Controller Model 900

Console Setup Guide



SA33-0158-10

3745 Communication Controller All Models
3746 Nways Multiprotocol Controller Model 900

Console Setup Guide

SA33-0158-10

Note!

Before using this information and the product it supports, be sure to read the general information under “Notices” on page xi.

Eleventh Edition (October 1998)

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This product meets IBM Safety standards as referred to in *Safety Information*, GA33-0400.

About this Guide

This guide includes information on remote access programs that enable remote user workstations to access and control the service processor of a 3745/3746-900. Information on remote access programs includes DCAF*[1] Telnet, and Console for Java**.

Procedures are given on configuring remote workstation access to a service processor across different network environments.

Information is also included on the following:

- Installing and using DCAF to access the service processor for Modem, APPN/HPR, SNA, LAN-TCP/IP, and LAN-APPC links.
- Using Console for Java to access the service processor. Using IP protocol, Console for Java can be run either as a web-based program, or as a Java program.
- Customizing Communications Server (CS/2*)[2].
- Using Telnet to access the service processor or network node processor for Internet Protocol (IP) communications.
- Installing local, alternate, and remote Maintenance and Operating Subsystem (MOSS) consoles for the 3745 Models 170 to 610.
- Modem settings.

Conventions Used in this Guide

When used in this guide, the term:

3745 Refers to the IBM 3745 Models 130 to 170 and 210 to 610 with 3746 Expansion Unit Models A11, A12, L13, L14, and L15.

3745 Model A Refers to the IBM 3745 Models 17A, 21A, 31A, 41A and 61A.

3746-900 Refers to the IBM 3746 Nways Multiprotocol Model 900.

3746-900 NN Refers to a function of the IBM 3746-900 operating as an APPN/HPR Network Node.

3746-900 IP Refers to a function of the IBM 3746-900 operating as an IP router.

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1 Tivoli Management Environment (TME*) 10 Remote Control contains the microcode for the Distributed Console Access Facility (DCAF) program.

2 CS/2 procedures in this guide are the same for CM/2 unless otherwise indicated.

Who Should Use this Guide

This guide is intended for:

- Network engineers
- System programmers
- System service personnel.

An understanding of teleprocessing, modem operations, APPN/HPR, and IP networking would be useful in reading this guide. Information is accessible online (help, guides and other materials) for information on:

- MOSS-E
- Controller Configuration and Management (CCM) application
- APPN/HPR and IP Control Point functions
- DCAF
- TCP/IP environment.

For more information, see the publications listed in “Bibliography” on page X-1.

How this Guide is Organized

This guide is divided into the following sections:

Chapter 1, “Introduction to Remote Access Programs” on page 1-1 to “Starting a Session” on page 9-2

Describes how to configure remote workstations in DCAF to monitor and control a service processor running MOSS-E. Example configurations are given of five types of link (LAN-APPC, LAN-TCP/IP, Modem, SNA, and APPN) via DCAF to a target service processor.

Also describes how to configure a remote workstation in Telnet with access to the Network Node Processor (NNP) for IP communications.

Chapter 10, “Console for Java Remote Access” on page 10-1 to Chapter 12, “Installing Console for Java Program” on page 12-1

Describes how to configure remote workstations using the web-based or Java program-based Console for Java. Example configurations are given of two types of link (switched-line, and service ring LAN) via Console for Java to the target service processor.

Appendix A, “Setting Up Local, Alternate, or Remote Consoles” on page A-1

Describes how to configure the following equipment as local, alternate, or remote MOSS consoles attached to 3745:

- 3151 and 3153 Display Station.
- 3163 and IBM 3161 ASCII Display Station.
- Personal System/2* (Models 30 286, 50, 50Z, 60, 70, or 80).
- Personal Computer (PC), AT*, and XT* Model 286.

Appendix B, “Modem Setup” on page B-1

Describes the required settings for IBM and RSF modems.

Appendix C, “Configuration for a Two-Target Remote Workstation” on page C-1

Gives a scenario for configuring a two-target workstation.

A Bibliography, List of Abbreviations, Glossary, and Index follows at the end of this guide.

What is New in this Edition

This revised edition includes information on remote access via Console for Java, and a restructuring of the DCAF target service processor configuration procedures.

Where to Find More Information

For more information, see the Bibliography on page X-1 and the additional publications listed below:

- *DCAF: Installation and Configuration Guide*, SH19-4068.
- IBM Redbooks:
  - *TCP/IP Tutorial and Technical Overview*, GG24-3376
  - *TCP/IP Implementation in an OS/2 Warp Environment*, SG24-4730.

For OS/2*, consult the documents delivered as part of the OS/2 product package.

For the 3151, 3153, 3161, and 3163 display stations, refer to the terminal documentation. The following book should not normally be needed for setting up a PS/2 as a MOSS console; it does however contain supplementary information that you may find useful:

- *IBM Operating System/2 Extended Edition: System Administrator's Guide for Communications*, P/N 90X7908.

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This product is Year 2000 ready. When used in accordance with its associated documentation, it is capable of correctly processing, providing, and/or receiving date data within and between the 20th and 21st centuries, provided all other products (for example, software, hardware, and firmware) used with the product properly exchange accurate date data with it.

For more information, refer to:

http://www.ibm.com/year2000

Chapter 1. Introduction to Remote Access Programs

PS/2 (or equivalent) workstations can be used to remotely access the service processor (and network node processor, if installed). These workstations access the service processor MOSS-E and Controller Configuration and Management (CCM) by using remote access programs, for example DCAF[1] and Console for Java. The operator at a remote workstation using a remote access program can either:

- Control a target service processor with a remote workstation keyboard and mouse.
- Monitor the target service processor in a window displayed on the remote workstation.

The **remote workstation operates** as a **controlling workstation** and the **service processor** as a **target workstation**. When an active session connection is established between a remote workstation and the service processor, you can perform MOSS-E, CCM, APPN and IP functions as though seated in front of the service processor.

Chapter 1 to Chapter 12 of this guide include:

- Information about the parameters needed to configure consoles as remote (controlling) workstations
- Procedures for configuring remote (controlling) workstations.

Remote Workstations Using Console for Java

Console for Java can be run as a web-based or Java program-based remote access control program that allows a remote workstation to control the service processor across the network. Console for Java provides the same tools for controlling remote service processors as DCAF. While DCAF is more suitable for SNA-based networking, Console for Java takes advantage of the flexibility in IP networking.

Console for Java can be run by the controlling workstation on any platform (OS/2*, Windows 95**, Windows 98**, Windows NT**, Macintosh**, and AIX*/UNIX**) and can control both graphic based programs (OS/2 Presentation Manager), and character mode programs (OS/2 and DOS terminals).

Microcode Support Options for Console for Java

Microcode level F12720 installed in the service processor supports DCAF or Console for Java remote control access.

[1] Tivoli Management Environment (TME) 10 Remote Control contains the microcode for the Distributed Console Access Facility (DCAF) program (PN 5697RCL). However, DCAF is referred to throughout this guide.

Remote Workstations Using DCAF

Figure 1-1 illustrates five types of remote workstation access to the service processor through using DCAF.

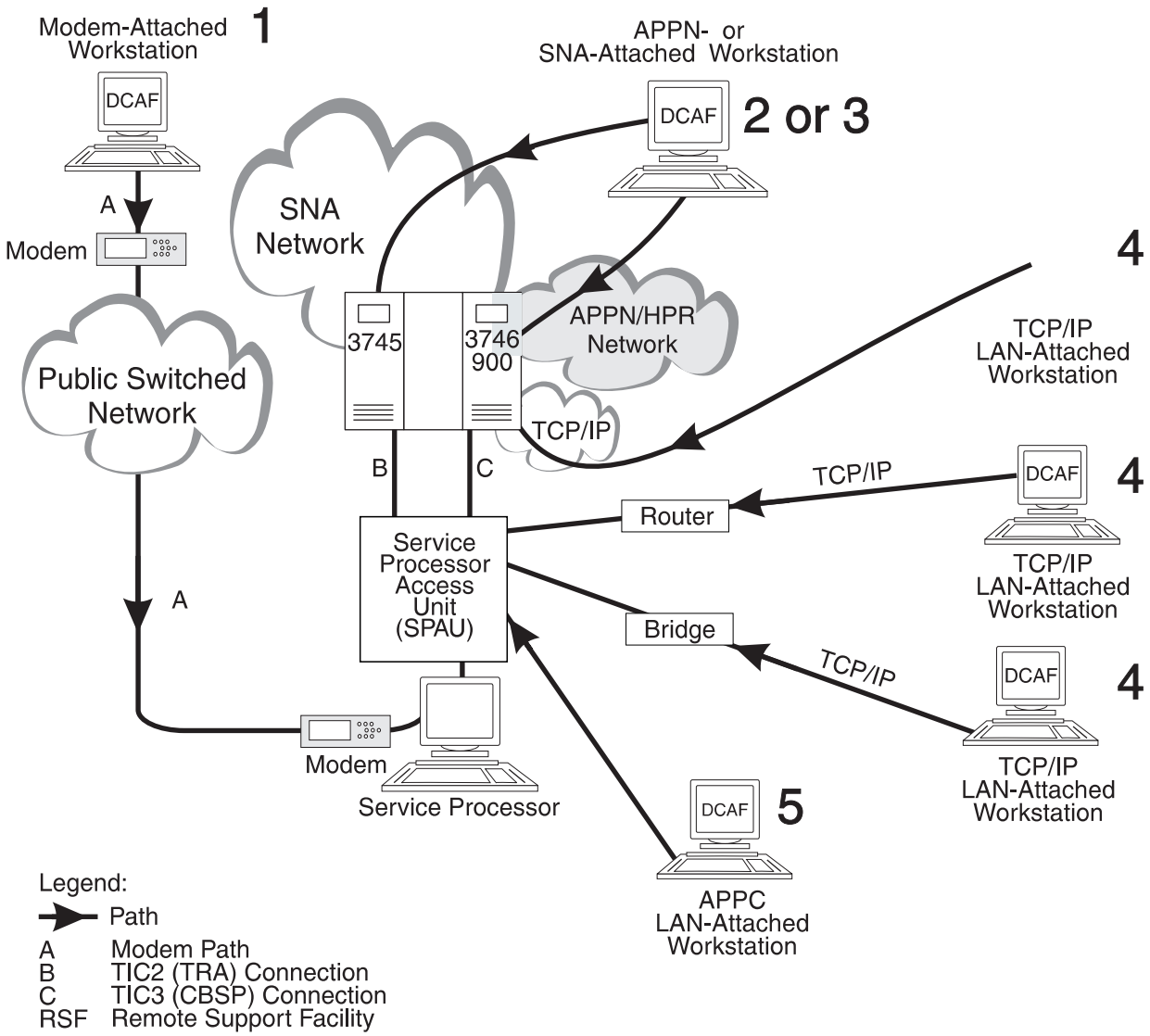


Figure 1-1. DCAF Console Attachments

The numbers in the figure above represent the following console connections to the service processor:

1, **Modem-attached** consoles that use the public switched telephone network to access the service processor via a Synchronous Data Link Control (SDLC) port and modem. For more information, see Chapter 4, “Modem-Attached Remote Workstation Configuration.”

2, **APPN-attached** console communicating with the service processor via an LU6.2 session over the network backbone. For more information, see Chapter 5, “APPN-Attached Remote Workstation.”

3 , **SNA-attached** console communicating with the service processor via an Logical Unit (LU) 6.2 session over the network backbone. For more information, see Chapter 6, “SNA-Attached Remote Workstation.”

4 , **TCP/IP LAN-attached** console attached to the SPAU via a bridge or a router with appropriate filtering. For more information, see Chapter 7, “TCP/IP LAN-Attached Remote Workstation.”

5 , **APPC LAN-attached** console attached directly to the Service Processor Access Unit (SPAU), or indirectly through a token-ring LAN bridge. For more information, see Chapter 8, “APPC LAN-Attached Remote Workstation.”

Note: The port and modem can also be used for Remote Support Facility (RSF), Remote Technical Assistance Information Network (RETAIN*), and Alert calls.

A remote console can be configured for all categories of access. This means that a single console at a central control site could be LAN-attached to a local service processor while providing APPN and modem access to other service processors.

Attention!

Sending an alert to NetView via a service processor SDLC port or calling RSF has a higher priority for the MOSS-E than DCAF, SDLC, or SNA remote sessions.

A more complex two-target (two service processors) configuration is described in Appendix C, “Configuration for a Two-Target Remote Workstation.” Each target uses a LAN, a Modem, and SNA to link to the remote workstation.

Notes:

- In the parts of this guide that refer to the 3746 Models A, “console” means an “OS/2 workstation.”
- The keyboard and mouse of the service processor cannot be used when it is being controlled by a remote workstation. However, you can regain control of the keyboard and mouse by using DCAF hot keys, Alt T pressed together.

  If a service processor is not working, check if it is being controlled by a remote workstation.
- A service processor can only be controlled by one remote workstation at a time.
- A remote workstation can be configured to have access to more than one service processor.
- DCAF is a separate product from the IBM Communication Controllers. Installing DCAF on a PS/2 (or equivalent) workstation is the customer's responsibility. See Chapter 2, “Program Support for Remote Workstation Access” for details.

DCAF Logon Password and Service Processor Security

To access a target service processor using a remote workstation, you must first establish a DCAF link with certain parameters unique to the target service processor. This is explained later in this guide.

Passwords provide additional security for the service processor:

1. The **DCAF target password** establishes the link for accessing the target service processor. It can be unique for each target service processor.

   There is no factory default password. Press Enter when you are asked for the password. To install or change a password, use **Customize DCAF Target Settings** on the service processor **Configuration Management** menu.

2. You must enter a **local MOSS-E password** (controller or service processor password) to log onto the MOSS-E and remotely control the service processor. See the *Planning Guide*, GA33-0457 for more information on these passwords.

Note: By default, the security level of the DCAF sessions between a remote console and the service processor is *non-secure* (password-only).

The security administrator and authentication components of DCAF can be used with the service processor to increase the security of the DCAF link.

Regaining Control of the Service Processor

During an active DCAF session, the remote workstation prevents the target service processor from responding to input from the keyboard or mouse.

However, the local service processor operator can use a hot key combination to override the controlling workstation and regain control of the service processor.

The default hot keys are Alt T pressed together.

Minimum Workstation (Remote Console) Configuration

This section contains an overview of the system requirements for remote workstations using DCAF. For detailed information, refer to the *DCAF Installation and Configuration Guide*, SH19-4068, provided with the DCAF installation diskettes.

Programming Requirements

You need the following minimum program levels on your workstation to remotely access the service processor:

- DCAF, Version 1.3.3 (also known as TME10 Remote Control, PN 5697RCL).
- OS/2 Version 2.1 or higher with Warp 3.x and LAPS Version 5.10, or Warp 4.x, with Multiple Protocol Transport Services (MPTS) for OS/2 4.x.
- CM/2 Version 1.11 or higher, or CS/2 Version 4.1 (with OS/2 Warp, MPTS, and TCP/IP).
- MPTS Version 2.2 or higher for LAN-attached workstations.
- Transmission Control Protocol/Internet Protocol (TCP/IP) Version 2.0 or higher for TCP/IP-attached workstations.

The following additional program support is needed for specific types of console attachment:

- Network Transport Services/2 (NTS/2) for LAN-attached and SNA-attached consoles that connect to SNA networks via a LAN.
- To access the service processor via an SNA or APPN network backbone, check that the following programming support is available:
  1. DCAF remote workstations and gateway workstations are configured as physical units (PUs) type 2.1. If the DCAF workstation is downstream from a 3174 control unit, then the 3174 must have either one of the following:
     – Configuration Support B plus 8Q0800 Programming Request for Price Quotation (PRPQ).
     – Configuration Support C (APPN feature).
  2. NCP V5 R2, operating under Virtual Telecommunications Access Method (VTAM*) V3 R2 for 3720 and 3745 Communication Controllers on the network backbone.
  3. NCP V4 R3, operating under VTAM V3 R2 for 3725 Communication Controllers on the network backbone.

Later releases of these programs may be used unless otherwise stated.

Hardware Requirements and Recommendations

For remote workstations, IBM recommends using the following items:

- PS/2s (or equivalent) with at least a 80386 microprocessor and Video Graphics Adapter (VGA) display such as an IBM 8515 color display. A Pentium**-level microprocessor is recommended.
- A hard disk of at least 80 MB and at least 10 MB of RAM.
- A pointing device (usually a mouse).

  To find the equivalent keys on IBM non-QWERTY keyboards, refer to OS/2 documentation for keyboard layouts or codes.

The following is recommended for different types of console attachments:

- LAN-attached console (SNA or TCP/IP type), an IBM Token-Ring Network Adapter/A operating at 16 Mbps.
- Modem-attached console, a synchronous modem (such as IBM 7855, 7857, 7858, or equivalent) and a multi-protocol adapter (MPA) card.
- Modem-attached console with an asynchronous modem (for example, an IBM 7858 or equivalent) connected to the COM1 port.

Technical information on the service processor is provided in the *Planning Guide*.

Chapter 2. Program Support for Remote Workstation Access

Required Program Support

First collect the worksheets from the *Planning Guide*, GA33-0457, at your workstation. These contain the parameters that are required for customizing the service processor.

Make sure that you have a workstation already installed and running OS/2 (see “Minimum Workstation (Remote Console) Configuration” on page 1-4).

Use the OS/2 command **SYSLEVEL** to verify the programs you have already installed on the workstation and the Service Pak levels you are using.

Prepare the following:

- Installation diskettes for CS/2 Version 4.1 or higher or CM/2 Version 1.11 or higher.
- LAPS Version 2.2 or higher.
- DCAF Version 1.3 or higher installation diskettes.
- TCP/IP Version 2.0 or higher installation diskettes.
- Information from the *Planning Guide* worksheets.

Installing DCAF

Support for DCAF is provided in microcode level F12720. Licenses for a new installation of DCAF is provided in PID 5799-XEN (RPQ P85585). This also provides a compliance with specifications for Year 2000 for existing DCAF installations and for new DCAF licenses. The DCAF (non-secure password) component is installed by the MOSS-E in the service processor on customer request.

Warning: The DCAF secure option, once selected on the service processor, is permanent. Re-enabling the non-secure password option requires restoring the microcode from CD-ROM.

When DCAF has been installed on your remote workstation, see “Customizing CS/2 and CM/2.”

Customizing CS/2 and CM/2

To enable a DCAF link between the remote workstation and the service processor, you will need to customize CS/2 (or CM/2).

Note: Procedures for CS/2 in this Guide are the same for CM/2 unless otherwise indicated.

Customizing a CS/2 Remote Workstation

This procedure applies to the following type of workstation connections to a network:

- Modem-attached.
- APPN-attached
- SNA-attached
- APPC LAN-attached

Depending on the workstation you are configuring, see:

- Chapter 4, “Modem-Attached Remote Workstation Configuration”
- Chapter 5, “APPN-Attached Remote Workstation.”
- Chapter 6, “SNA-Attached Remote Workstation”
- Chapter 8, “APPC LAN-Attached Remote Workstation”

Configuring Data Link Control (DLC) for a Service Processor

The following is a list of recommended CM/2 and CS/2 parameters for a remote workstation, enabling it to correspond with the DLC definitions of the service processor. Although they are a guide to help you with selecting parameters, you must supply the actual values that correspond to your network.

Create or Change the Token-Ring Network DLC Adapter Profile

The parameters for this screen apply to LAN- (APPC-type), SNA-, and APPN- (via a LAN) attached consoles.

Adapter number	**0**
Load DLC	**Yes**
Maximum number of link stations	**4**
Percent of incoming calls	**50**
Free unused link	**No**
Congestion tolerance	**80**
Maximum RU size	**2024**
Send Window Count	**4**
Receive Window Count	**4**
C&SM LAN ID	(Customer defined)
Send alert for beaconing	**Yes**

Create or Change the SDLC DLC Adapter Profile

The parameters for this screen apply to modem- and SNA- (SDLC) attached consoles.

Adapter number	**0**
Load DLC	**Yes**
Free unused link	**No**
Maximum RU size	**4096**
Send Window Count	**4**
Receive Window Count	**4**

Line type	**Switched**
Link station role	**Primary**
Line mode	**Constant request to send**
NRZI	**Yes**
Modem rate	**Full speed**
Data set ready timeout	**5**
XID repoll count	**10**
Non-XID repoll count	**7**

Installing TCP/IP

Follow the procedures in the TCP/IP installation procedure that come with the product that you are using.

Physical Installation

Any remote workstation or associated modem is installed by using procedures in the documentation provided with the product. For IBM 7855, 7857, 7858, or Hayes Modems, see “Configuring CS/2 Remote Workstations” on page 4-4.

Chapter 3. Using DCAF for Remote Access to the Service Processor

For more information about DCAF, see the *DCAF: Installation and Configuration Guide*, SH19-4068.

In this procedure, the service processor is the DCAF target workstation, and the remote workstation is the DCAF controlling workstation.

Starting a Session

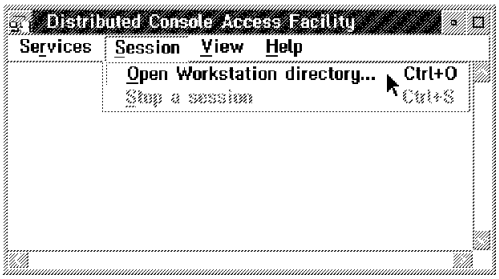
Use the following procedure to start a DCAF session that controls the service processor and the network node processor (NNP).

Step 1. Double-click the **Distributed Console Access Facility** icon.

Step 2. Double-click the 

icon.

Step 3. In the **Session** pull-down menu, select **Open Workstation directory**.



Step 4. Double-click the icon of the target service processor that you want.

Step 5. Enter the DCAF target password defined at “DCAF Logon Password and Service Processor Security” on page 1-4. If there is no password for the target workstation, click **OK**.

Step 6. Click **Yes** if you have a non-QWERTY keyboard (see “Hardware Requirements and Recommendations” on page 1-5).

Step 7. Click **Start a session** from the **Session** pull-down menu.

Step 8. Maximize the window to see the target service processor screen.

Note: If you are using an SDLC link that seems too slow, check your modem speed. If it is not at full speed, close the DCAF session and try a new SDLC connection. A better line might reduce the target response time.

Closing a Session

From the Remote Workstation

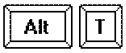
In the **Session** pull-down menu on the DCAF window action bar, click **Stop a session**.

Attention

Do not close the session by de-selecting “Enable DCAF Link/Operations” from the “SP Customization” function.

From the Target Service Processor

To close the session of the target service processor, use the DCAF hot keys,



pressed together.

Note

When your DCAF session is finished, make sure that SDLC link is disconnected. This frees SDLC resources for other tasks.

Chapter 4. Modem-Attached Remote Workstation Configuration

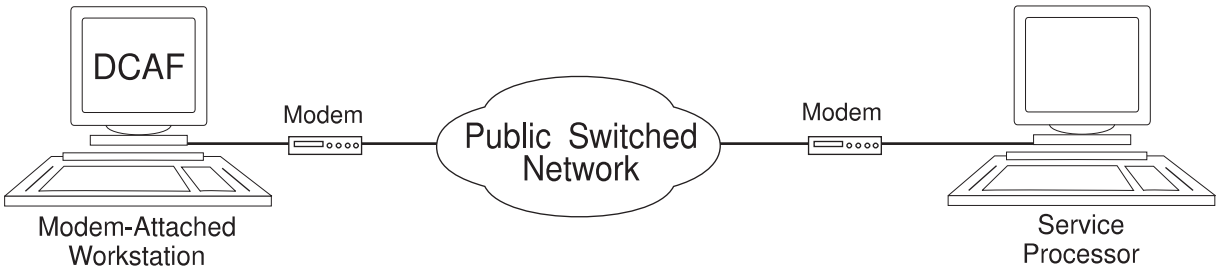


Figure 4-1. Modem-Attached Remote Workstation

This chapter shows you how to configure a DCAF session for controlling the service processor (see Figure 4-1).

If you have more than one target service processor

You must respect the parameter value matching rules given in Appendix C, "Configuration for a Two-Target Remote Workstation."

Configuring a Target Service Processor

Important

You can use the worksheets in the *Planning Guide*, GA33-0457 to record the necessary parameter values described in this section.

This section describes the following:

- The MOSS-E configuration for a DCAF link to the communication controller
- The MOSS-E parameters required for use in the controlling workstation.

Parameter Values that Must Be the Same

Table 4-1 gives the sets of MOSS-E parameters that must have the same value in both the remote workstation and the target service processor.

Table 4-1. Identical Target and Controlling Parameters (APPN)

In Service Processor	In Remote Workstation
Local Node Network ID (Figure 4-2 on page 4-3)	**Partner network ID** (Step 19 in the configuration procedure)
SDLC LU name (Figure 4-3 on page 4-3)	**Partner node name** (Step 19 in the configuration procedure) **Partner LU alias** (Step 19 in the configuration procedure)

Each modem configuration procedure in this chapter explains how to find these parameters in the remote workstation.

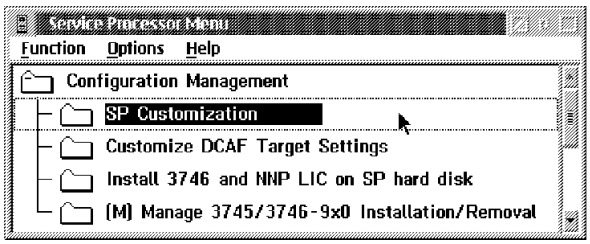
Configuring the Service Processor in MOSS-E

The following procedure explains how to find, record, and configure the service processor parameters:

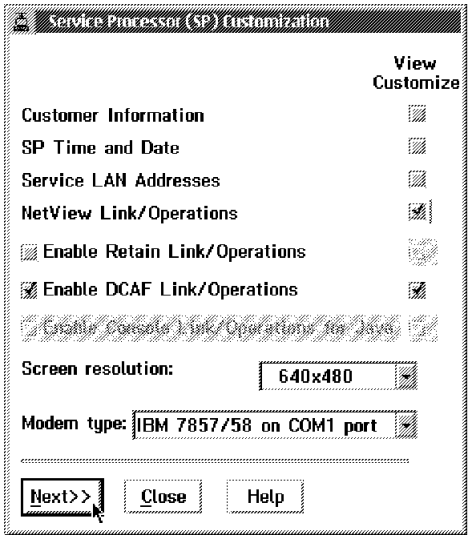
Step 1. In MOSS-E, double-click the **Service Processor** object.

Step 2. Click **Configuration Management**.

Step 3. Double click **SP Customization**.



Step 4. Select **Enable DCAF Link/Operations** and select **View Customize** in the parallel column, **NetView Link/Operations** and click **Next**.



Step 5. Record the values in the **Network ID** field (see Figure 4-2 and refer to Table 4-1 on page 4-1) and click **Next** and **Next** again.

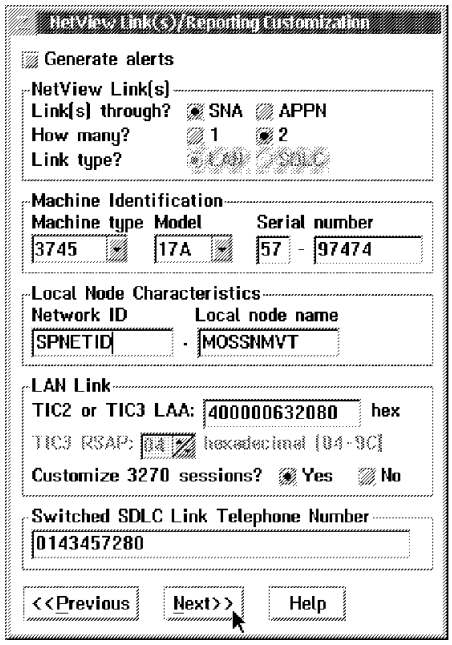


Figure 4-2. NetView Link/Reporting Customization

Step 6. Record the value in the **SDLC LU name** field.

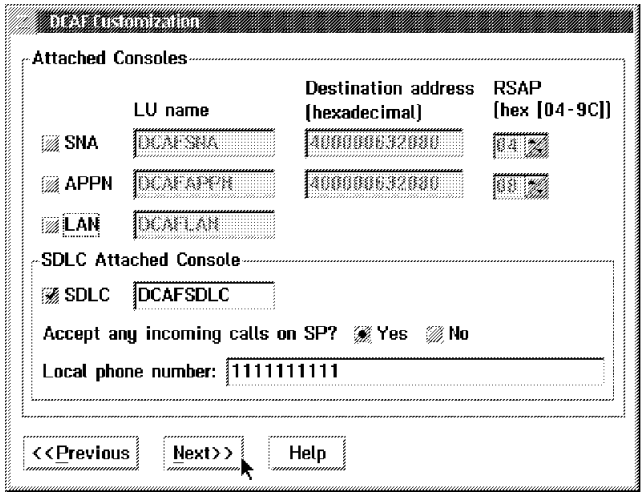


Figure 4-3. DCAF Customization

Step 7. Set **Accept any incoming calls on SP?** to **Yes**.

Step 8. Enter the **Local phone number**, click **Next**, click **Close** and **Yes** to save the configuration.

Step 9. From Desktop Manager, shutdown and restart the service processor.

Step 10. Go to “Remote Workstation Modems” on page 4-4.

Remote Workstation Modems

Important!

Modem configurations in CS/2 (or CM/2) will not work unless your modem is set correctly.

The procedures in "Configuring CS/2 Remote Workstations" and Appendix B, "Modem Setup" on page B-1 have been optimized for DCAF.

Modem Settings

If you do not have one of the recommended modems, make sure you have an equivalent modem, with the same mode settings (ASYNC) as the service RSF modem.

For each of the modems listed in Table 4-2, this guide supplies a modem setup procedure in Appendix B, "Modem Setup" on page B-1.

Table 4-2. Settings for Recommended Modems

Modem and Mode	Settings Page Number
7857 ASYNC on COM1	B-5
7858 ASYNC on COM1	B-6
Hayes ASYNC	None needed

Configuring CS/2 Remote Workstations

Important

The procedures in this section are the same in CM/2 unless otherwise indicated.

The table in this section give the page number of the procedures for configuring CS/2 (or CM/2) in your workstation. The specific procedure that you need depends on a combination of the following:

- Service processor
- Service processor modem
- Workstation modem.

Configuring the Remote Workstation Modem

Table 4-3 on page 4-5 gives the page number of the CS/2 (or CM/2) configuration procedure that corresponds to your service processor (6275, 3172, or 7585).

1. In the table, find the **row** with the service processor modem, connection type and mode.
2. Find the **column** with the remote workstation modem, connection type and mode.
3. The intersection of the **row** and **column** gives the page number of the procedure that you need to configure in CS/2 (or CM/ 2).

Procedures for Service Processors 6275, 3172, 7585

Table 4-3. IBM Modems for Remote Workstations and Target Service Processors 6275, 3172, and 7585

Service Processor Connection Type and Mode	Service Processor Modem Type	Remote Workstation Modem Type			
		IBM 7857, 7858[1], or Hayes[1] AT Compatible Modem Serial Asynchronous Port Connection			
COM1	7857	4-6	4-6	4-6	4-6
	7858[1]	4-6	4-6	4-6	4-6
	Hayes[1]	4-11	4-11	4-11	4-11

Notes:

1. For increased data transfer speed, IBM recommends the IBM 7858 modem or a Hayes compatible modem.

7855 Asynchronous Modem to Service Processor 6275, 3172, and 7585

Step 1. Double-click the **Communications Server** icon on your desktop.

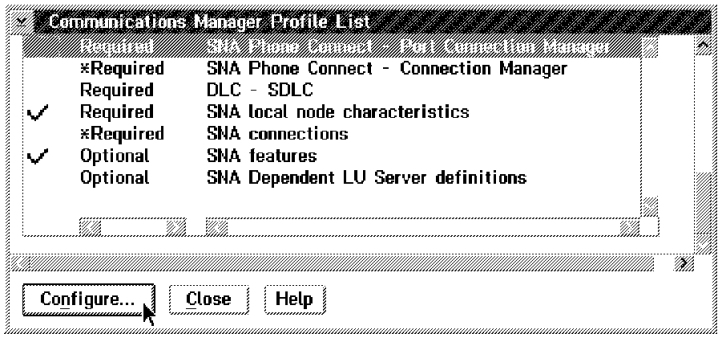
Step 2. Click **Setup**.

Step 3. Under **Directories**, double-click the CMLIB directory and double-click **I7855ASY** to display the configuration file.

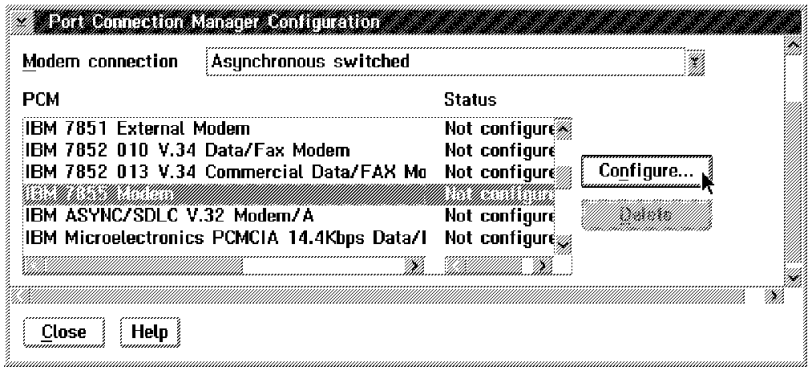
Step 4. Click **OK**. A message prompts you to select the configuration file for your workstation. Click **OK** and then **Continue**.

Step 5. Select **SDLC** (in CM/2, **SDLC using SNA Phone Connections**), **APPC APIs**, and click **Configure**.

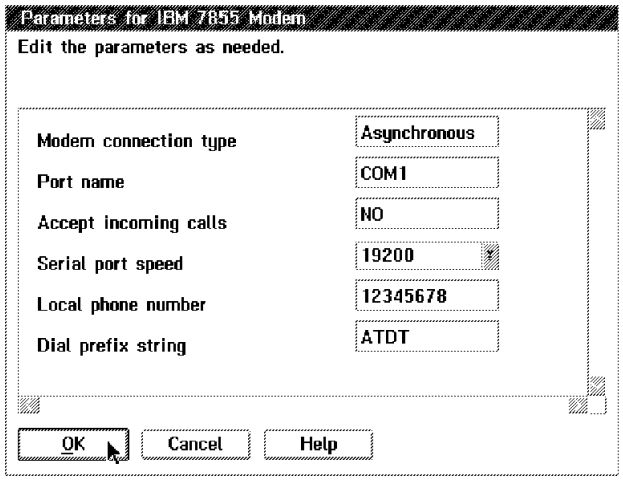
Step 6. Select **SNA Phone Connect - Port Connection Manager**, click **Configure** and **Continue**.



Step 7. Select **Asynchronous switched**, a 7855 modem type and click **Configure**.



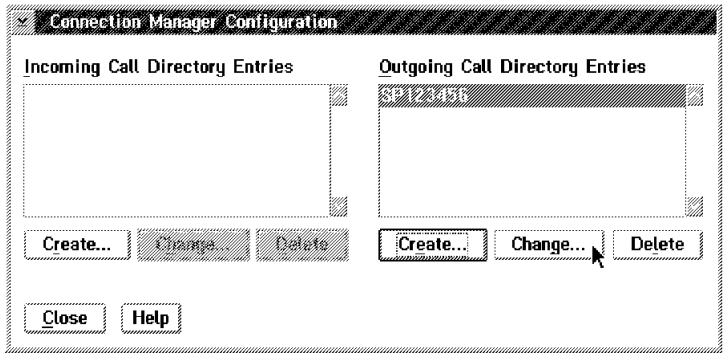
Step 8. Enter the port number in the **Port name** field, the number of your modem in the **Local phone number** field, click **OK** and **Close**.



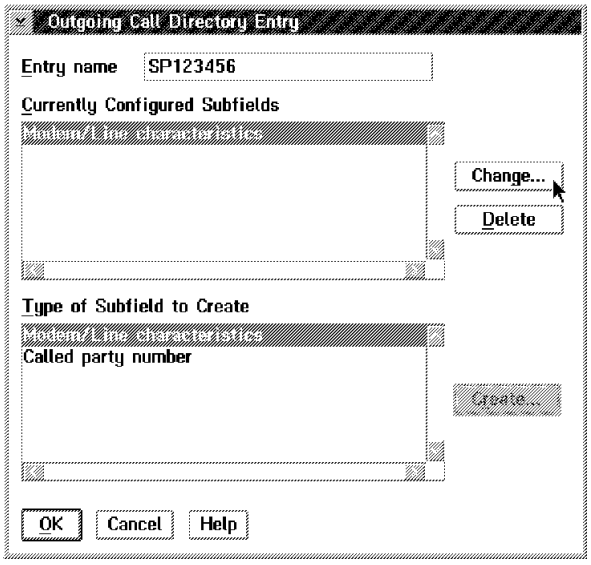
Step 9. Select **SNA Phone Connect - Connection Manager** and click **Configure**.

Step 10. Select **SP123456** and click **Change**.

Note: The directory entry file contains information on the target service processor that you are dialing. You can use **SP123456** and rename it for your own purposes. If you add a new workstation, you must create a new name.



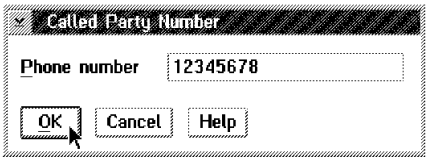
Step 11. Select **Modem/Line characteristics** and click **Change**.



Step 12. Select **Asynchronous**, **ISO3309** as the framing standard and click **OK**.

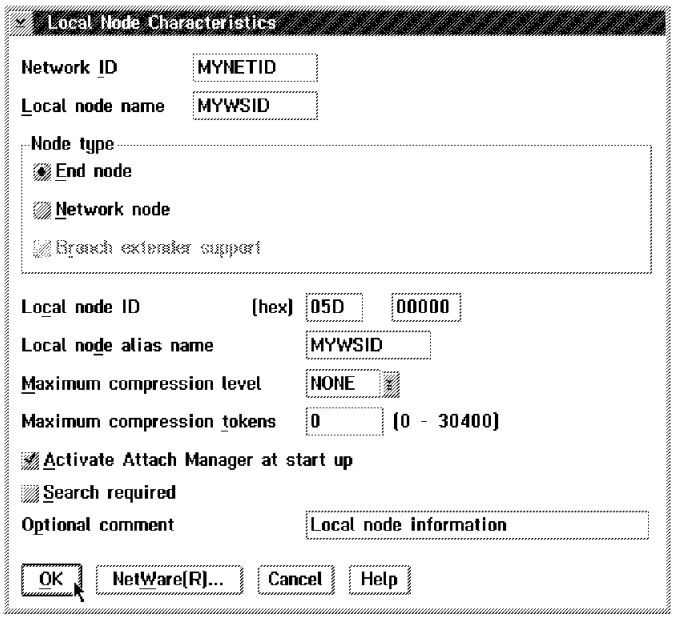
Step 13. Select the **Called party number** (in CM/2, this is **SP123456**) and click **Change**.

Step 14. Enter the phone-number of the service processor modem and click **OK**, then **OK** again on the subsequent screen.



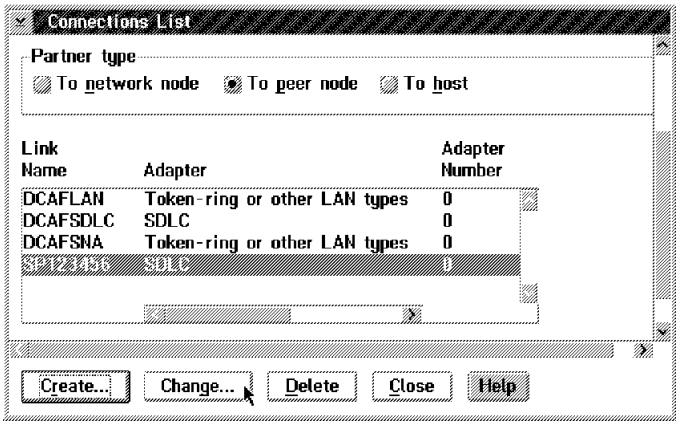
Step 15. Select **SNA local node characteristics** and click **Configure** and **Continue**.

Step 16. Modify the **Network ID** and **Local node name** fields for your remote workstation and click **OK**.

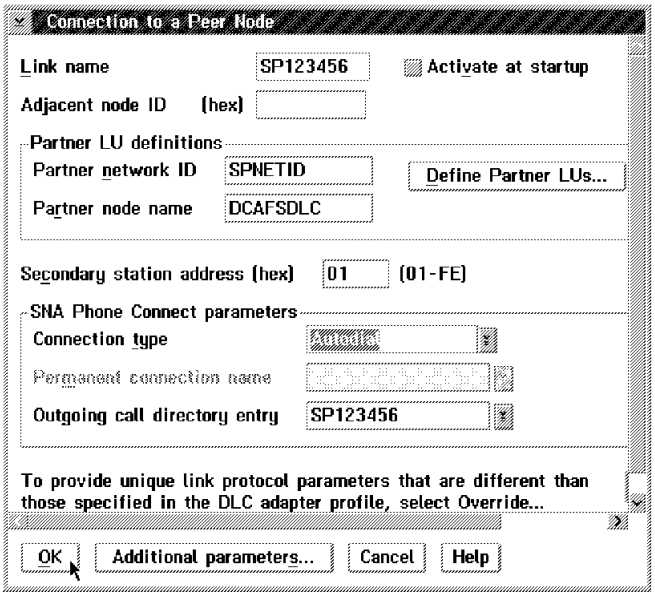


Step 17. Select **SNA connections**, click **Configure** and **Continue**.

Step 18. Select **To peer node**, the service processor link name and click **Change** and **Continue**.



Step 19. Check that the entries in the **Partner network ID** and **Partner node name** fields match the entries in the MOSS-E (see Table 4-1 on page 4-1). Select the service processor directory name in the **Outgoing call directory entry** field.



Step 20. Click **OK**.

Step 21. Close the subsequent screens until you exit CS/2.

Step 22. See “Configuring DCAF for a Modem” on page 4-21 for installing a target service processor.

7857 Asynchronous Modem to Service Processor 6275, 3172, and 7585

The following procedure uses configuration file I7857ASY.

Step 1. Double-click the **Communications Server** icon on your desktop.

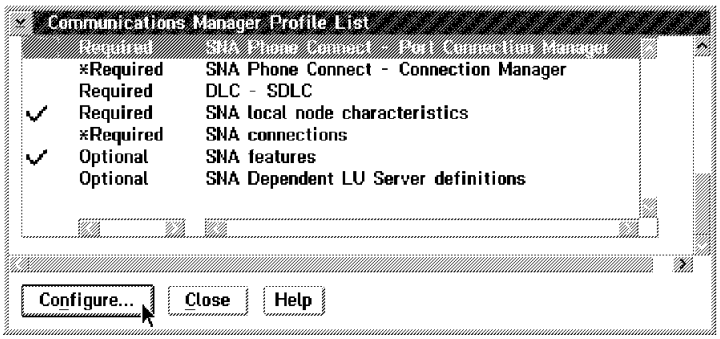
Step 2. Click **Setup**.

Step 3. Under **Directories**, double-click the CMLIB directory and double-click **I7857ASY** to display the configuration file.

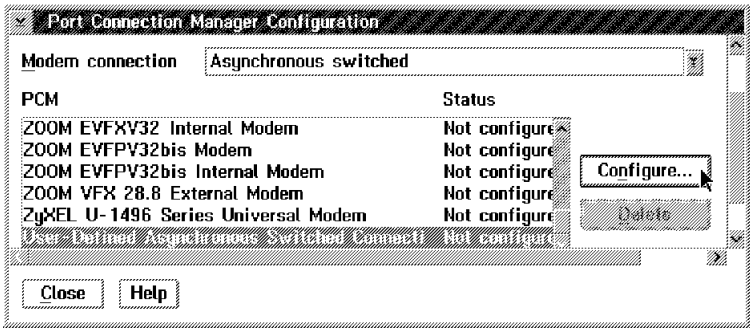
Step 4. Click **OK**. A message prompts you to select the configuration file for your workstation. Click **OK** and then **Continue**.

Step 5. Select **SDLC** (in CM/2, **SDLC using SNA Phone Connections**), **APPC APIs**, and click **Configure**.

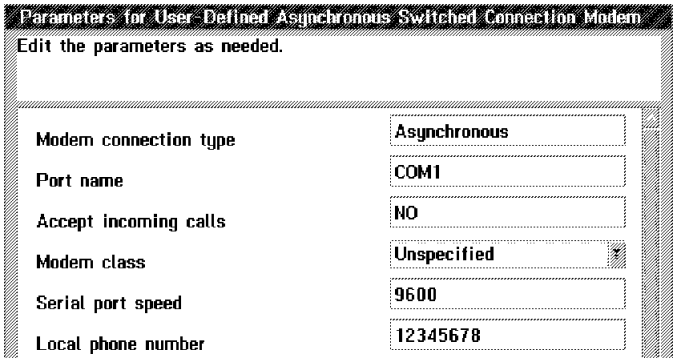
Step 6. Select **SNA Phone Connect - Port Connection Manager**, click **Configure** and **Continue**.



Step 7. Select **Asynchronous switched**, **User defined** and click **Configure**.



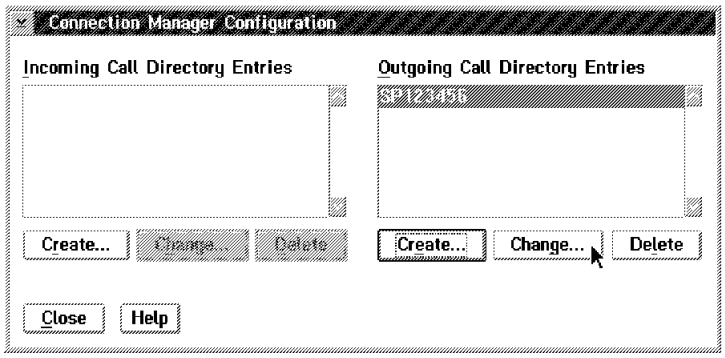
Step 8. Enter the port number in the **Port name** field, the number of your modem in the **Local phone number** field, click **OK** and **Close**.



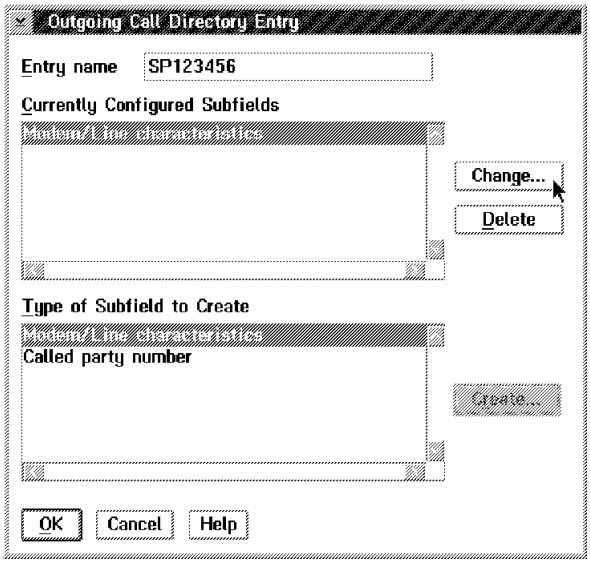
Step 9. Select **SNA Phone Connect - Connection Manager** and click **Configure**.

Step 10. Select **SP123456** and click **Change**.

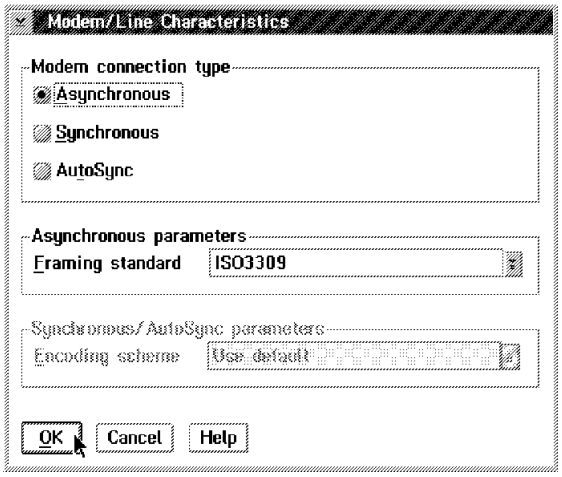
Note: The directory entry file contains information on the target service processor that you are dialing. You can use **SP123456** and rename it for your own purposes. If you add a new workstation, you must create a new name.



Step 11. Select **Modem/Line characteristics** and click **Change**.

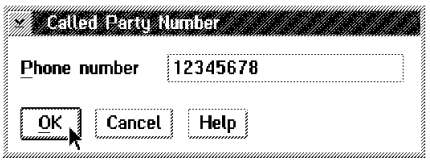


Step 12. Select **Asynchronous**, **ISO3309** as the framing standard and click **OK**.



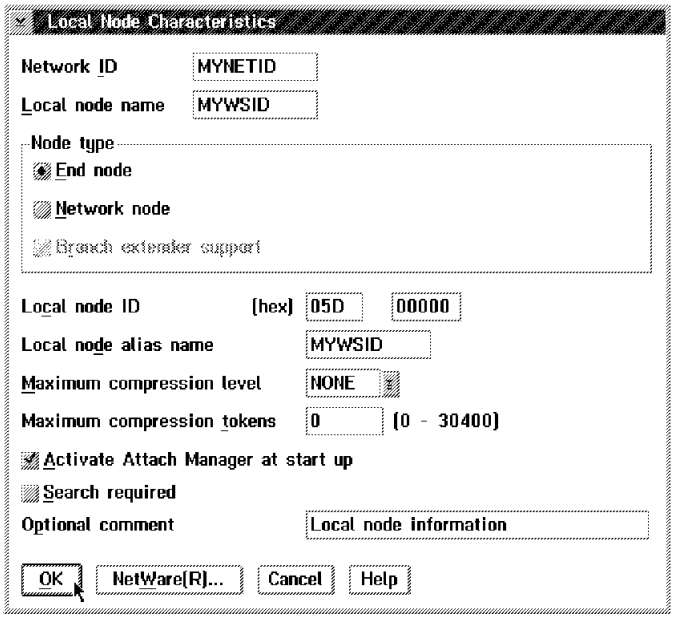
Step 13. Select the **Called party number** (in CM/2, this is **SP123456**) and click **Change**.

Step 14. Enter the phone-number of the service processor modem and click **OK**, then **OK** again on the subsequent screen.



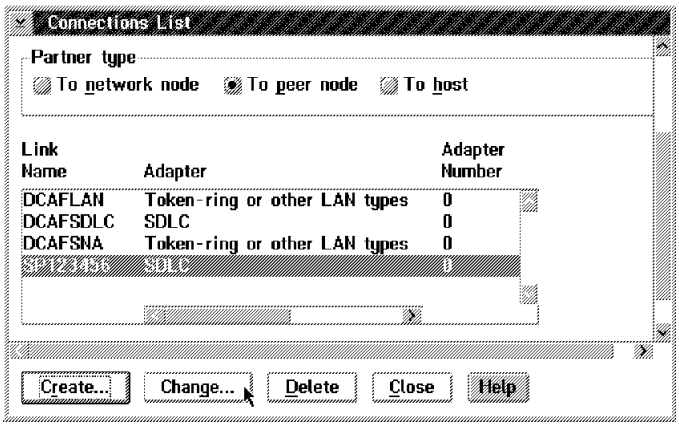
Step 15. Select **SNA local node characteristics**, click **Configure** and **Continue**.

Step 16. Modify the **Network ID** and **Local node name** fields for your remote workstation and click **OK**.

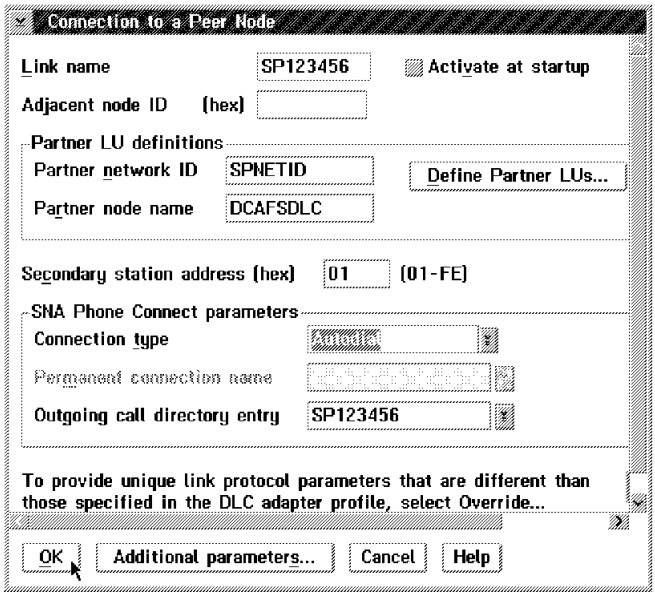


Step 17. Select **SNA connections**, click **Configure** and **Continue**.

Step 18. Select **To peer node**, the service processor link name and click **Change** and **Continue**.



Step 19. Check that the entries in the **Partner network ID** and **Partner node name** fields match the entries in the MOSS-E (refer to Table 4-1 on page 4-1). Select the service processor directory name in the **Outgoing call directory entry** field.



Step 20. Click **OK**.

Step 21. Close the subsequent screens until you exit CS/2.

Step 22. See “Configuring DCAF for a Modem” on page 4-21 for installing a target service processor.

Hayes Asynchronous Modem to Service Processor 6275, 3172, and 7585

Step 1. Double-click the **Communications Server** icon on your desktop.

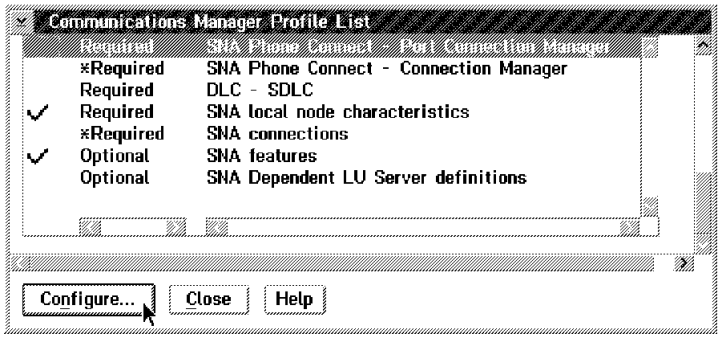
Step 2. Click **Setup**.

Step 3. Under **Directories**, double-click the CMLIB directory and double-click **HAYESASY** to display the configuration file.

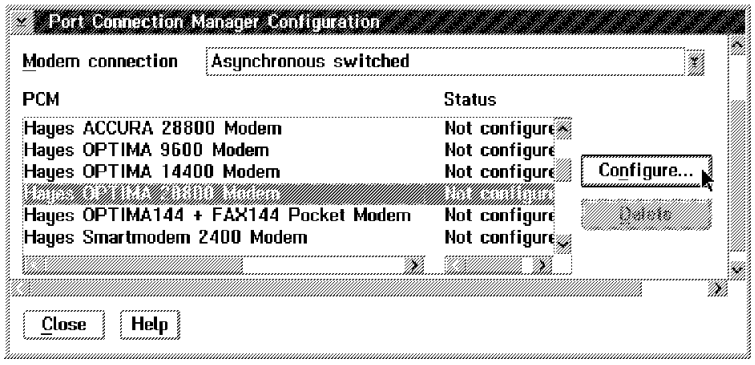
Step 4. Click **OK**. A message prompts you to select the configuration file for your workstation. Click **OK** and then **Continue**.

Step 5. Select **SDLC** (in CM/2, **SDLC using SNA Phone Connections**), **APPC APIs**, and click **Configure**.

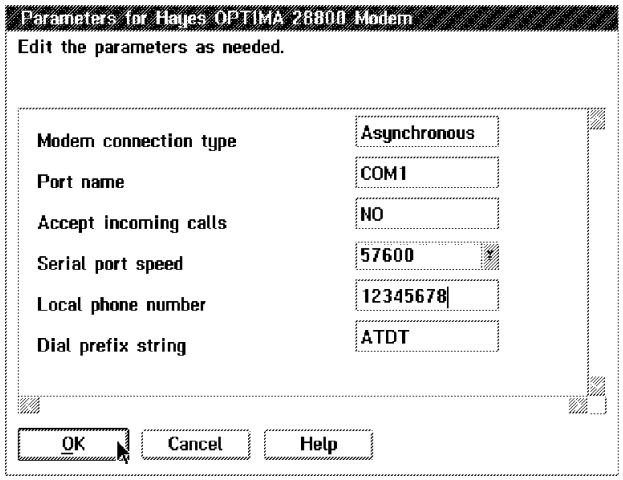
Step 6. Select **SNA Phone Connect - Port Connection Manager**, click **Configure** and **Continue**.



Step 7. Select **Asynchronous switched**, a Hayes modem type and click **Configure**.



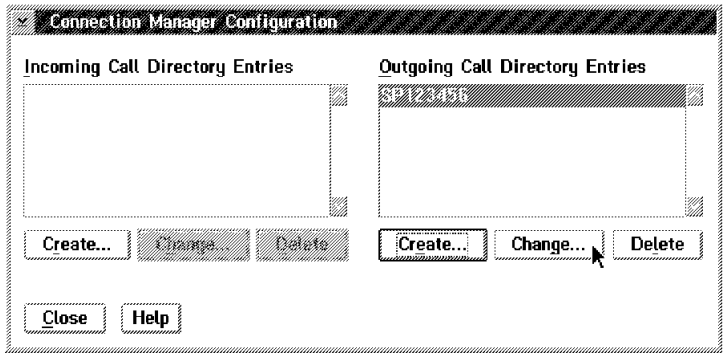
Step 8. Enter the port number in the **Port name** field, the number of your modem in the **Local phone number** field, click **OK** and **Close**.



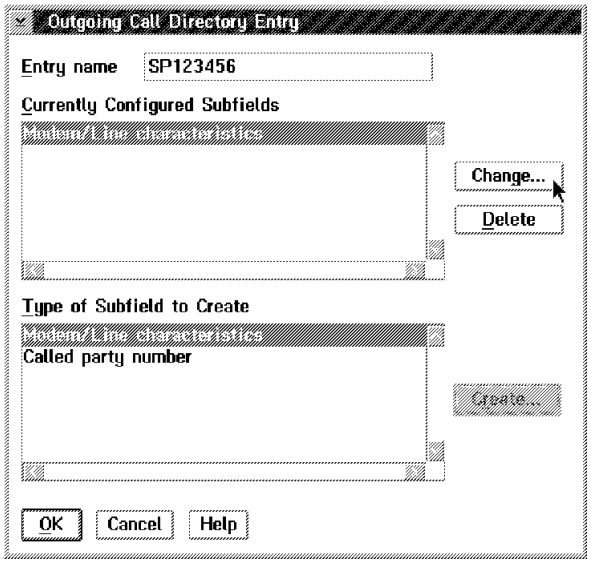
Step 9. Select **SNA Phone Connect - Connection Manager** and click **Configure**.

Step 10. Select **SP123456** and click **Change**.

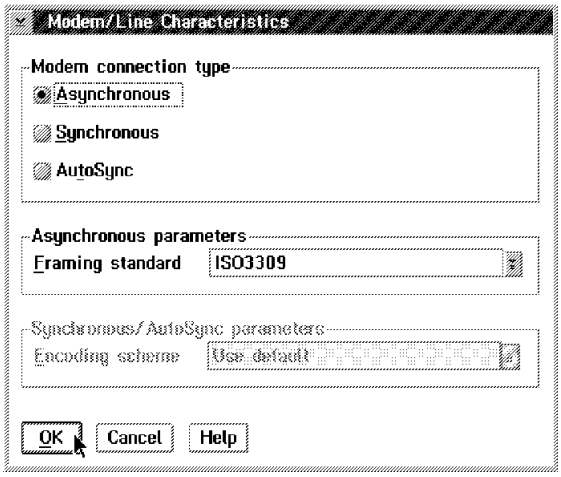
Note: The directory entry file contains information on the target service processor that you are dialing. You can use **SP123456** and rename it for your own purposes. If you add a new workstation, you must create a new name.



Step 11. Select **Modem/Line characteristics** and click **Change**.

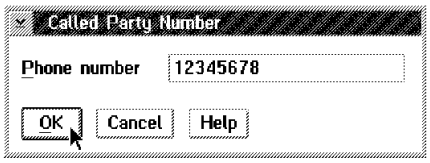


Step 12. Select **Asynchronous**, **ISO3309** as the framing standard and click **OK**.



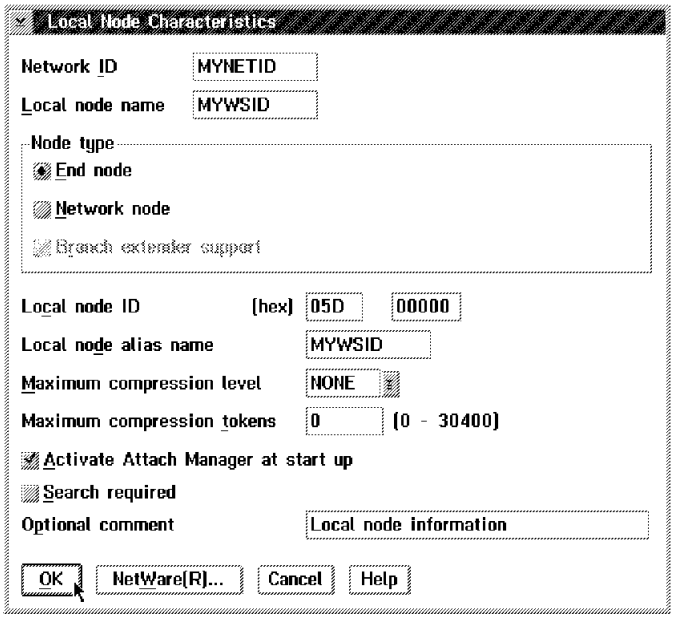
Step 13. Select **Called party number** (in CM2, this is **SP123456**) and click **Change**.

Step 14. Enter the phone-number of the service processor modem and click **OK**, then **OK** again on the subsequent screen.



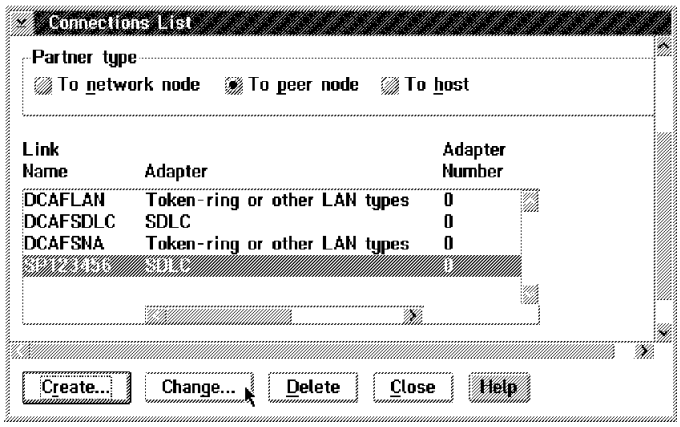
Step 15. Select **SNA local node characteristics**, click **Configure** and **Continue**.

Step 16. Modify the **Network ID** and **Local node name** fields for your remote workstation and click **OK**.

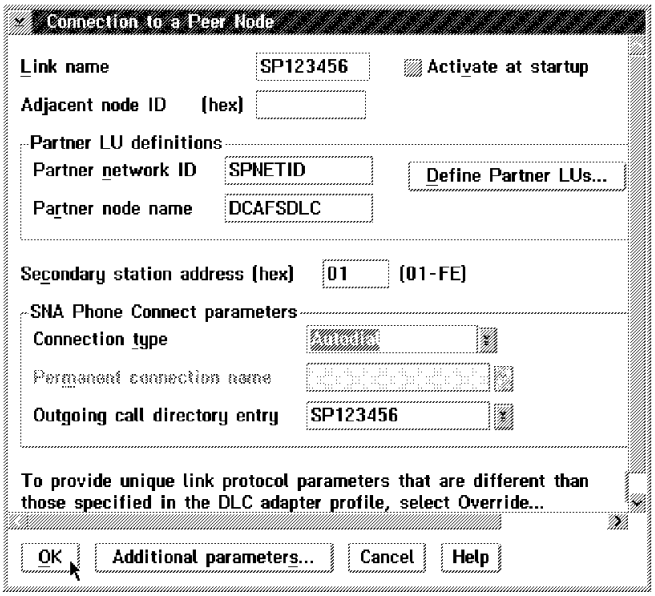


Step 17. Select **SNA connections**, click **Configure** and **Continue**.

Step 18. Select **To peer node**, the service processor link name and click **Change** and **Continue**.



Step 19. Check that the entries in the **Partner network ID** and **Partner node name** fields match the entries in the MOSS-E (refer to Table 4-1 on page 4-1). Select the service processor directory name in the **Outgoing call directory entry** field and click **OK**.



Step 20. Close the subsequent screens until you exit CS/2.

Step 21. See “Configuring DCAF for a Modem” on page 4-21 for installing a target service processor.

Configuring DCAF for a Modem

Step 1. From Desktop Manager, double-click the **Distributed Console Access Facility** icon.

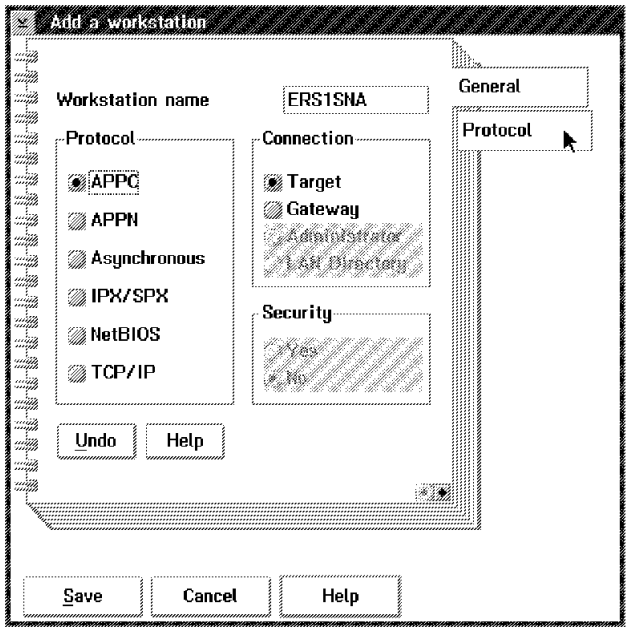
Step 2. Double-click the 

icon.

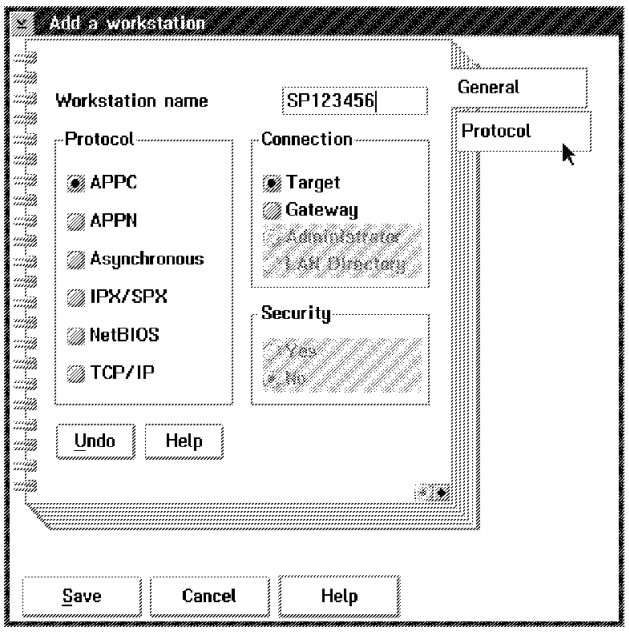
Step 3. Select **Session** then **Open workstation directory**.

Step 4. Click **OK** for a first installation. Otherwise continue with next step.

Step 5. In the DCAF Directory window, select **Workstation** then **Add**.

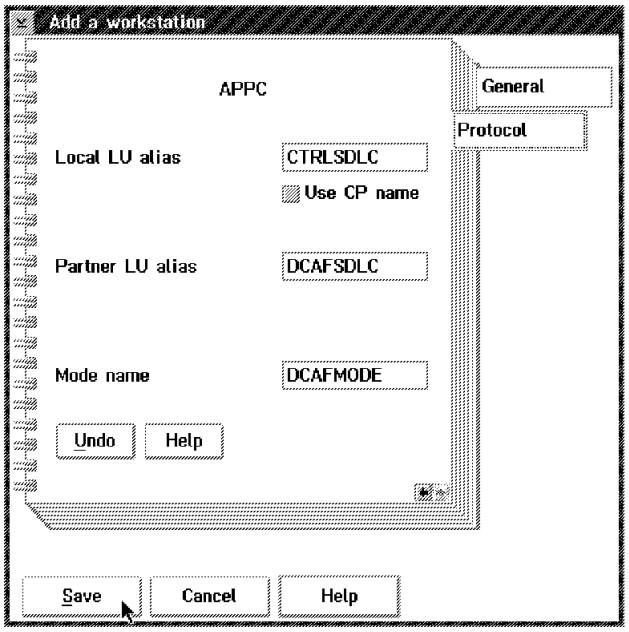


Step 6. Enter a name in the **Workstation name** field and click **Protocol**.



Step 7. Fill in the **Local LU alias** field, the **Partner LU alias** field (refer to Table 4-1 on page 4-1).

Enter DCAFMODE in the **Mode name** field.



Step 8. Click **Save** and **Cancel**. The new workstation icon appears in the DCAF Directory window.

Step 9. From Desktop Manager, shutdown and restart the workstation.

Step 10. The installation is complete. Go to Chapter 3, “Using DCAF for Remote Access to the Service Processor” for using this new DCAF session.

Chapter 5. APPN-Attached Remote Workstation

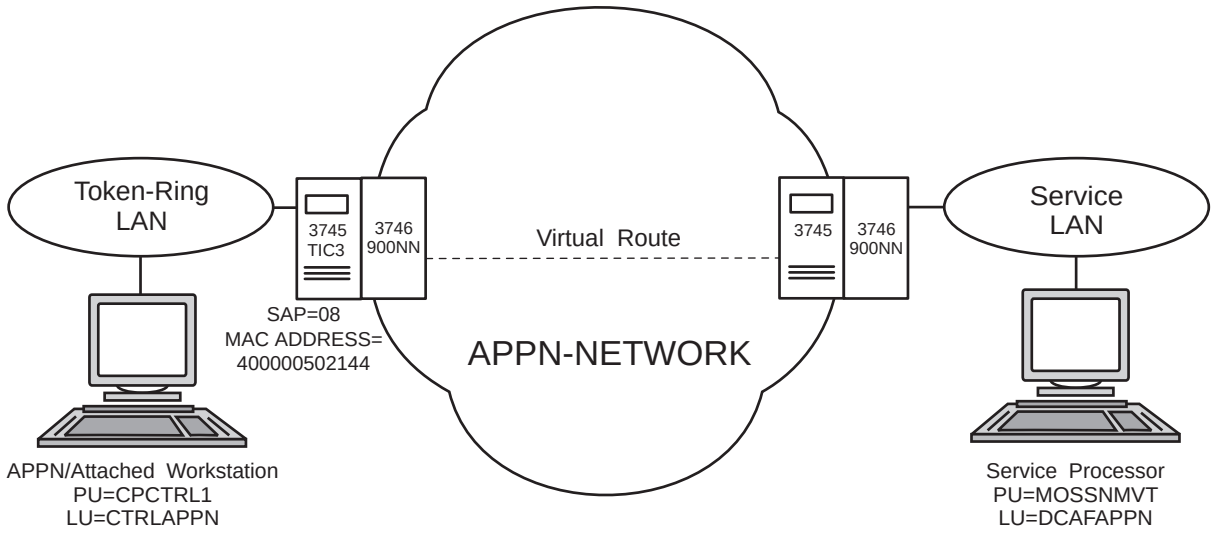


Figure 5-1. APPN Remote Workstation

This chapter shows you how to configure a DCAF session for controlling the service processor (see Figure 5-1 above).

If you have more than one target service processor

You must respect the parameter value matching rules in Appendix C, "Configuration for a Two-Target Remote Workstation."

Configuring a Target Service Processor

Important

You can use the worksheets in the *Planning Guide*, GA33-0457 to record the necessary parameter values described in this section.

This section describes the following:

- The MOSS-E configuration for a DCAF link to the communication controller
- The MOSS-E parameters required for use in the controlling workstation.

Parameter Values that Must Be the Same

Table 5-1 gives the sets of MOSS-E parameters that must have the same value in both the remote workstation and the target service processor.

Table 5-1. Identical Target and Controlling Parameters (APPN)

In the Service Processor	In the Remote Workstation
APPN LU name (Figure 5-2 on page 5-3)	**LU name** (Step 9 on page 5-6)
APPN Destination address (Figure 5-2 on page 5-3)	**LAN Destination address** (Step 9 on page 5-6)
RSAP (Figure 5-2 on page 5-3)	**Remote SAP** (Step 9 on page 5-6)

The configuration procedure in this chapter explains how to find these parameters in the remote workstation.

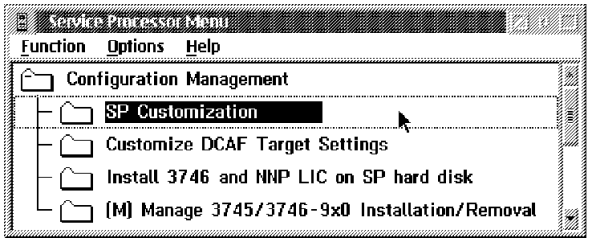
Configuring the Service Processor in MOSS-E

The following procedure explains how to find, record, and configure the service processor parameters:

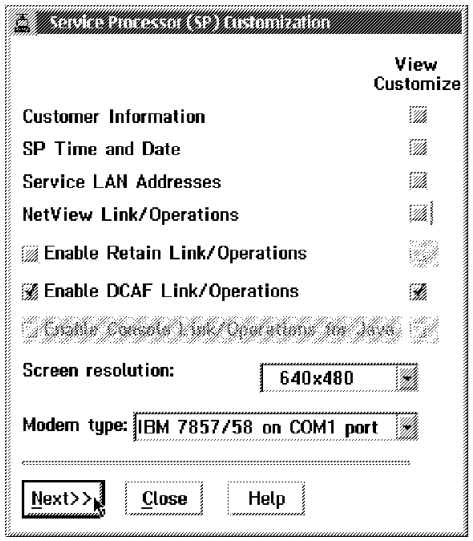
Step 1. In MOSS-E, double-click the **Service Processor** object.

Step 2. Click **Configuration Management**.

Step 3. Double click **SP Customization**.



Step 4. Select **Enable DCAF Link/Operations**, **View Customize**, and click **Next**.



Step 5. Record the value in the **APPN LU name** and **APPN Destination address** fields (refer to Table 5-1 on page 5-2). You will need them in Step 9 on page 5-6.

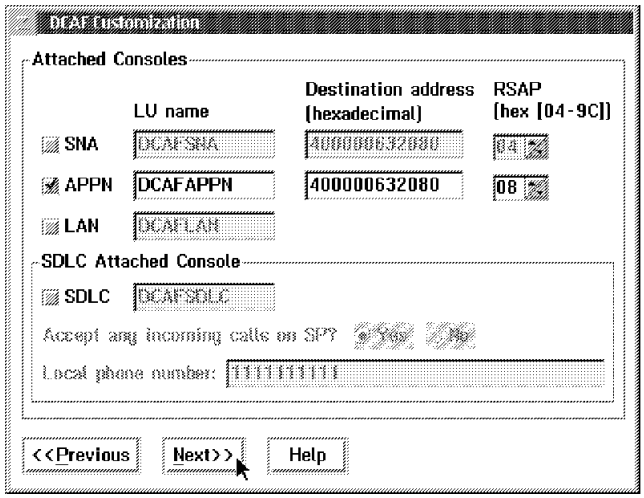


Figure 5-2. DCAF Customization

Step 6. Click **Next**, click **Close** and **Yes** to save the configuration.

Step 7. From Desktop Manager, shutdown and restart the service processor.

Step 8. Go to “Configuring an APPN-Attached Remote Workstation.”

Configuring an APPN-Attached Remote Workstation

The following procedure shows you how to establish a link between a controlling workstation and the target service processor.

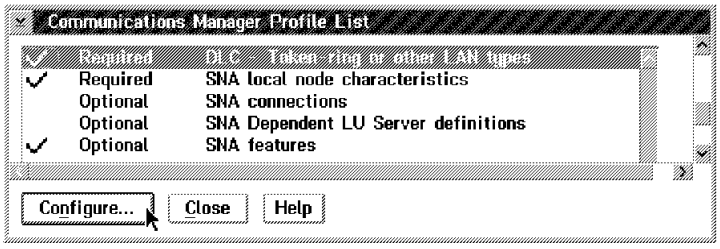
Configuring CS/2

Important

The procedure below is the same in CM/2 unless otherwise indicated.

Step 1. Perform steps 1 to 5 on page 8-4

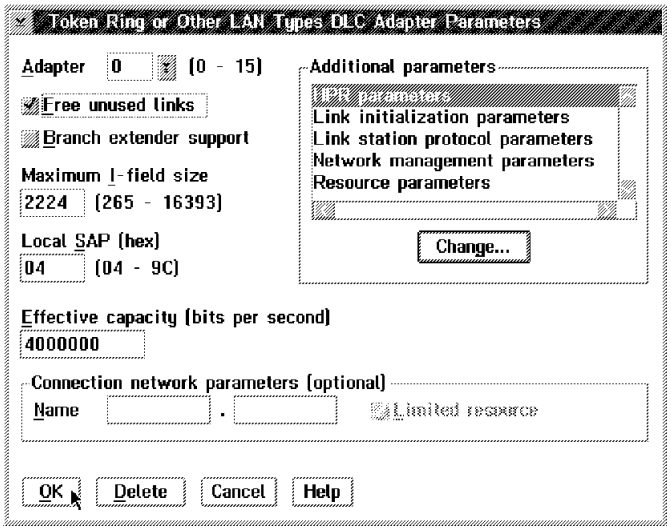
Step 2. Select **DLC - Token-ring or other LAN types** and click **Configure**.



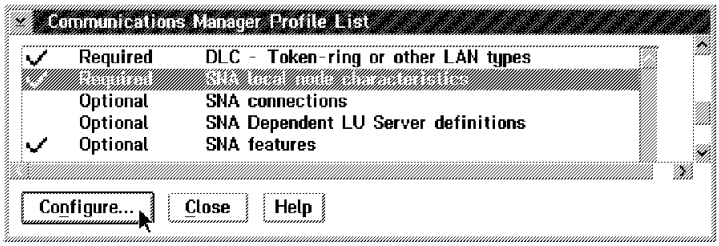
Step 3. Select **Free unused links** (in CM/2, select **Free unused links** and click **OK**). From the **Additional Parameters** list, highlight and check the following using the **Change** button.

- Select **HPR parameters** and de-select **HPR support**.
- Check that the defaults apply to **Link station protocol parameters**, **Network management parameters**, and **Resource parameters**.

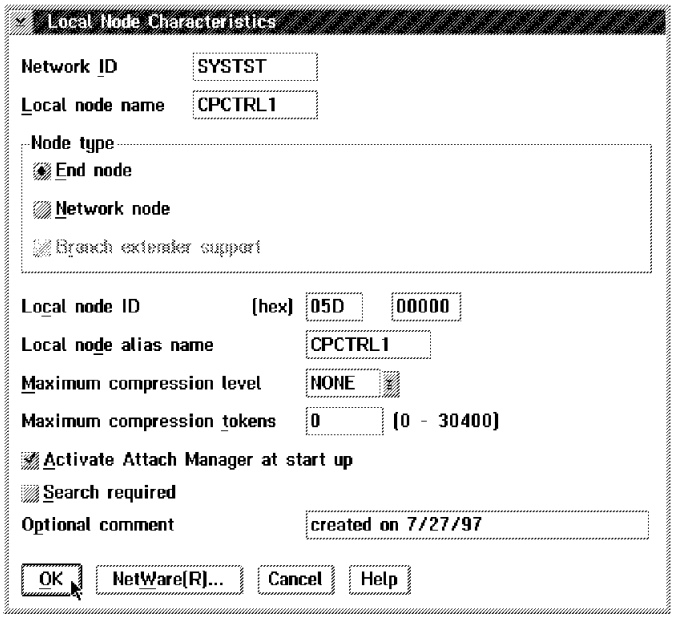
Then click **OK**.



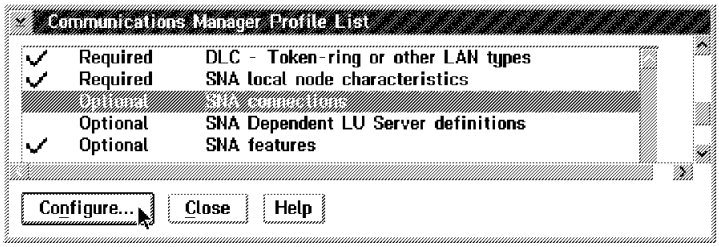
Step 4. Select **SNA local node characteristics** and click **Configure**.



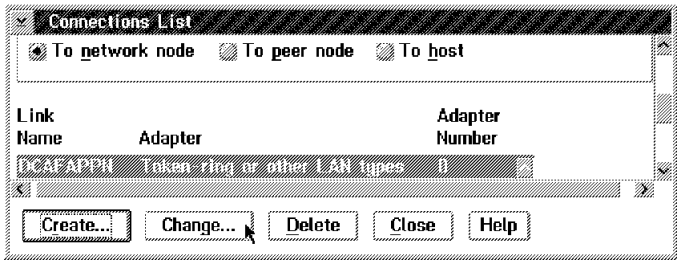
Step 5. Enter `SPNETID` in the **Network ID** field, and the name that you are using for the local node in the **Local node name** field. Select **End node** and click **OK**.



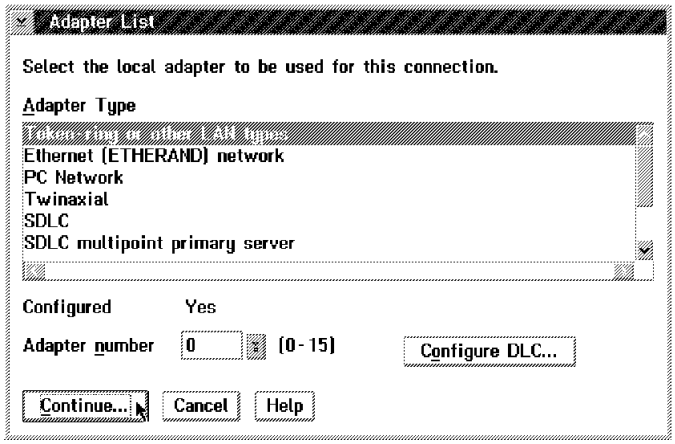
Step 6. Select **SNA connections** and click **Configure**.



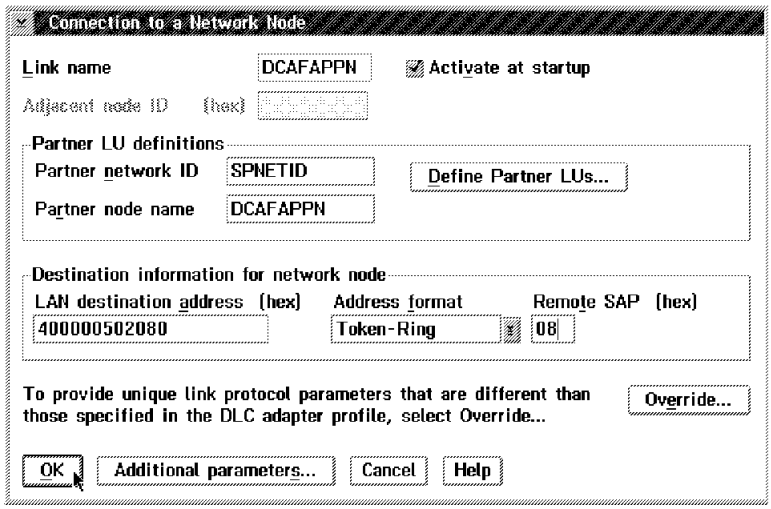
Step 7. Select **To network node**, **DCAFAPPN** in the **Link name** list, and click **Change**.



Step 8. Select **Token-ring or other LAN types** and click **Continue**.

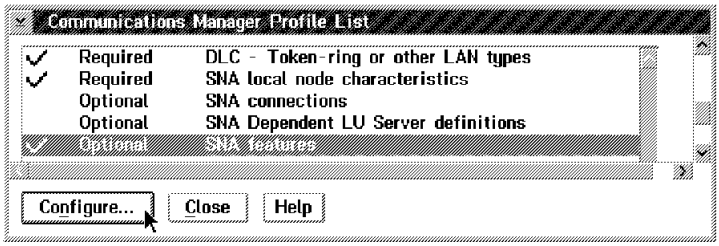


Step 9. Refer to Table 5-1 on page 5-2 and fill in the **Link name**, **LAN destination address**, and **Remote SAP** fields. Then click **OK**.

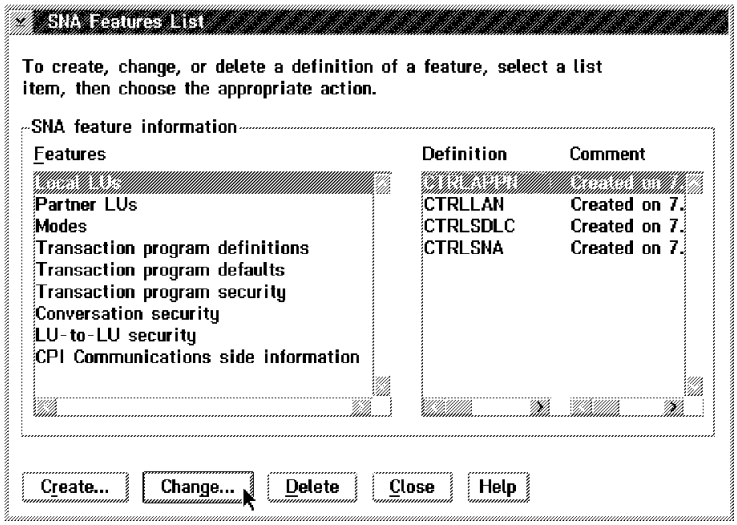


Step 10. Click **Close** on the intermediate window.

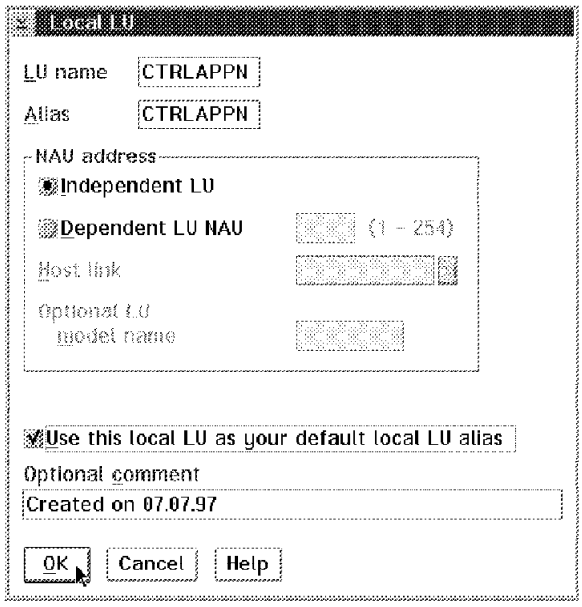
Step 11. Select **SNA features** and click **Configure**.



Step 12. Select **Local LUs** in the **Features** list, **CTRLAPPN** in the **Definition** list, and click **Change**.



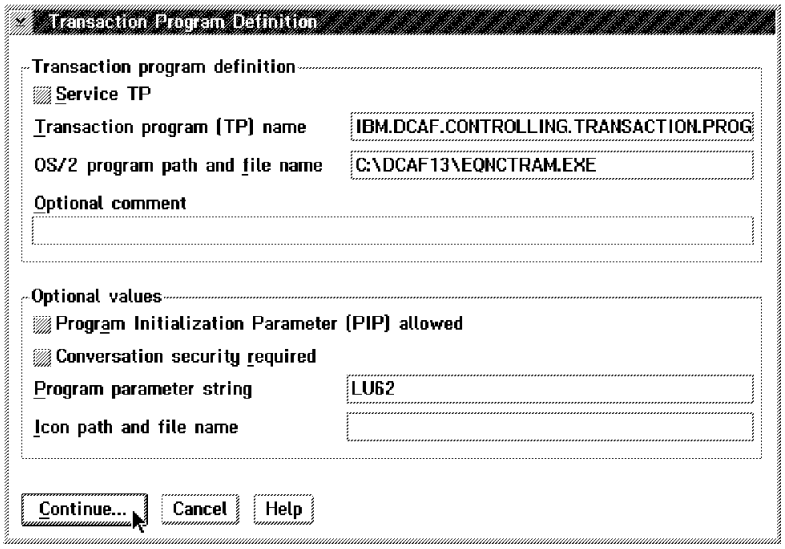
Step 13. Modify the **LU name** and **Alias** fields and select **use this local LU as default local LU alias**. Then select **Independent LU** and click **OK**.



Step 14. Select **Modes** and verify that **DCAFMODE** is in the **Definition** list. If you do not find **DCAFMODE**, add it to the list with the **Create** button.

Step 15. Select **Transaction program definitions** from the **SNA Features List** and click **Create**.

Step 16. Enter the command line in the **Transaction program (TP) name** field, the path of the DCAF directory in the **OS/2 program path and file name** field, and click **Continue**.



Step 17. Click **Close** on the subsequent screens until you exit CS/2.

Step 18. Continue with “Configuring DCAF for APPN.”

Configuring DCAF for APPN

Step 1. From **Desktop Manager**, double-click the **Distributed Console Access Facility** icon.

Step 2. Double-click the 

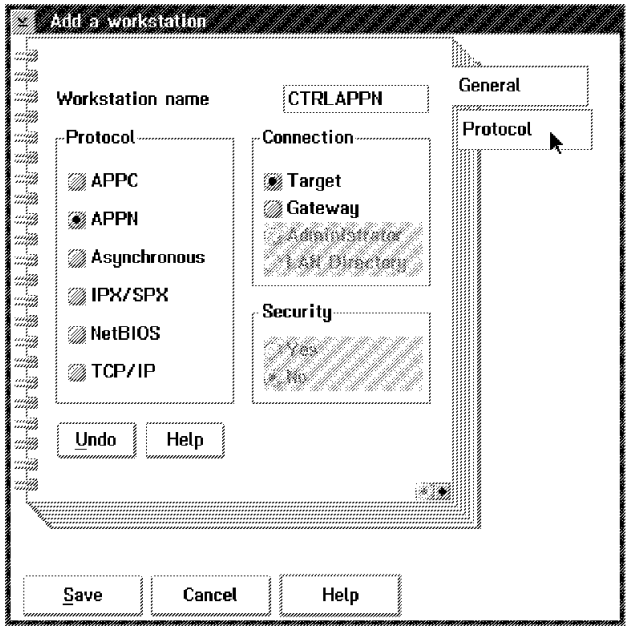
icon.

Step 3. Click **Session**, then **Open workstation directory**.

Step 4. Click **OK** for a first installation. Otherwise continue with next step.

Step 5. From the DCAF Directory window, click **Workstation**, then on **Add**.

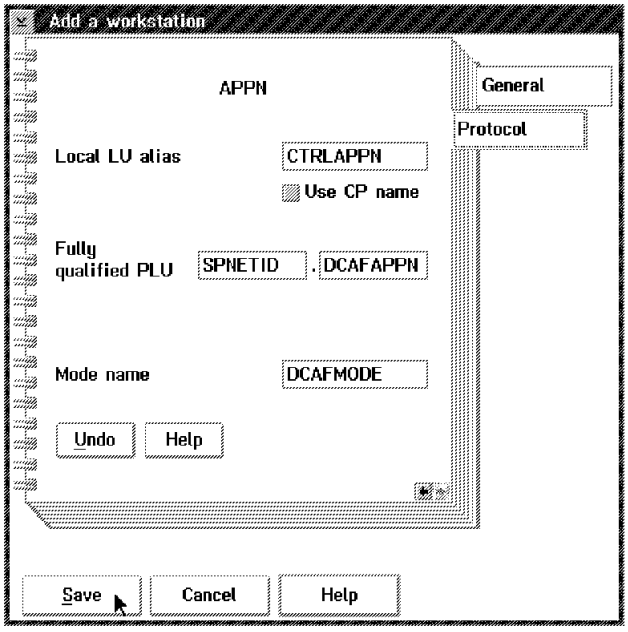
Step 6. Fill in the **Workstation name** field, select **APPN**, **Target**, and click **Protocol**.



Step 7. Fill in the **Local LU alias** (see Step 13 on page 5-8), and the **Fully qualified PLU**:

a. First field matches the **Local Node Network ID** in Step 5 on page 5-5

b. Second field matches the **APPN LU name** in Figure 5-2 on page 5-3.



Step 8. Enter `DCAFMODE` in the **Mode name** fields.

Step 9. Click **Save**, **OK** (on the subsequent window), and then **Cancel**.

Step 10. In **Desktop Manager**, shutdown and restart the workstation.

Step 11. Go to Chapter 3, “Using DCAF for Remote Access to the Service Processor.”

Chapter 6. SNA-Attached Remote Workstation

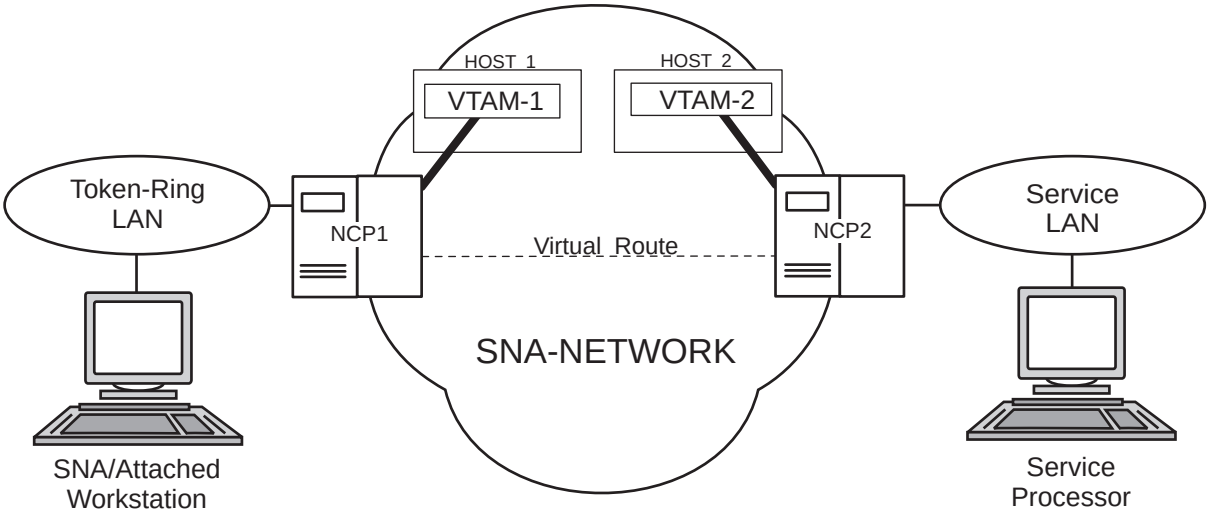


Figure 6-1. SNA-Attached Remote Workstation

This chapter shows you how to configure a DCAF session for controlling the service processor (see Figure 6-1).

If you have more than one target service processor

You must respect the parameter value matching rules given in Appendix C, “Configuration for a Two-Target Remote Workstation.”

Configuring a Target Service Processor

Important

You can use the worksheets in the *Planning Guide*, GA33-0457 to record the necessary parameter values described in this section.

This section describes the following:

- The MOSS-E configuration for a DCAF link to the communication controller
- The MOSS-E parameters required for use in the controlling workstation.

Parameter Values that Must Be the Same

Table 6-1 gives the sets of MOSS-E parameters that must have the same value in both the remote workstation and the target service processor.

Table 6-1. Identical Target and Controlling Parameters (SNA)

In the Service Processor	In the Remote Workstation
Local Node Network ID (Figure 6-2 on page 6-3)	**Partner network ID** (Step 9 on page 6-7) and **Network ID** (Step 10 on page 6-8)
SDLC LU name (Figure 6-3 on page 6-4)	**Partner node name** (Step 9 on page 6-7) and **LU name** (Step 10 on page 6-8) and **Partner LU alias** (Step 7 on page 6-11)
TIC2 or TIC3 LAA (Figure 6-2 on page 6-3)	**LAN Destination address** (Step 9 on page 6-7)
TIC3 RSAP (Figure 6-2 on page 6-3)	**Remote SAP** (Step 9 on page 6-7)

The configuration procedure in this chapter explains how to find these parameters in the remote workstation.

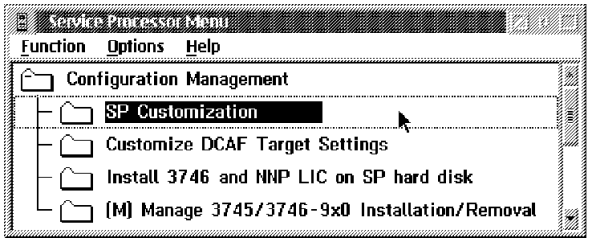
Configuring the Service Processor in MOSS-E

The following procedure explains how to find, record, and configure the service processor parameters:

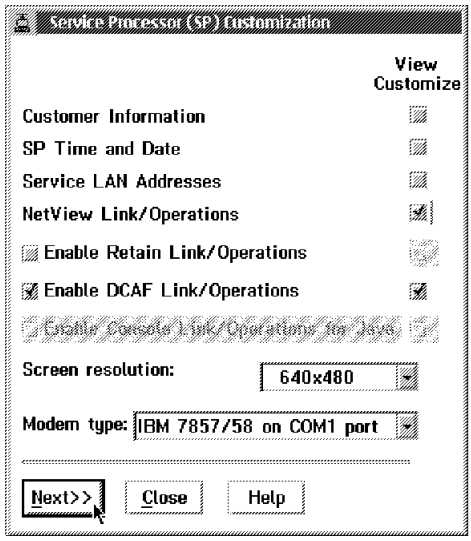
Step 1. In MOSS-E, double-click the **Service Processor** object.

Step 2. Click **Configuration Management**.

Step 3. Double click **SP Customization**.



Step 4. Select **Enable DCAF Link/Operations**, the adjacent **View Customize**, and **NetView Link/Operations**. Then click **Next**.



Step 5. Record the values in the **Local Node Network ID**, **TIC2 or TIC3 LAA**, and **TIC3 RSAP** fields (see Figure 6-2 and refer to Table 6-1 on page 6-2). Then click **Next**.

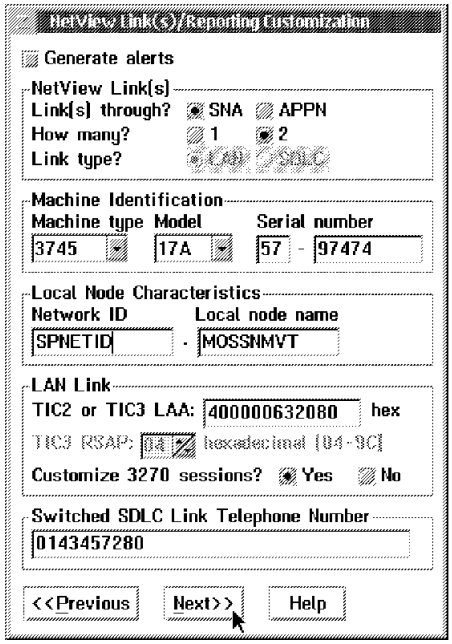


Figure 6-2. NetView Link/Reporting Customization

Step 6. Record the value in the **SNA LU name** and **SNA Destination address** fields (refer to Table 6-1 on page 6-2). You will need them for Step 9 on page 6-7.

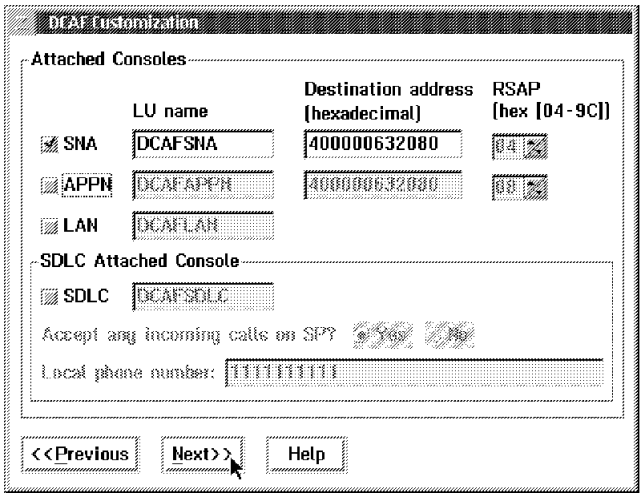


Figure 6-3. DCAF Customization

Step 7. Click **Next**, click **Close** and **Yes** to save the configuration.

Step 8. Shutdown and restart the service processor.

Step 9. Go to “Configuring a SNA-Attached Remote Workstation.”

Configuring a SNA-Attached Remote Workstation

The following procedure shows you how to establish a link between the controlling workstation and the target service processor.

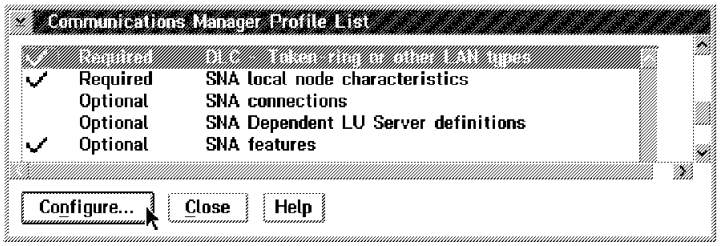
Configuring CS/2

Important

The procedure below is the same in CM/2 unless otherwise indicated.

Step 1. Perform Steps 1 to 5 on page 8-4.

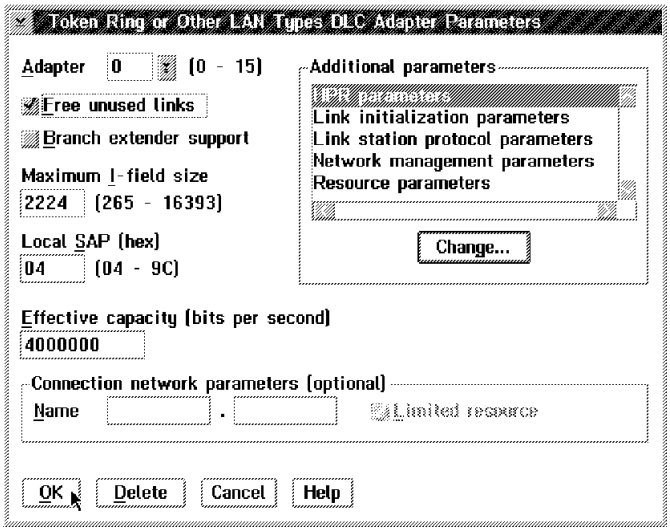
Step 2. Select **DLC - Token-ring or other LAN types** and click **Configure**.



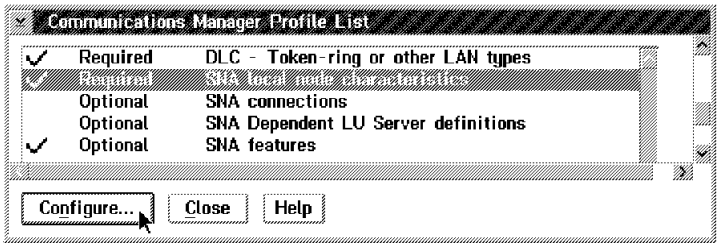
Step 3. Select **Free unused links** (in CM/2, select **Free unused links** and click **OK**). From the **Additional Parameters** list, highlight and check the following, using the **Change** button.

- Select **HPR parameters** and de-select **HPR support**.
- Check that the defaults apply to **Link station protocol parameters**, **Network management parameters**, and **Resource parameters**.

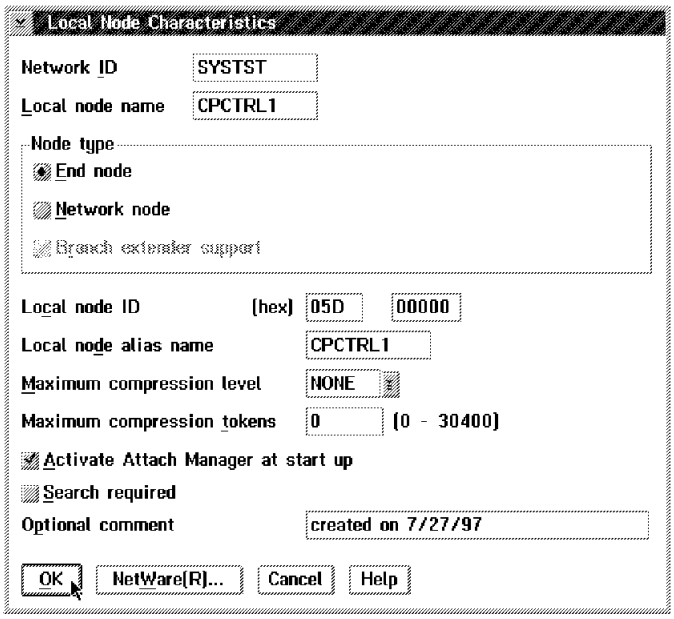
Then click **OK**.



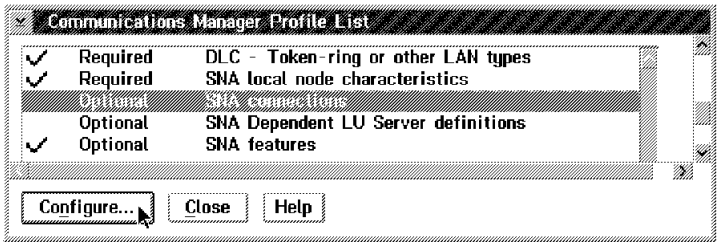
Step 4. Select **SNA local node characteristics** and click **Configure**.



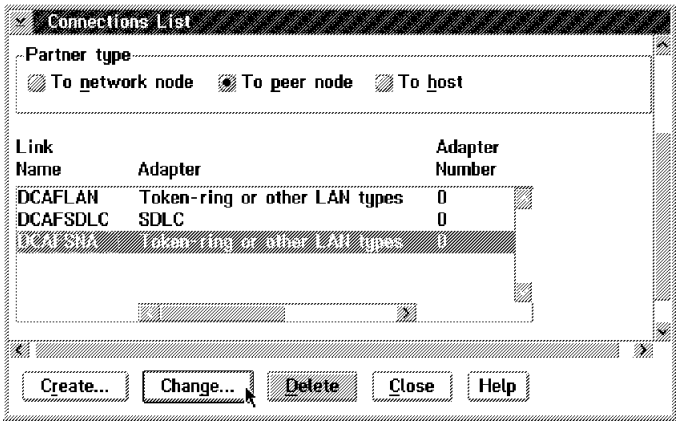
Step 5. Fill in the **Network ID** and **Local node name** fields, select **End node** and click **OK**.



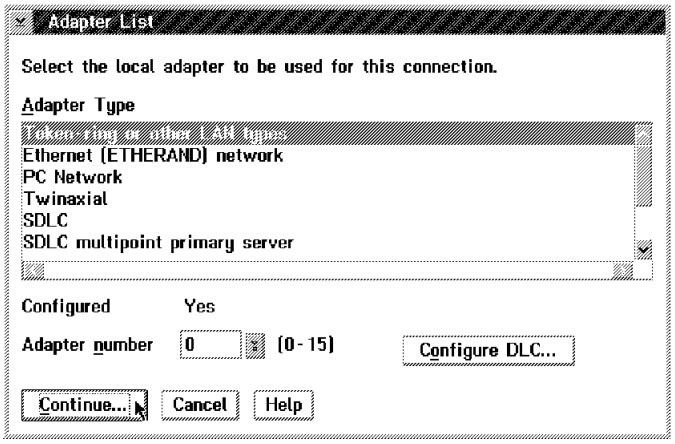
Step 6. Select **SNA connections** and click **Configure**.



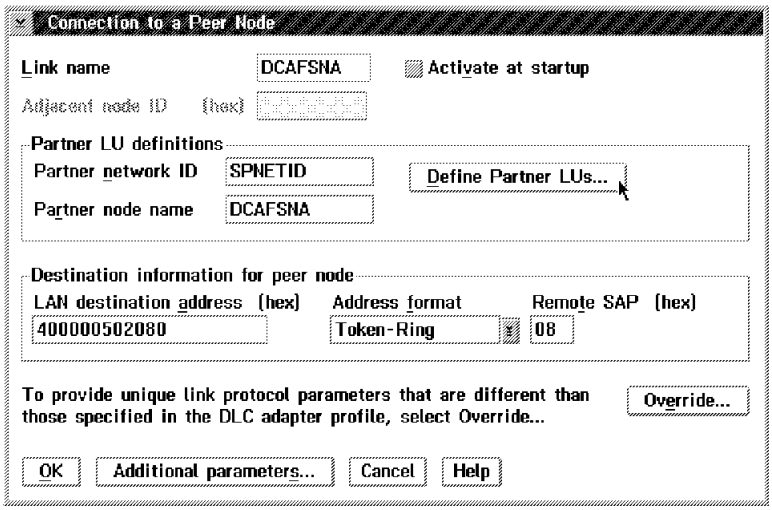
Step 7. Click **To peer node**, select **DCAFSNA** from the list and click **Change**.



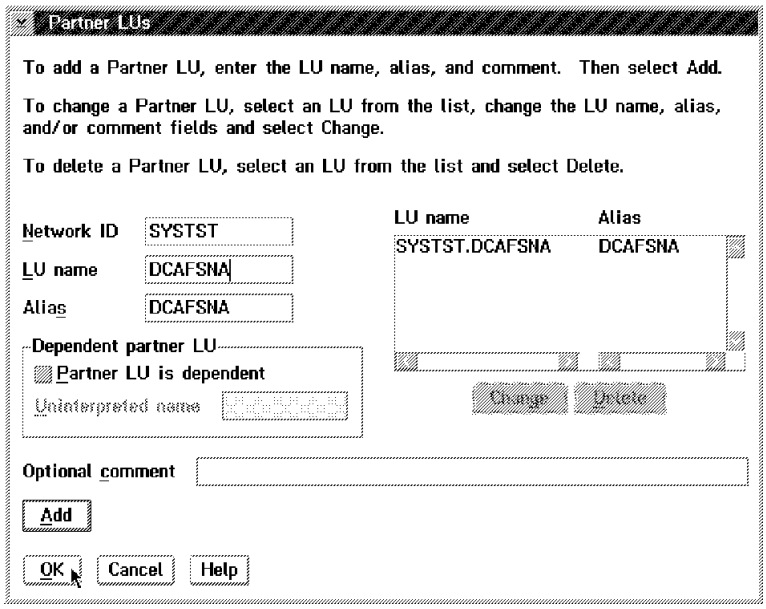
Step 8. Select **Token-ring or other LAN types** and click **Continue**.



Step 9. Refer to Table 6-1 on page 6-2 and fill in the **Partner network ID** (the network that contains the target processor), the **Partner node name**, **LAN destination address** (the MAC address of the target service processor), and **Remote SAP** fields. Then click **Define Partner LUs**.

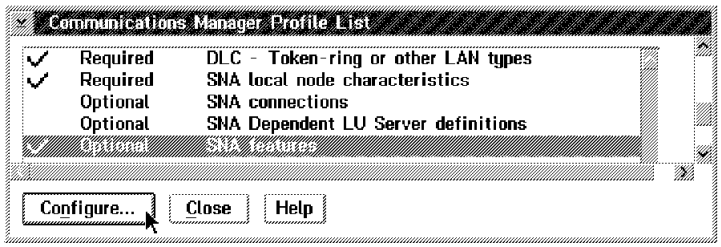


Step 10. Refer to Table 6-1 on page 6-2 and fill in the **Network ID**, **LU name** (service processor LU name), and **Alias** fields. Then click **Add** and **OK**.

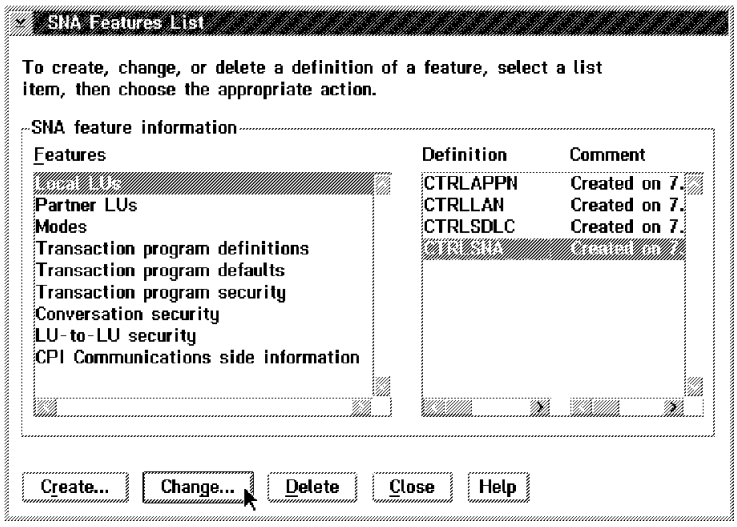


Step 11. Click **OK** on the intermediate window and **Close**.

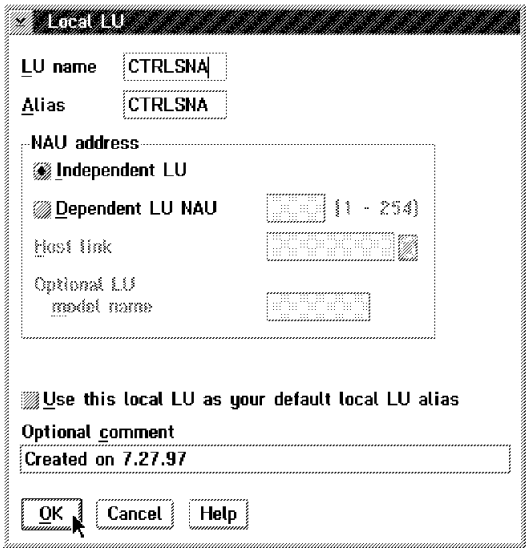
Step 12. Select **SNA features** and click **Configure**.



Step 13. Select **Local LUs**, **CTRLSNA** and click **Change**.



Step 14. Fill in the **LU name** and **Alias** fields, select **use this local LU as your default local LU alias** and click **OK**.



Step 15. Click **Close** on each subsequent screen until you exit CS/2.

Step 16. Continue with “Configuring DCAF for SNA” on page 6-10.

Configuring DCAF for SNA

Step 1. From Desktop Manager, double-click the **Distributed Console Access Facility** icon.

Step 2. Double-click the 

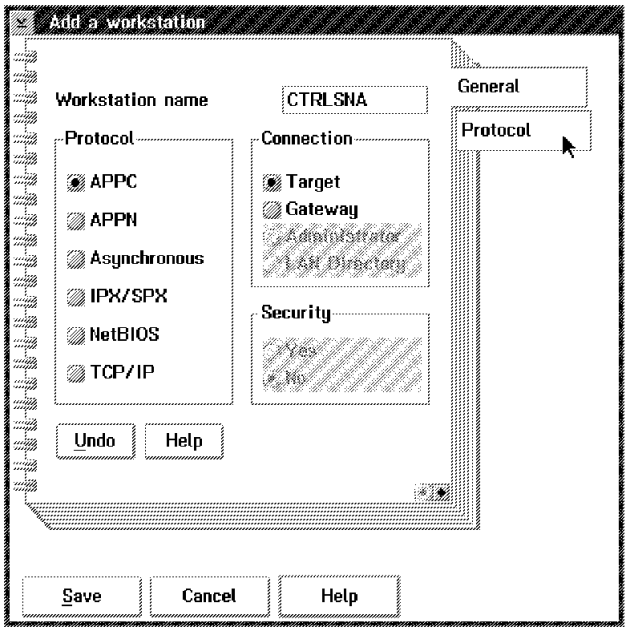
icon.

Step 3. Click **Session** and **Open workstation directory**.

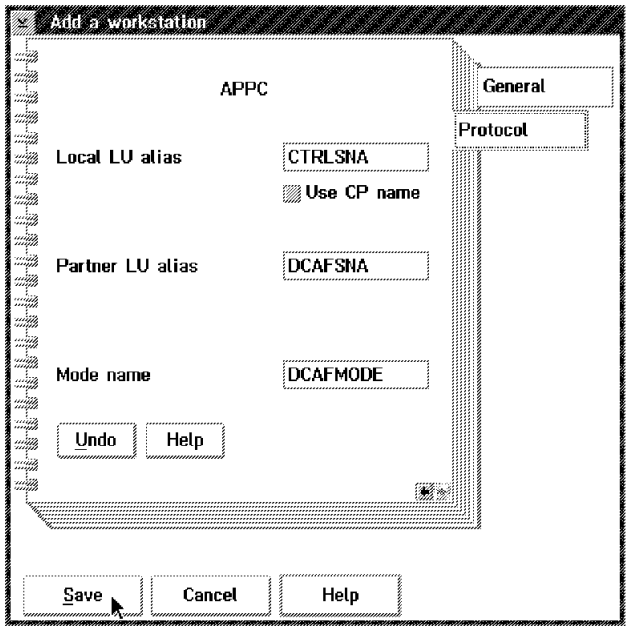
Step 4. Click **OK** for a first installation, otherwise continue with next step.

Step 5. Click **Workstation**, then **Add**.

Step 6. Fill in the **Workstation name** field (see Step 14 on page 6-9), select **APPC**, **Target**, and click **Protocol**.



Step 7. Fill in the **Local LU alias** field, the **Partner LU alias** field (refer to Table 4-1 on page 4-1), and enter DCAFMODE in the **Mode name** field. Then click **Save**, **OK** (on the subsequent window), and **Cancel**.



Step 8. From **Desktop Manager**, shutdown and restart the workstation.

NCP Definitions

The definitions in this section apply to NCP Version 6 Release 2.

All NCP generations attached to LUs that support LU 6.2 DCAF sessions must contain the following statement:

```
LUDRPOOL NUMILU=(any number > 0)
```

Remote Controlling Workstation

The following definitions apply to NCP1 between the controlling workstation LAN and the SNA network (see Figure 6-1 on page 6-1).

The address must be the same as defined in Step 9 on page 6-7.

1. Physical line and physical PU:

```
   .
   .
*-------------------------------------------------------------------*
* TIC3 BNN/INN:  PORT 2144                                          *
*-------------------------------------------------------------------*
K23C2144 LINE  ADDRESS=(2144,FULL),PORTADD=0,LOCADD=400000232144    *
               MAXTSL=16732,LSPRI=PU,PUTYPE=1,ANS=CONTINUE,         *
               ADAPTER=TIC3,TRSPEED=16,TRANSFR=254                  *
S23C2144 PU    ADDR=01,                                             *
               INNPORT=YES
   .
   .
```

2. Logical group with at least one LINE/PU to be used by the service processor:

```
   .
   .
*************************************************************************
*                                                                       *
*   TIC3       GROUP L23G2144: LAN  LOGICAL  DEFINITIONS FOR 37CS       *
*                                                                       *
*                                                                       *
*************************************************************************
L23G2144 GROUP DIAL=YES,LNCTL=SDLC,TYPE=NCP,ECLTYPE=(LOGICAL,PER),     *
               CALL=INOUT,PHYSRSC=S23C2144,                             *
               LINEAUT=YES,                                             *
               MAXPU=1,                                                 *
               NPACOLL=NO,                                              *
               PUTYPE=2,                                                *
               RETRIES=(6,0,0,6)
R23A0001 LINE
Z23A0001 PU
   .
   .
```

Target Service Processor

The following definitions apply to NCP2 between the service LAN and the SNA network (see Figure 6-1 on page 6-1).

1. Physical line and physical PU:

```
   .
   .
*-----------------------------------------------------------------------*
* TIC3 BNN/INN:  PORT 2080 ATT TO CONTROLLER FF  PORT 1092 - PHYSICAL *
*-----------------------------------------------------------------------*
K50C2080 LINE  ADDRESS=(2080,FULL),PORTADD=0  P ,LOCADD=400000502080,*
               MAXTSL=16732,LSPRI=PU,PUTYPE=1,ANS=CONTINUE,             *
               ADAPTER=TIC3,TRSPEED=16,TRANSFR=254
S50C2080 PU    ADDR=01,*
               INNPORT=YES
   .
   .
```

2. Logical group with at least one LINE/PU to be used by the service processor:

```
   .
   .
*************************************************************************
*                                                                       *
*   TIC3       GROUP L78G2080: LAN  LOGICAL  DEFINITIONS FOR 37CS     *
*                                                                       *
*                                                                       *
*************************************************************************
L50G2080 N  GROUP DIAL=YES,LNCTL=SDLC,TYPE=NCP,ECLTYPE=(LOGICAL,PER), *
               CALL=INOUT,PHYSRSC=S50C2080,                            *
               LINEAUT=YES,                                            *
               MAXPU=1,                                                *
               NPACOLL=NO,                                             *
               PUTYPE=2,                                               *
               RETRIES=(6,0,0,6)
R50A0001 LINE
Z50A0001 PU
   .
   .
   .
```

VTAM Definitions

The VTAM* definitions in this section are for Version 3 Release 4.1.

Start Definitions

The following VTAM start definitions must be used in both VTAM1 and VTAM2, as shown in Figure 6-1 on page 6-1:

```
*
*                VTAM START DEFINITIONS
*
HOSTSA=10,SSCPID=10,MAXSUBA=63,
CONFIG=10,NETID= SYSTST  A ,SSCPNAME=CDRM12,

XNETALS=YES,DYNLU=YES,

NOPROMPT,DLRTCB=32,SUPP=NOSUP,NOTNSTAT,NOTRACE,TYPE=VTAM,
LPBUF=(120,,0,,60,60),      LARGE GENERAL PURPOSE _ PAGEABLE
LFBUF=(96,,0,,24,10),       LARGE GENERAL PURPOSE _ FIXED
SFBUF=(128,,0,,32,10),      SMALL GENERAL PURPOSE _ FIXED
CRPLBUF=(160,,13,,80,80),   RPL_COPY _ PAGEABLE
IOBUF=(256,256,34,,68,68)   I/O BUFFERS _ FIXED (NP & PP BUF REMOVED)
```

Logmode Table

The following VTAM logmode table must be used in both VTAM1 and VTAM2 as shown in Figure 6-1 on page 6-1:

```
SOCMOTAB  M  MODETAB
DCAFMODE MODEENT LOGMODE=DCAFMODE  I ,
              TYPE=0,
              FMPROF=X'13',
              TSPROF=X'07',
              PRIPROT=X'B0',
              SECPROT=X'B0',
              COMPROT=X'50B1',
              SSNDPAC=X'08',
              SRCVPAC=X'08',
              RUSIZES=X'8787',
              PSNDPAC=X'08',
              PSERVIC=X'060200000000000000002F00'
         MODEEND
         END  SOCMOTAB
```

Major Node Definitions

Remote Workstation

The following VTAM major node definitions must be used in VTAM1 as shown in Figure 6-1 on page 6-1:

```
*=========*=========*=========*=========*=========*=========*=========*
*                                                                     *
*     MAJNODE FOR CONNECTION :  Remote console <==> VTAM V3R4         *
*                                                                     *
*                                                                     *
*=========*=========*=========*=========*=========*=========*=========*
NTVCTRL  VBUILD TYPE=SWNET,MAXGRP=1,MAXNO=1
*---------------------------------------------------------------------*
CTRL     PU    ADDR=04,PUTYPE=2,NETID=SYSTST  E ,CPNAME=CPCTRL  F      X
               MAXPATH=8,MAXDATA=265,MAXOUT=1,                         X
               DISCNT=NO,
CTRL1    LU    LOCADDR=0,MODETAB=SOCMOTAB  M
```

Target Service Processor

The following VTAM major node definitions must be used in VTAM-2, shown in Figure 6-1 on page 6-1:

```
*=========*=========*=========*=========*=========*=========*=========*
*                                                                     *
*     MAJNODE FOR CONNECTION :  MOSS-E  <==> VTAM V3R4                *
*                                                                     *
*                                                                     *
*=========*=========*=========*=========*=========*=========*=========*
NTVMOSSE VBUILD TYPE=SWNET,MAXGRP=1,MAXNO=1
*---------------------------------------------------------------------*
MOSSE    PU    ADDR=04,PUTYPE=2,NETID= SYSTST  A ,CPNAME= MOSSNMVT    X C
               MAXPATH=8,MAXDATA=265,MAXOUT=1,                         X
               DISCNT=NO,
PATHMOSS PATH  DIALNO= P  00 04 400000000007  D ,GRPNM=L50G2080  N
 DCAFSNA  B  LU    LOCADDR=0,MODETAB=SOCMOTAB  M
```

Chapter 7. TCP/IP LAN-Attached Remote Workstation

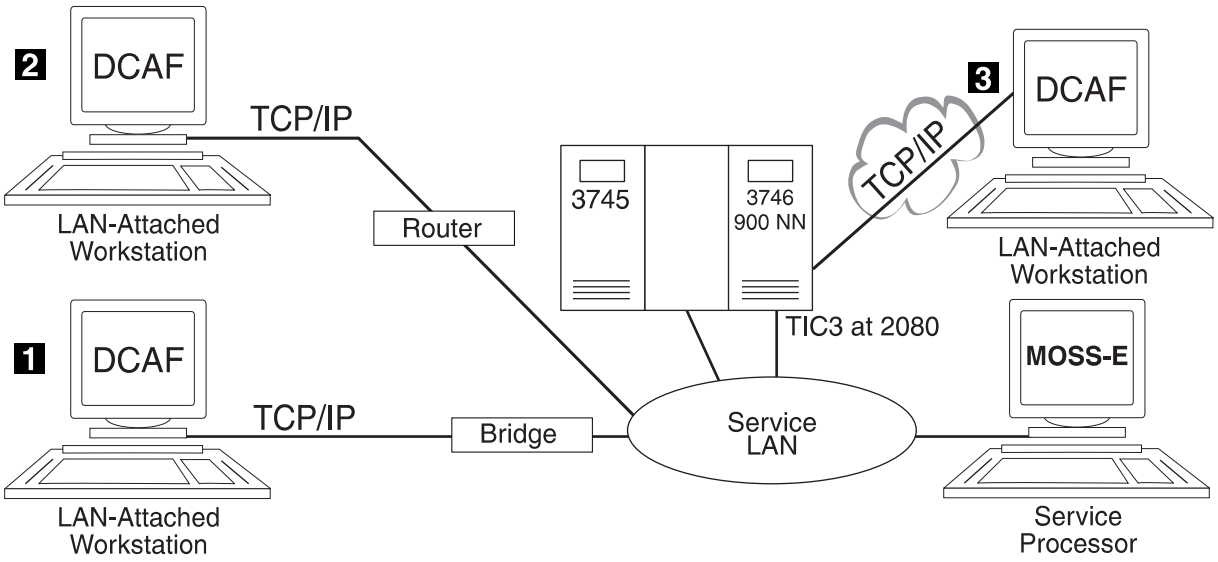


Figure 7-1. Types of TCP/IP Service LAN-Attached Remote Workstations

This chapter shows you how to configure a DCAF session for controlling a target service processor.

The path between the controlling workstation and the service processor can be either through:

- A **bridge** with filtering to the service LAN (see 1 in Figure 7-1).
- A **router** to the service LAN, which can be either:
  - A **non-3746** router (see 2 in Figure 7-1)
  - The **3746** router (see 3 in Figure 7-1).

  A controlling workstation can be connected as in 2 or 3, but you cannot have both types of connections at the same time.

Configuring a Target Service Processor

Important

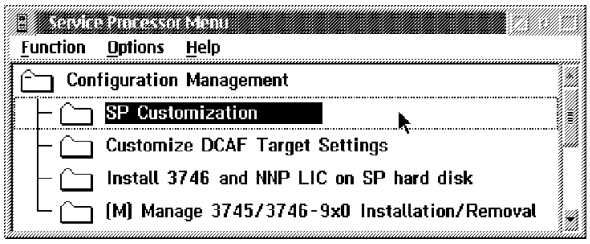
You can use the worksheets in the *Planning Guide*, GA33-0457 to record the necessary parameter values described in this section.

The following procedure configures the MOSS-E to answer a controlling workstation:

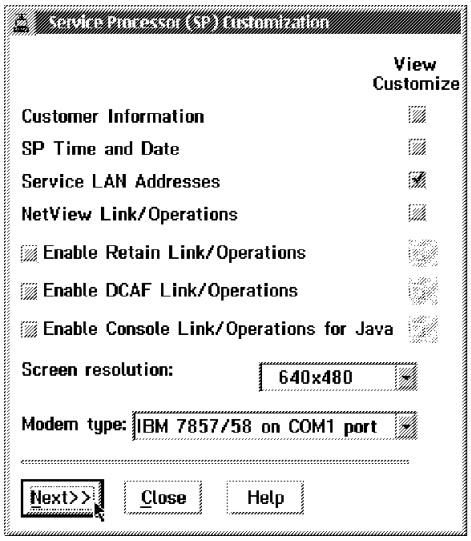
Step 1. Open the **Service Processor Menu**.

Step 2. Click **Configuration Management**.

Step 3. Double-click **SP Customization**.

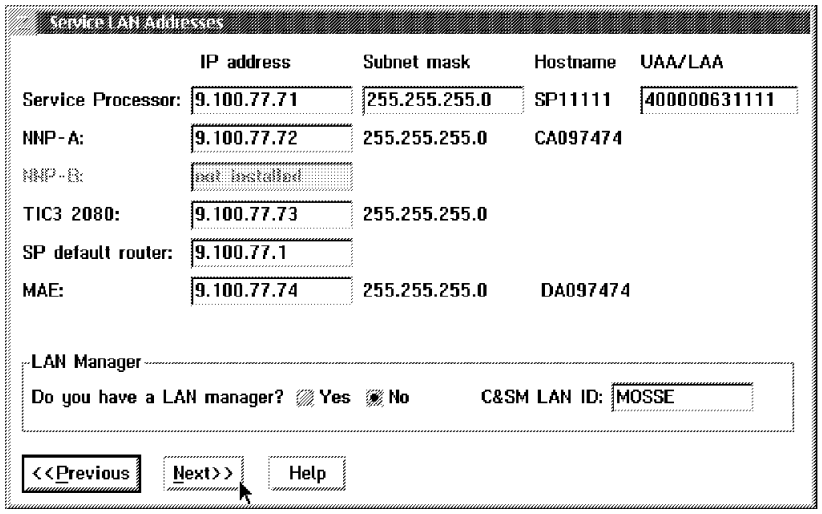


Step 4. Select **Service LAN Addresses** in the **View Customize** button list. Click **Next** to display the **Service LAN Addresses** screen.



Step 5. Record the **Service Processor IP address** (this will be used in Step 7 on page 7-4). If you have a link through the 3746 (see **3** in Figure 7-1 on page 7-1), enter the **TIC3 2080** address in the **SP default router** field and click **Next** and **Close**.

Otherwise, click **Next**, **Close** and **Yes** to save the configuration.



Step 6. Go to “Configuring a TCP/IP LAN-Attached Remote Workstation” for using this new DCAF session.

Configuring a TCP/IP LAN-Attached Remote Workstation

The following procedures shows you how to establish a link between a controlling workstation and the target service processor.

Configuring DCAF for TCP/IP

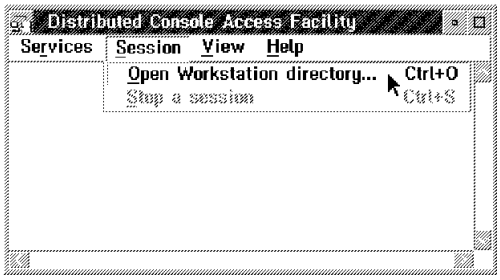
The following procedure configures a service processor in the remote DCAF.

Step 1. From Desktop Manager, double-click the **Distributed Console Access Facility** icon.

Step 2. Double-click the 

icon.

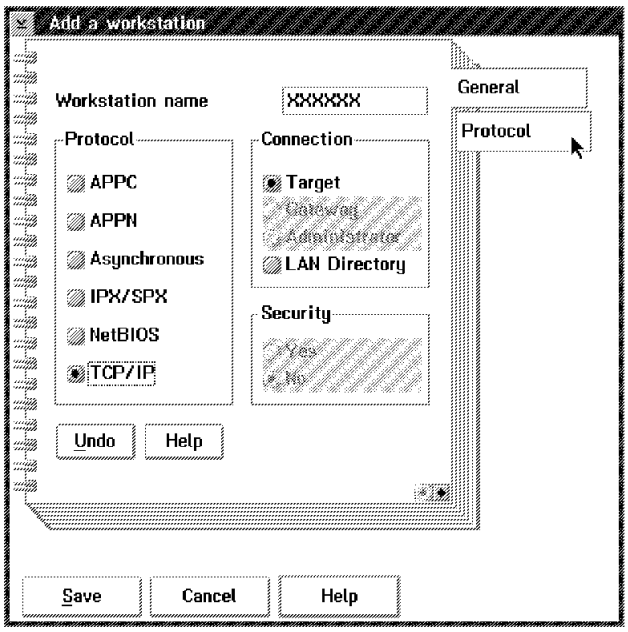
Step 3. Click **Session**, then **Open workstation directory**.



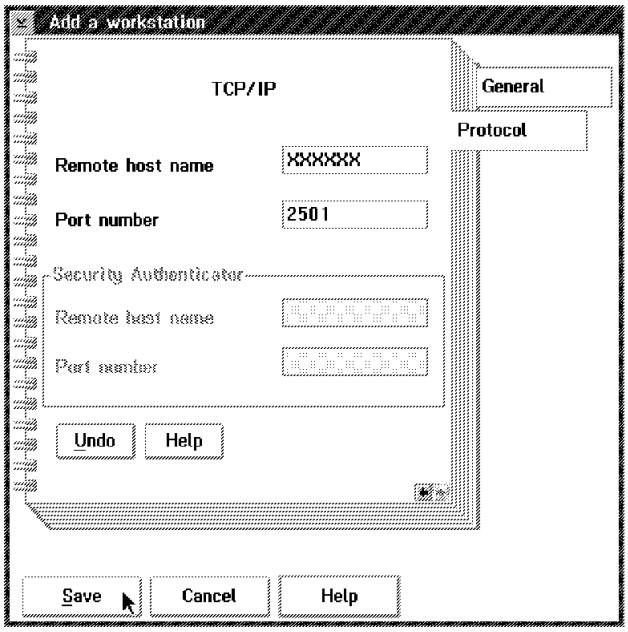
Step 4. Click **OK** for a first installation. Otherwise continue with next step.

Step 5. From the DCAF Directory window, click **Workstation** then on **Add**.

Step 6. Fill in the **Workstation name** field, select **TCP/IP** and click **Protocol**.



Step 7. Fill in the **Remote host name** (the IP address of the target service processor recorded in Step 5 on page 7-3) and **Port number** fields. Then click **Save** and **Cancel**.



Step 8. Continue with “Configuring TCP/IP” on page 7-5.

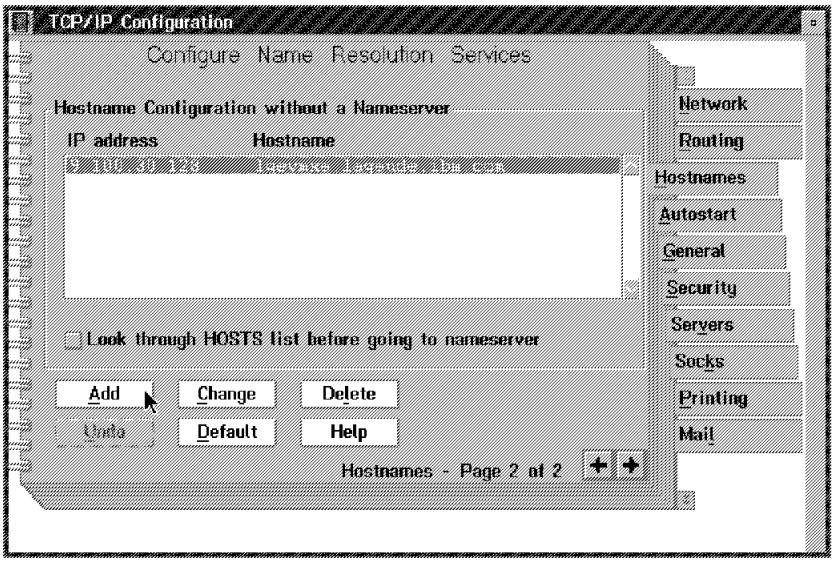
Configuring TCP/IP

The following procedure adds a service processor in the remote workstation TCP/IP.

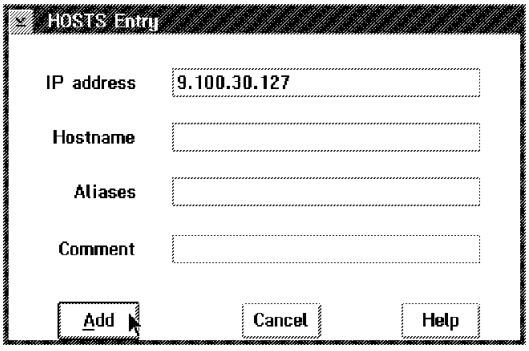
Step 1. Double click the **TCP/IP Configuration** icon on your desktop.

Step 2. Click **Host names**, open **page 2**, and click **Add**.

Note: If you are using an earlier version of TCP/IP, click **Services** and select page **3 of 3**.



Step 3. Fill in the **IP address** field of the target workstation (the IP address of the TIC 2080), the **Host name** field (optional) and click **Add**.



Step 4. Close the TCP/IP window.

Step 5. Click **Save**.

Step 6. Go to Chapter 3, “Using DCAF for Remote Access to the Service Processor” for using this new DCAF session.

Chapter 8. APPC LAN-Attached Remote Workstation

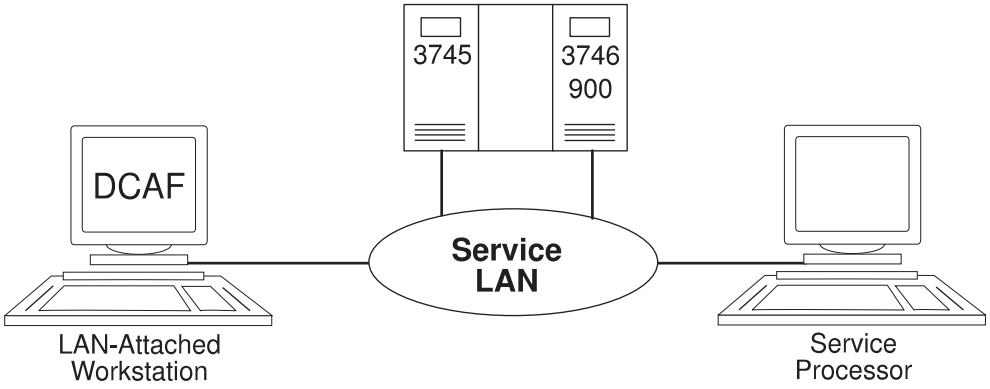


Figure 8-1. APPC Service LAN-Attached Remote Workstation

This chapter describes how to configure a DCAF session for controlling a target service processor (see Figure 8-1).

If you have more than one target service processor

You must respect the parameter value matching rules given in Appendix C, “Configuration for a Two-Target Remote Workstation.”

Configuring a Target Service Processor

Important

You can use the worksheets in the *Planning Guide*, GA33-0457 to record the necessary parameter values described in this section.

This section describes the following:

- The MOSS-E configuration for a DCAF link to the communication controller
- The MOSS-E parameters required for use in the controlling workstation.

Parameter Values that Must Be the Same

Table 8-1 on page 8-2 gives the sets of MOSS-E parameters that must have the same value in both the remote workstation and the target service processor.

Table 8-1. Identical Target and Controlling Parameters (APPC LAN)	
In the Service Processor	**In the Remote Workstation**
Local Node Network ID (Figure 8-2 on page 8-3)	**Partner network ID** (Step 13 on page 8-9) and **Network ID** (Step 14 on page 8-9)
SDLC LU name (Figure 8-3 on page 8-4)	**Partner node name** (Step 13 on page 8-9) and **Partner LU alias** (Step 7 on page 8-12) and **LU name** (Step 14 on page 8-9)
TIC2 or TIC3 LAA (Figure 8-2 on page 8-3)	**LAN Destination address** (Step 13 on page 8-9)
TIC3 RSAP (Figure 8-2 on page 8-3)	**Remote SAP** (Step 13 on page 8-9)

The workstation configuration procedure in this chapter explains how to find these parameters in the remote workstation.

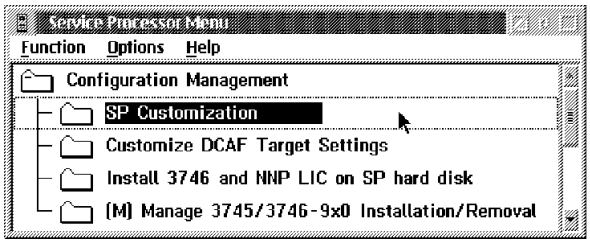
Configuring the Service Processor in MOSS-E

The following procedure explains how to find, record, and configure service processor parameters:

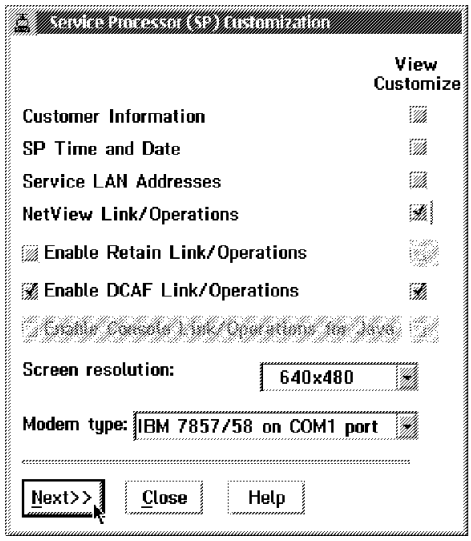
Step 1. In MOSS-E, double-click the **Service Processor** object.

Step 2. Click **Configuration Management**.

Step 3. Double click **SP Customization**.



Step 4. Select **Enable DCAF Link/Operations** and **NetView Link/Operations** in the **View Customize** button list. Click **Next** and **Next** again.



Step 5. Record the values in the **Network ID**, **TIC2 or TIC3 LAA**, and **TIC3 RSAP** fields (see Figure 8-2 and refer to Table 8-1 on page 8-2). Then click **Next**.

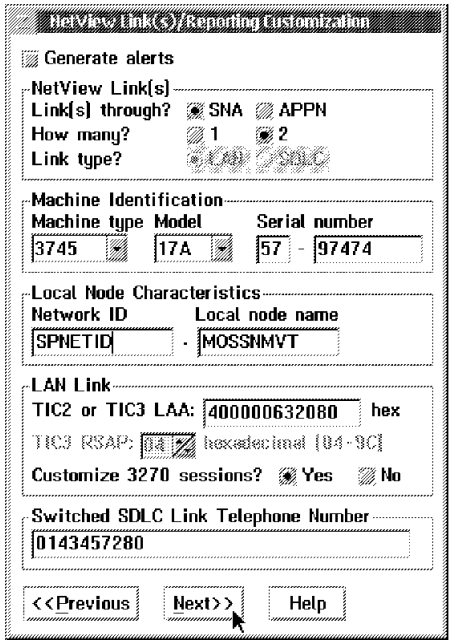


Figure 8-2. NetView Link/Reporting Customization

Step 6. Record the value in the **SDLC LU name** field, select **Yes** to **Accept any incoming calls on SP?** and fill in the **Local phone number** field.

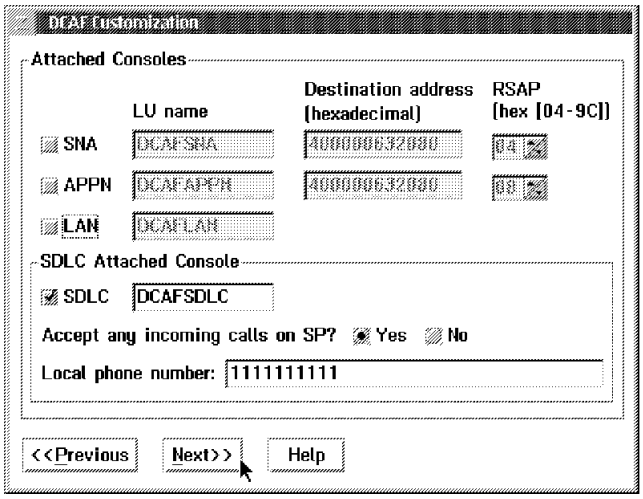


Figure 8-3. DCAF Customization

Step 7. Click **Next**, click **Close** and **Yes** to save the configuration.

Step 8. Shutdown and restart the service processor.

Step 9. Go to “Configuring a APPC LAN-Attached Remote Workstation.”

Configuring a APPC LAN-Attached Remote Workstation

The following procedure shows you how to establish a link between the controlling workstation and a service processor, via an APPC type LAN environment.

Configuring CS/2

Important

The procedure below is the same in CM/2 unless otherwise indicated.

Step 1. From **Desktop Manager**, double-click the **CS/2** icon.

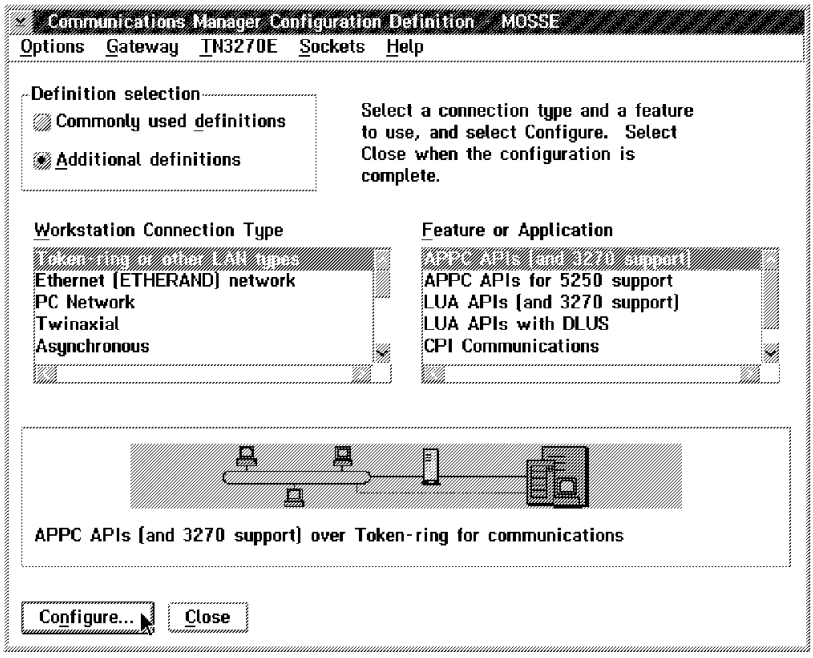
Step 2. Double-click the 

icon.

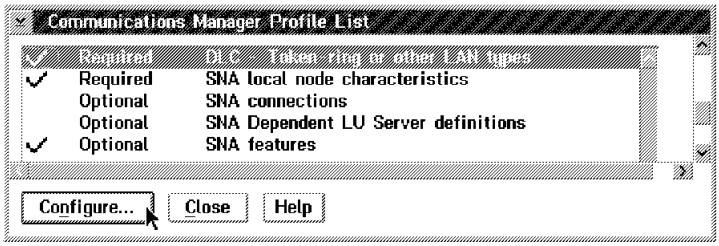
Step 3. Click **Setup**.

Step 4. Select a configuration from the **Configurations** list, and click **OK**.

Step 5. Select **Additional definitions**, **Token-ring or other LAN types**, and **APPC APIs**, then click **Configure**.



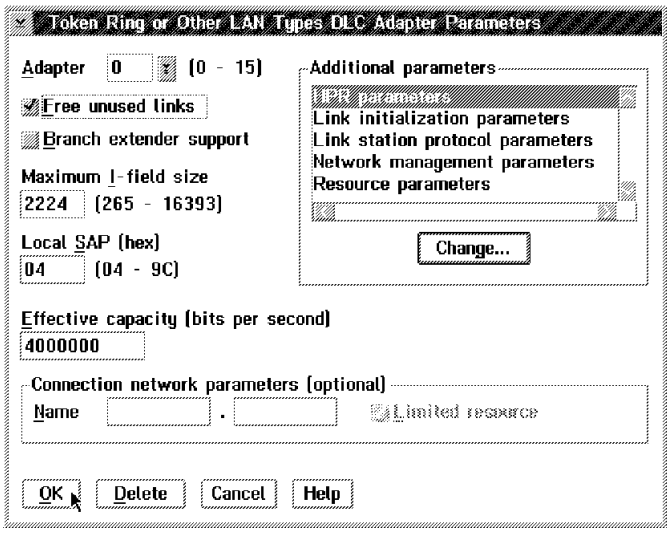
Step 6. Select **DLC - Token-ring or other LAN types** and click **Configure**.



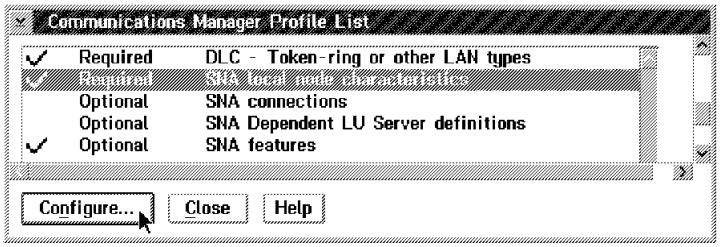
Step 7. Select **Free unused links** (in CM/2, select **Free unused links** and click **OK**). From the **Additional Parameters** list, highlight and check the following, using the **Change** button.

- Select **HPR parameters** and de-select **HPR support**.
- Check that the defaults apply to **Link station protocol parameters**, **Network management parameters**, and **Resource parameters**.

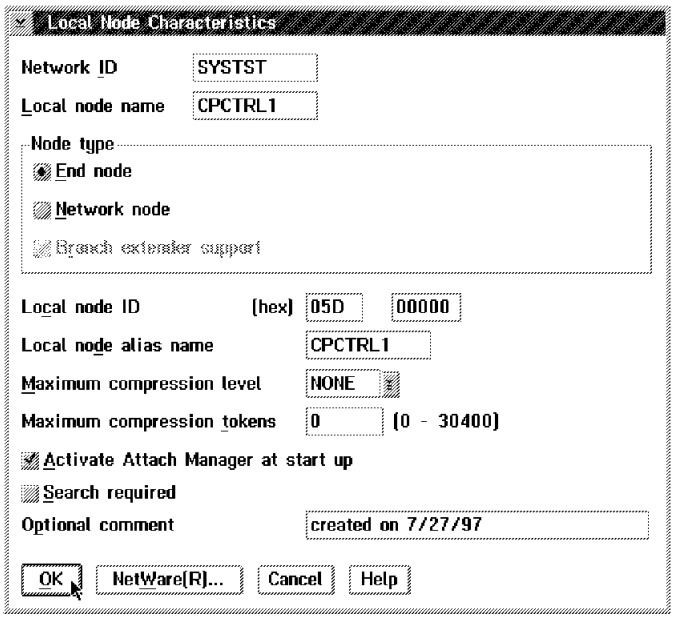
Then click **OK**.



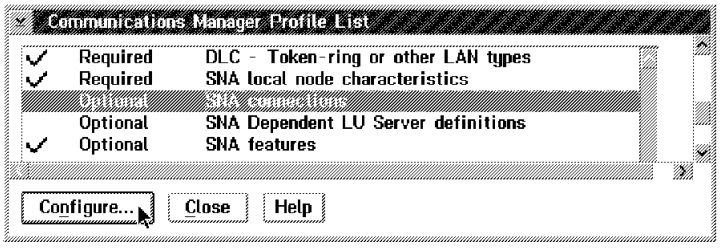
Step 8. Select **SNA local node characteristics** and click **Configure**.



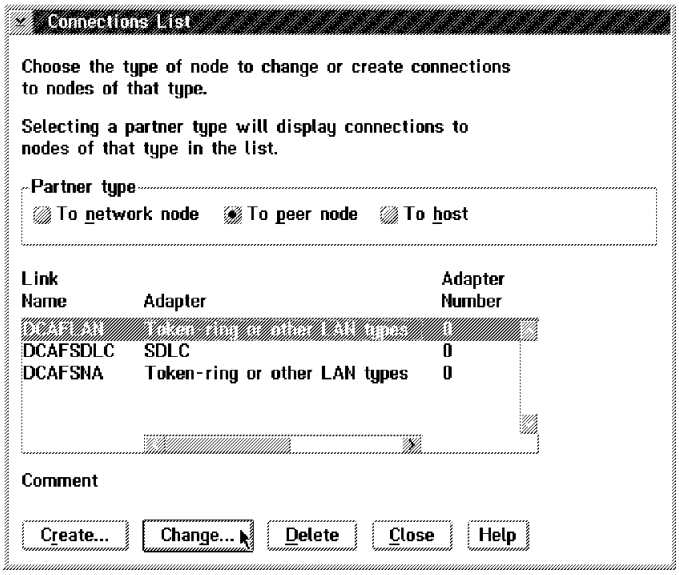
Step 9. Modify the **Network ID** and **Local node name** fields, select **End node** and click **OK**.



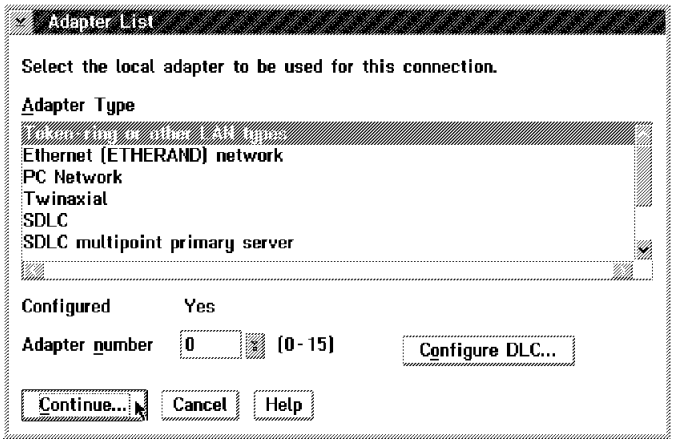
Step 10. Select **SNA connections** and click **Configure**.



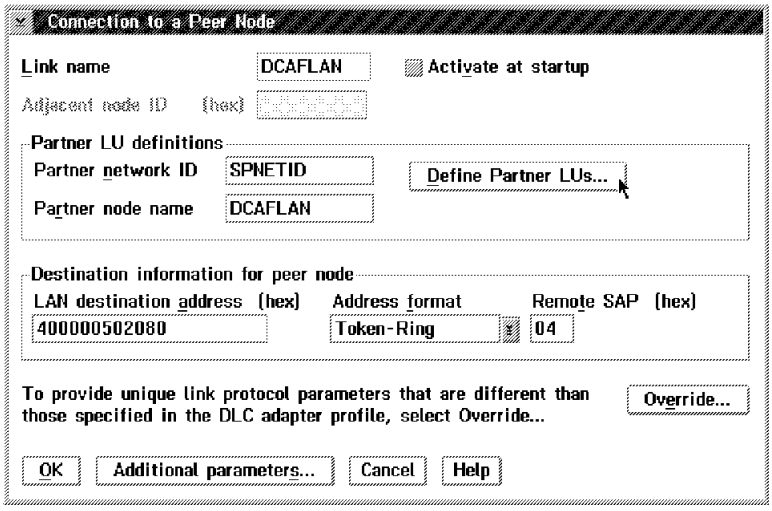
Step 11. Click **To peer node**, select **DCAFLAN** from the list and click **Change**.



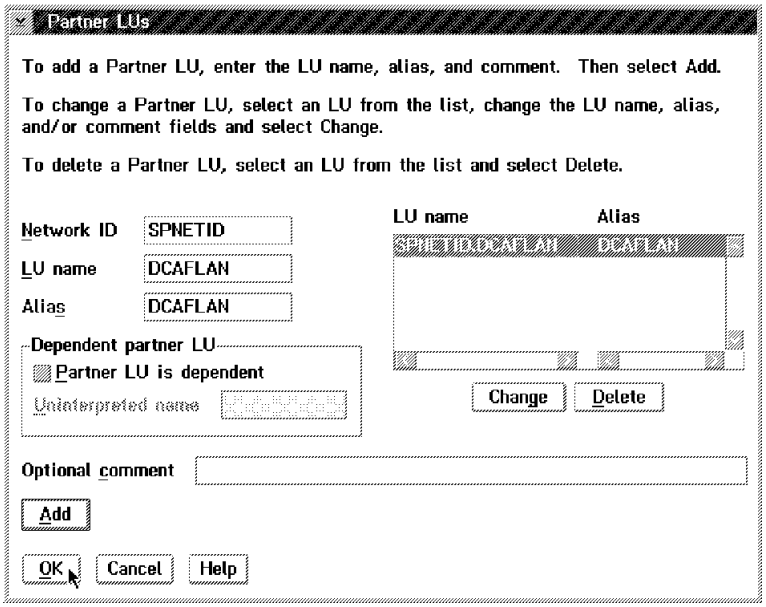
Step 12. Select **Token-ring or other LAN types** and click **Continue**.



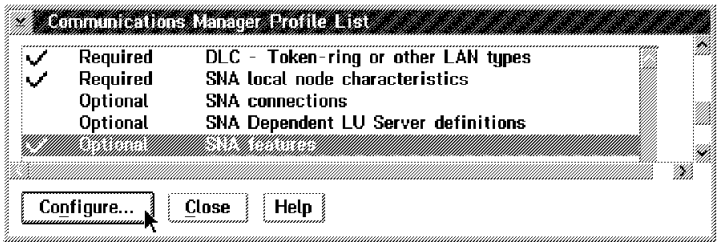
Step 13. Refer to Table 8-1 on page 8-2 and fill in the **Partner network ID** (the network name), the **Partner node name** (the network of the target service processor), the **LAN destination address** (the address of the service processor), and the **Remote SAP** fields. Then click **Define Partner LUs**.



Step 14. Refer to Table 8-1 on page 8-2 and fill in the **Network ID** and **LU name** fields. Fill in the **Alias** field, click **OK** and then **Close**.

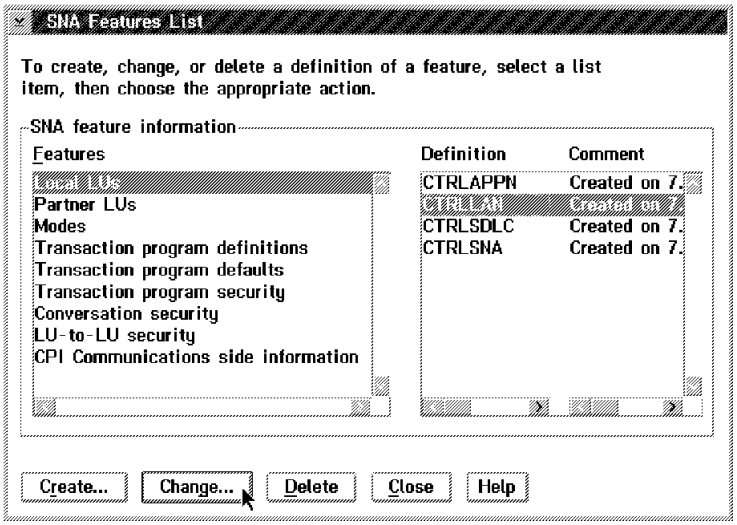


Step 15. Select **SNA features** and click **Configure**.

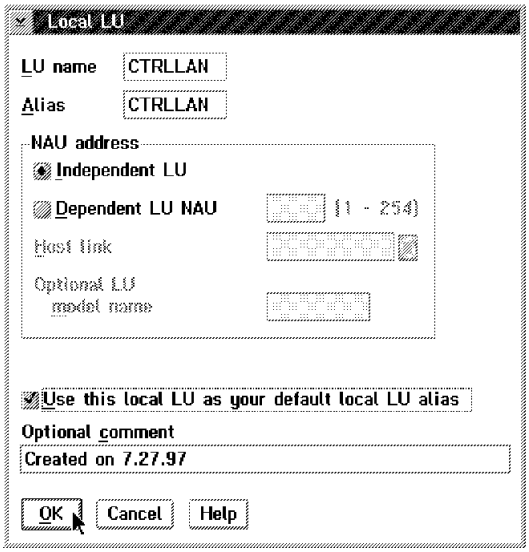


Step 16. Click **Add** and **OK**.

Step 17. Select **Local LUs** and **CTRLLAN**, then click **Change**.



Step 18. Refer to Table 8-1 on page 8-2 and fill in the **LU name** and **Alias** fields. Select **use this local LU as your default local LU alias** and click **OK**.



Step 19. Click **Close** on each subsequent screen until you exit CS/2.

Step 20. Continue with “Configuring DCAF for APPC.”

Configuring DCAF for APPC

Step 1. On your desktop, double-click the **Distributed Console Access Facility** icon.

Step 2. Double-click the 

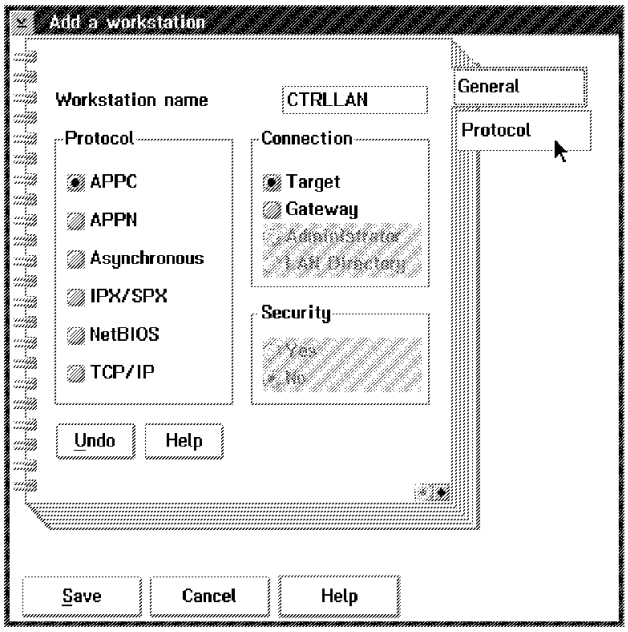
icon.

Step 3. Click **Session**, then **Open workstation directory**.

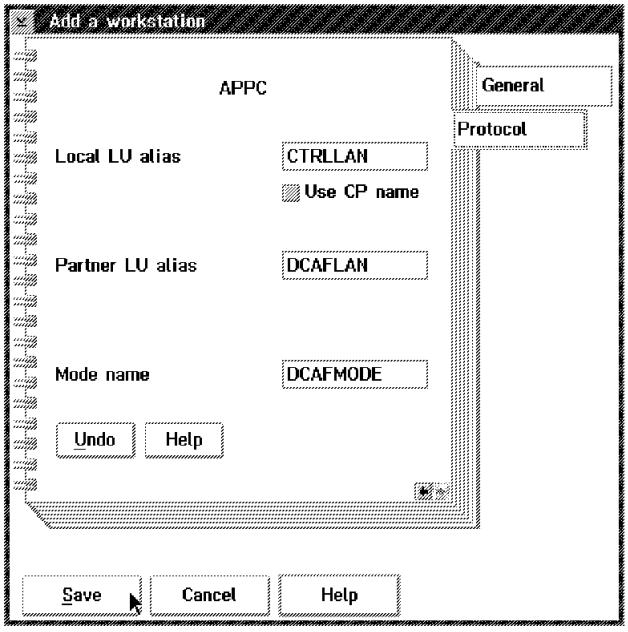
Step 4. Click **OK** for a first installation. Otherwise, continue with next step.

Step 5. Click **Add** in the **Workstation** directory.

Step 6. Fill in the **Workstation name** field (refer to **Local LU name** in Step 18 on page 8-11), select **APPC**, **Target**, and click **Protocol**.



Step 7. Fill in the **Local LU alias** field (refer to **Local LU name** in Step 18 on page 8-11), and **Partner LU alias** field (refer to Table 8-1 on page 8-2). Enter DCAFMODE in the **Mode name** field.



Step 8. Click **Save** and **Cancel**. The new workstation icon appears in the DCAF Directory window.

Step 9. Shutdown and restart the workstation.

Step 10. Go to Chapter 3, “Using DCAF for Remote Access to the Service Processor.”

Chapter 9. Telnet-attached Remote Workstation

Introduction

Any workstation that runs the Telnet Client program can remotely access the IP functions of a Network Node Processor (NNP). You can use Telnet on a remote workstation to configure and manage IP functions without disturbing the operations of the service processor.

However, when using Telnet:

- You cannot access the MOSS-E functions
- Only one remote workstation can access a NNP at a time.

Any remote workstation can access a NNP via Telnet.

Notes:

TCP/IP and Telnet Client programs are separate products from IBM applications for Communication Controllers. See the documentation that comes with these products for information on installation procedures.

Consoles

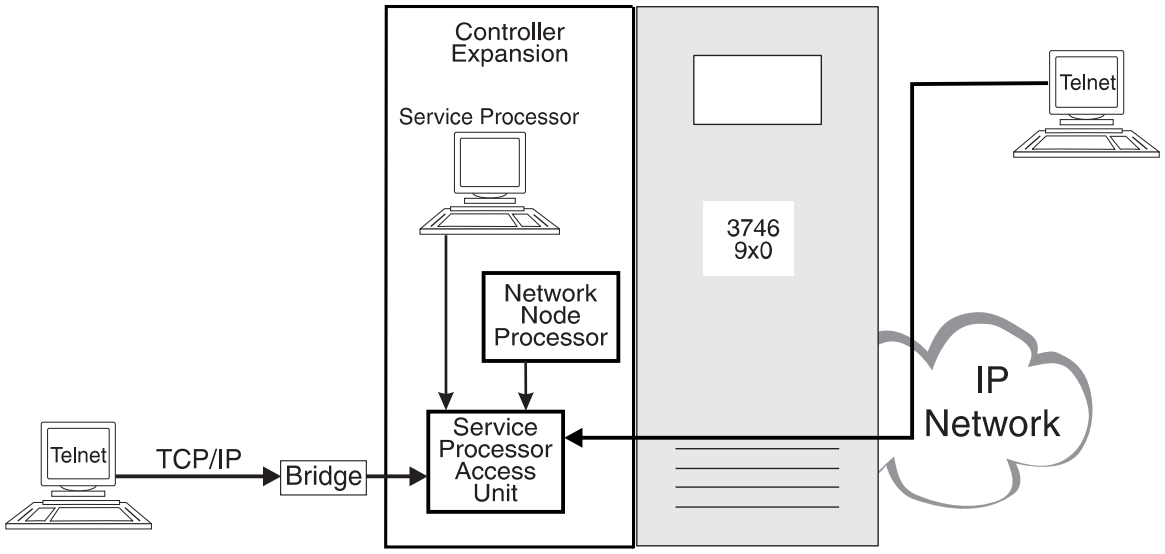


Figure 9-1. Telnet Workstation Configuration

A Telnet remote console can be attached to the service LAN (the Service Processor Access Unit in Figure 9-1) via a bridge with appropriate filtering, or via an IP network using resources controlled by the target Network Node Processor (NNP). See Figure 9-1 above.

These workstation attachments can be through either:

- LAN (Token-ring, Ethernet)
- WAN links (Frame-relay, Point-to-Point Protocol).

Logon Password

Telnet passwords are defined for access to the service processor during the installation of the NNP. If you have problems, see your network administrator.

Programming Requirements

For remote access to the functions of a NNP, your workstation must have an operating system (OS/2, for example) that can run TCP/IP.

Hardware Requirements and Recommendations

Any remote workstation can be used that supports IP and runs the Telnet Client program.

Installation

Before you begin the installation procedure for the network node processor, make sure that your workstation can run TCP/IP.

For installing or upgrading the TCP/IP application including the Telnet Client program, refer to the TCP/IP installation guide that comes with the product.

Using Telnet to Remotely Log On to the Network Node Processor

Starting a Session

Step 1. Open an operating system window (OS/2, for example).

Step 2. On the command line, type `telnet` followed by the IP address or nickname of the network node processor.

Step 3. Enter the Telnet password. The Telnet user session starts automatically.

Step 4. Enter one of the following:

- `T 6` to configure
- `T 5` to manage.

For more information, refer to the *3745 Communication Controller Models A, 3746 Nways Multiprotocol Controller Model 900: Basic Operations Guide*, SA33-0177.

Closing a Session

To close the session, press 

and 

together.

Chapter 10. Console for Java Remote Access

Overview of Console for Java

Communications

Console for Java supports communications using TCP/IP protocol over the following:

- Asynchronous cable and modem
- LAN.

Flexibility Support

Console for Java can run on the workstation as an Applet in a web browser, or as a Java program.

Programming Requirements

Requires microcode level F12720 on the service processor. Console for Java runs on OS/2 Warp (versions 3 and 4), Windows (95, 98, and NT), AIX/UNIX, and Macintosh workstations, with TCP/IP protocol installed, via a web browser or Java application program.

Network browsers

Console for Java has been tested with the following network browsers:

- Internet Explorer Version 4.01 for Windows 95
- Netscape Communicator Version 4.04 for Windows 95
- Netscape Explorer Version 2.02 with Java Version 1.1 for OS/2 Warp.

Mouse and Keyboard

Both the mouse and keyboard remain active for the remote workstation and the service processor during a session.

Remote Access with Console for Java

Console for Java can enable a remote workstation to access and control a service processor and network node processor (NNP) across the network. When a link has been established to the target service processor using Console for Java, you can run and control the programs and utilities running on the service processor. For example, with a link activated between the service processor and a remote workstation, you can monitor controller operations in MOSS-E. Console for Java also provides a utility for file transfer between the service processor and the remote workstation, for example, CCM configuration files.

Note: You can download files from the service processor to the remote workstation with Console for Java running as an Applet (web browser-based). However, to upload files from the workstation to the service processor, you need to install the Console for Java program onto your workstation hard disk.

For more information on installing Console for Java on your remote workstation, see “Installing Console for Java as a Program on a Remote Workstation” on page 12-1.

Remote Workstation Access to a Service Processor

There are two possible links between the remote workstation and the service processor:

Remote Access Via Switched-Line (Modem)

In this scenario, the service processor is configured to run PPP server over a COM1 port attached to an asynchronous modem. Using Console for Java, a remote workstation asynchronous modem can connect with PPP dial-up client to the service processor and other devices on the service ring, including other service processors and NNPs.

The configuration for this type of link is described in “Remote Workstation Access Via Switched Line (Modem)” on page 11-2.

Remote Access Via the Service LAN

In this scenario, the remote workstation connects to the service processor through the TIC 3 2080 port of the 3746, or the TIC 2 port of a 3745, or via a bridge or router installed on the service ring.

Prerequisite: The TIC 3 2080 port on the 3746 requires 3746 IP Routing, feature code 5033.

The configuration for this type of link is described in “Remote Workstation Access Via Service LAN” on page 11-12.

Configuring Console for Java

Support for Console for Java (either as an Applet or as a program) and for DCAF is provided by microcode level F12720. When the new level of microcode is installed, you have the option of retaining support for DCAF or selecting Console for Java for remote access.

The procedure for making this selection is described in “Procedure for Configuring the Service Processor.”

To install Console for Java as a program on your workstation, see Chapter 12, “Installing Console for Java Program” on page 12-1.

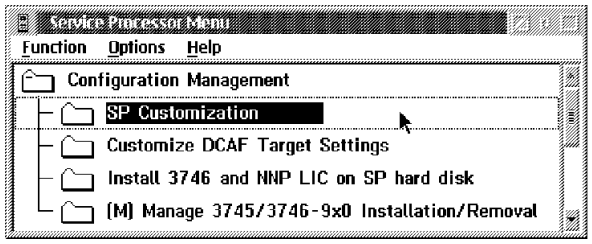
Procedure for Configuring the Service Processor

Use the following procedure to select Console for Java after the new microcode upgrade on your service processor.

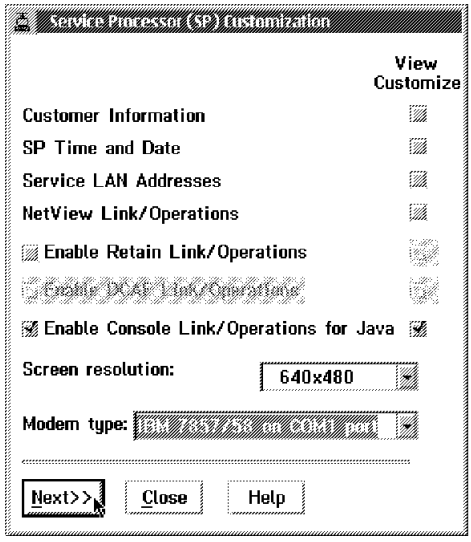
Step 1. In MOSS-E, double-click the **Service Processor** object.

Step 2. Click **Configuration Management**.

Step 3. Double click **SP Customization**.



Step 4. In the **Service Processor (SP) Customization** screen, de-select **Enable DCAF Link/Operations** if it is enabled, and select **Enable Console Link/Operations for Java** and **View Customize** in the parallel column. Select a modem from the **Modem type** field and click **Next**.



Step 5. In this Step, you need to assign IP addresses for the PPP Server and PPP Client. (These are different from the IP address of the service processor and the remote workstation.)

Customizing the PPP Server on the service processor

Fill in the **PPP Server**[1] with an IP address for the Server assigned within the same subnet range as the IP address of the service processor.

Customizing the PPP Client on the service processor

Fill in the **PPP Client** field with an IP address for the Client assigned within the same subnet range as the IP address of the service processor.

Select **Incoming calls** and enter the modem phone number in the **Phone number** field. Enter the speed of workstation communication port in the **DTE Speed** field.

DTE speeds: For modem 7858, enter 115200. For modem 7857, enter 19200. If you have a problem with these settings, select a lower speed.

Enter a value in the **MRU Size**[2] field. (You can also leave the default values.)

Click **View/Change Passwords**.

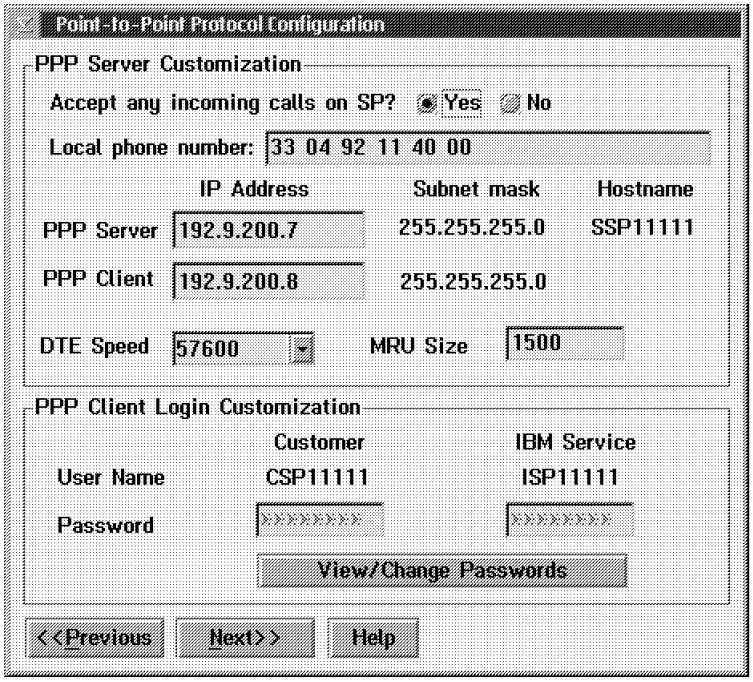


Figure 10-1. Point-to-Point Protocol Configuration Screen

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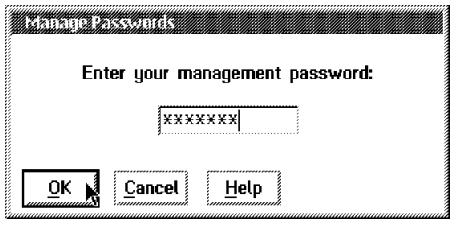
1 You can assign any IP address in this field, but if you want to access other devices connected to the service processor (the NNP, for example), then assign a number within the same subnet range.

2 MRU stands for maximum request/reply unit, and any value entered into this field must fall within the range 476-1500. If you have performance problems, specify a lower value.

Step 6. Enter your management password and click **OK**.

Management Password: The management password is the same as the one assigned to the service processor in MOSS-E. The default is **IBM3745**.



Step 7. If there are any passwords, they are now visible in the **Customer** and **IBM Service** field. Modify or enter new passwords for you and the IBM service representative and click **Next**. Passwords must be in upper case and up to 8 alphanumeric characters in length. New passwords appear in the fields in asterisk format.

Note: It is recommended that you provide new passwords for additional security over the network. The default passwords are **IBM3745C** for you and **IBM3745I** for the IBM service representative. However, you will only need these passwords if you are configuring or using a switched line (modem) connection between the service processor and the remote workstation.

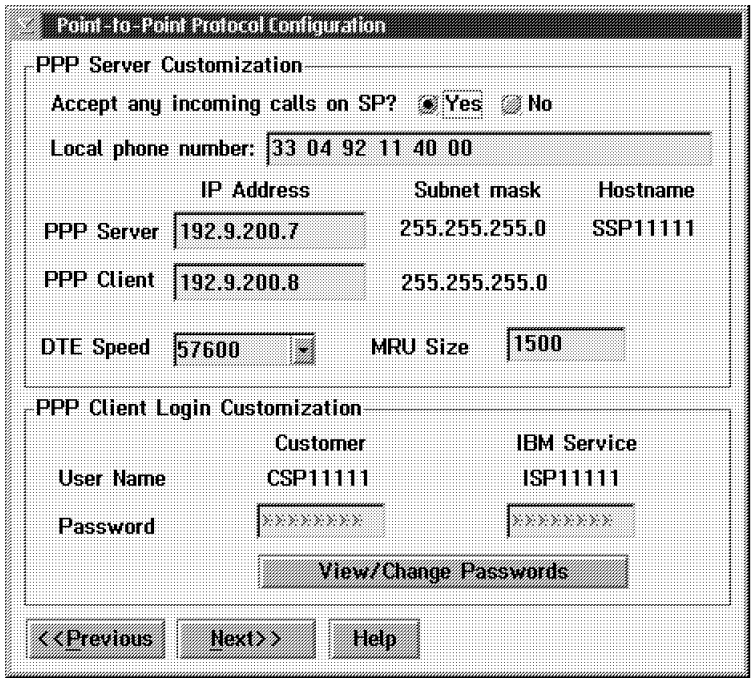


Figure 10-2. Entering Customer and IBM Service Passwords

Step 8. In this Step, you can change the Login IDs and assign passwords to the service processor and the NNP (A and B).

Customizing Console for Java Remote Access

The entries for the service processor and the both NNPs under the **Login** field are the default. For the service processor, the default login is:

- `SPxxxxx`
  where `SP` indicates the service processor, and `xxxxx` indicates the last five digits of the service processor serial number.

For the NNP, the default login is:

- `CA1xxxxx` (or `CB1xxxxx` for the backup NNP)
  where `CA1` indicates the NNP, and `xxxxx` indicates the last five digits of the NNP serial number.

Change the Login IDs if you need to. If you want to enter or modify a password for the service processor or an NNP, click **View/Change Passwords** (see Figure 10-2 on page 10-5). The default is no password.

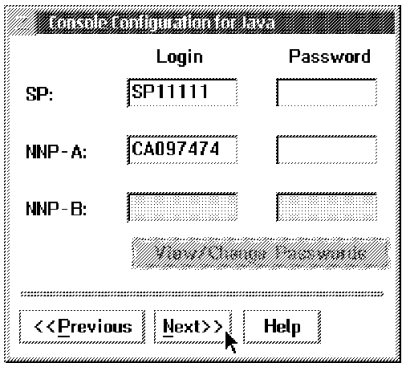


Figure 10-3. Console Configuration for Java Screen

Step 9. Click **Next**, **Close**, and **Yes** to save the configuration.

Step 10. Go to Chapter 11, “Using Console for Java to Remotely Access a Service Processor with a Web Browser” on page 11-1.

Chapter 11. Using Console for Java to Remotely Access a Service Processor with a Web Browser

Running Console for Java on a remote workstation either as an Applet or as a program, you can access and control a service processor across the network. Console for Java can access the service processor over two types of network connection:

- Using a modem on the remote workstation to connect across a switched line to a modem of the service processor[1].
- Using the workstation to connect to a service processor across a LAN.

This section includes procedures for configuring the Console for Java link using a web browser. Procedures include the following:

- Configuring the Console for Java link between the remote workstation and the service processor (either through modem or on a LAN).
- Initiating a configured link between the remote workstation and the service processor using a web browser.

The procedure for initiating a link with Console for Java are the same unless otherwise noted. However, the procedures for configuring a remote workstation and service processor are different according to the type of link established on the network. To proceed, see one of the following:

- "Remote Workstation Access Via Switched Line (Modem)" on page 11-2.
- "Remote Workstation Access Via Service LAN" on page 11-12.

For the procedure on installing Console for Java as a program on your workstation, see "Installing Console for Java as a Program on a Remote Workstation" on page 12-1.

Remote Workstation Requirements

Console for Java runs on the following platforms:

- OS/2 Warp (version 3.0 and higher).
- Windows 95, NT, and 98.
- AIX/UNIX.
- Macintosh.

With any of the platforms listed above, the workstation requires a web browser, and Java 1.1 (or higher). Recommended web browsers include the following:

- Netscape 2.02 (for OS/2 Warp)
- Internet Explorer 4.01 (for Windows 95)
- Netscape Communicator 4.04 (for Windows 95).

[1] Service processors 3172, 7585, and 6275 are shipped with an asynchronous modem. However, if you are using a service processor with an integrated modem, you will not be able to configure a workstation modem for Console for Java access.

Remote Workstation Access Via Switched Line (Modem)

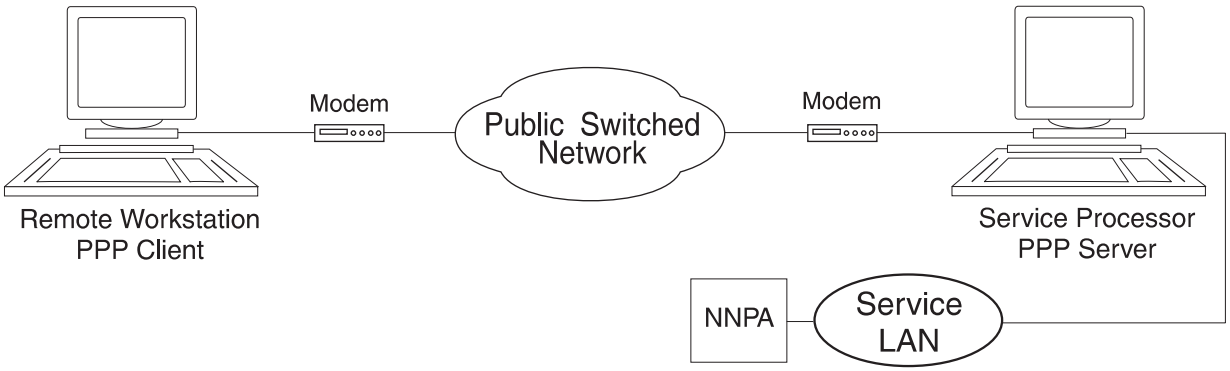


Figure 11-1. Modem-Attached Remote Workstation Using Console for Java

This section contains the following example procedures for two different remote workstation platforms:

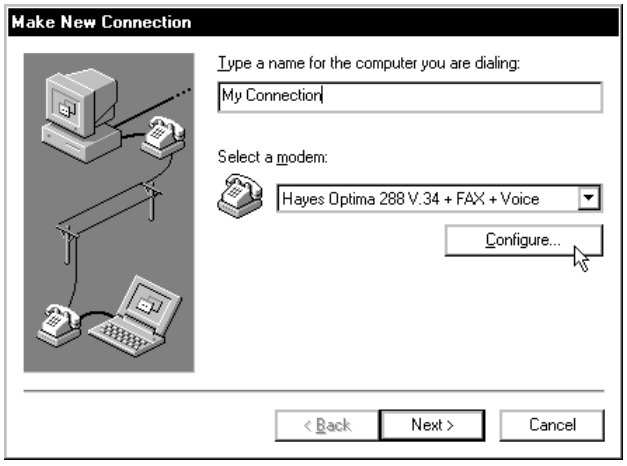
- In “Configuring the Remote Workstation in Windows 95.”
- In “Configuring the Remote Workstation in OS/2 Warp” on page 11-8.

Configuring the Remote Workstation in Windows 95

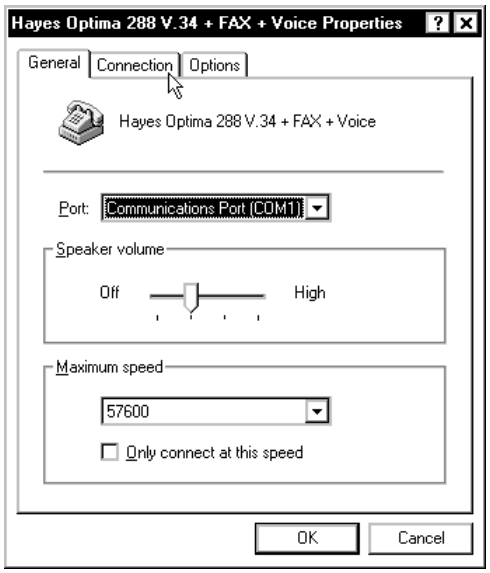
It is assumed that the TCP/IP network component and workstation modem is correctly installed and configured.

Step 1. Click **My Computer** and double-click the **Dial-Up Networking** folder.

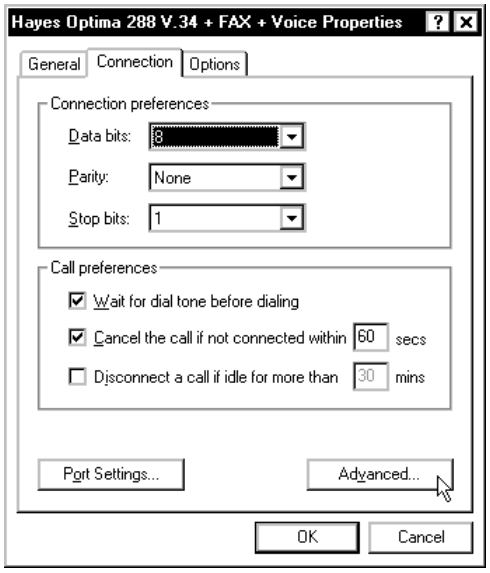
Step 2. Double click **Make New Connection**. Enter a name for the configuration, check that your modem is displayed, then click **Configure**.



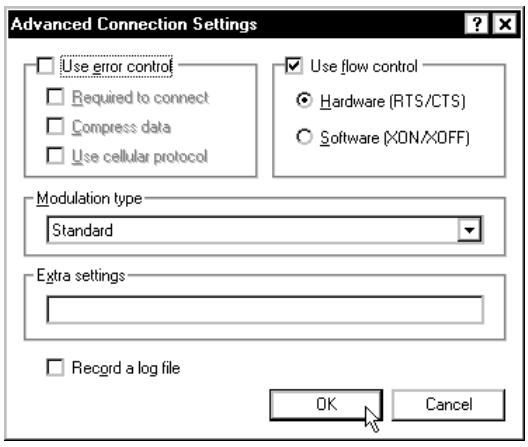
Step 3. Enter the COM port of the modem, the modem speed (the maximum speed, for example, 115200 for modem 7858, or 19200 for modem 7857), and click the **Connection** tab.



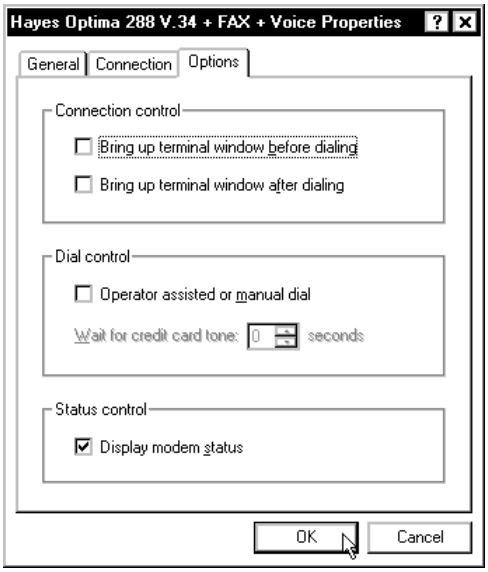
Step 4. Enter 8 in **Data bits**, None in **Parity** and 1 in **Stop bits**. Check **Wait for dial tone before calling** and **Cancel the call if not connected within 60 seconds**, the click the **Advanced** button.



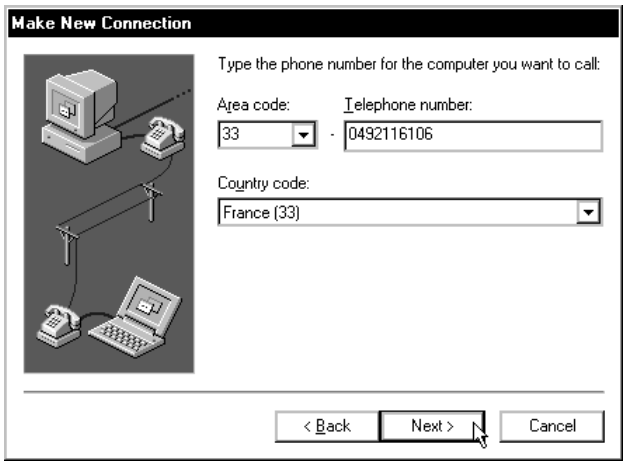
Step 5. Select **Use flow control** and **Hardware (RTS/CTS)** and click **OK**.



Step 6. Select the **Options** tab, select **Display modem status** and click **OK**. The click **Next**.



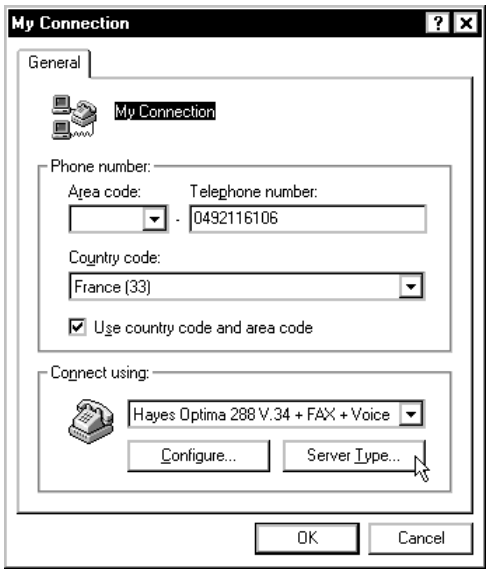
Step 7. Enter the phone number of the service processor modem. Click **Next** then **Finish**.



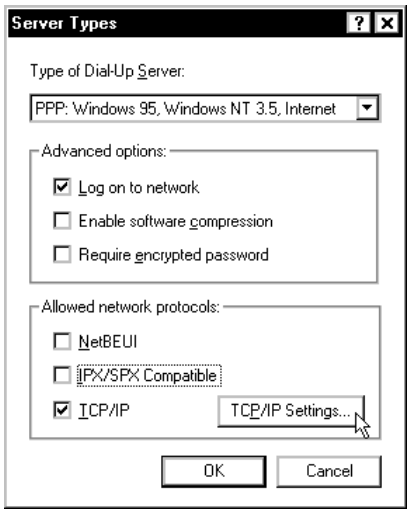
Step 8. The new configuration displays in the **Dial-Up Networking** folder.

Step 9. Click the new configuration file once with the right mouse button and select **Properties**.

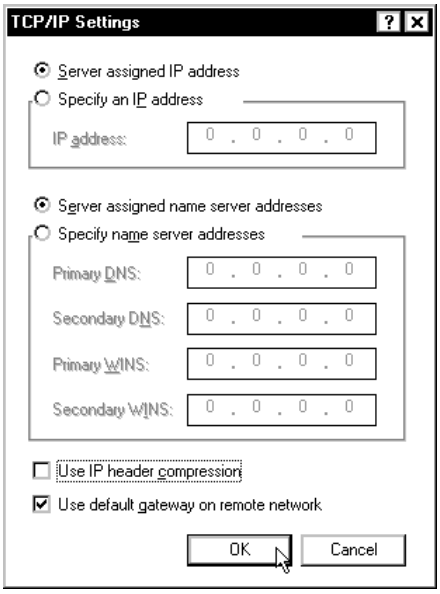
Step 10. Click **Server Type**.



Step 11. In the **Type of Dial-Up Server** list, select **PPP:Windows95, Windows NT, Internet**, select **Log on to network**, disable **NetBEUI** and select **TCP/IP**. Then click the **TCP/IP Settings** button.



Step 12. Select **Server assigned IP address**, **Server assigned name server addresses**, and **Use default gateway on remote network**. Then click **OK** until the **Dial-Up Networking** folder displays.

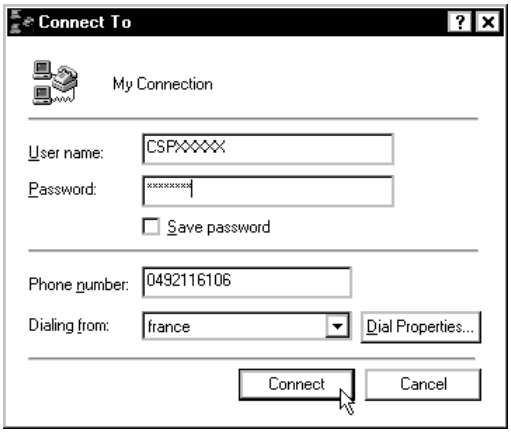


Step 13. Go to “Initiating a Switched Line Connection in Windows 95” on page 11-7.

Initiating a Switched Line Connection in Windows 95

Step 1. Open the **Dial-Up Networking** folder, and double-click your configuration file (see Step 2 on page 11-2).

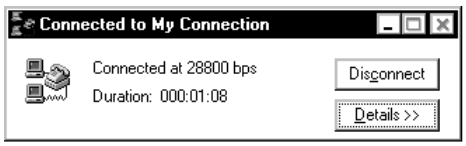
Step 2. Check the entry in the **User name** field and enter a password. Then click **Connect**.



Step 3. A status message displays. Wait until the message indicates a successful connection.

Step 4. Go to “Initiating a Remote Workstation Connection to the Service Processor” on page 11-12.

Step 5. When you are finished with the connection, click **Disconnect**.



Configuring the Remote Workstation in OS/2 Warp

It is assumed that the TCP/IP network component is correctly installed and configured.

This procedure requires a network dialer program.

Network Dialer Program

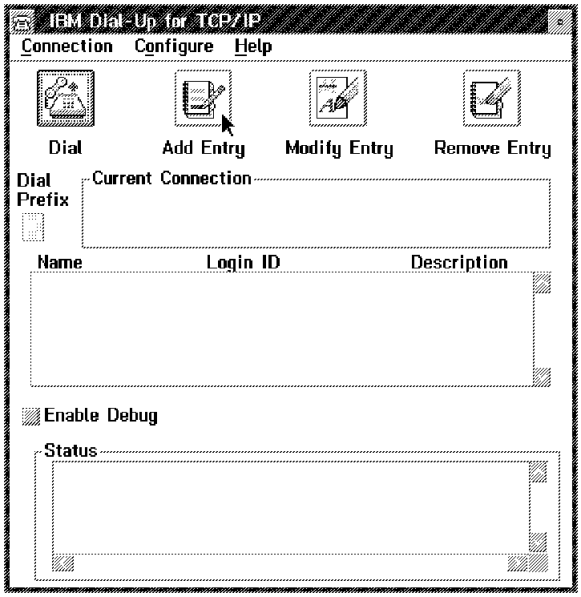
The location of a network dialer program depends on the version of OS/2 you have running on your workstation. For example:

- IBM TCP/IP for OS/2
  - **OS/2 System** folder
  - **TCP/IP** file
  - **Network Dialer** icon.

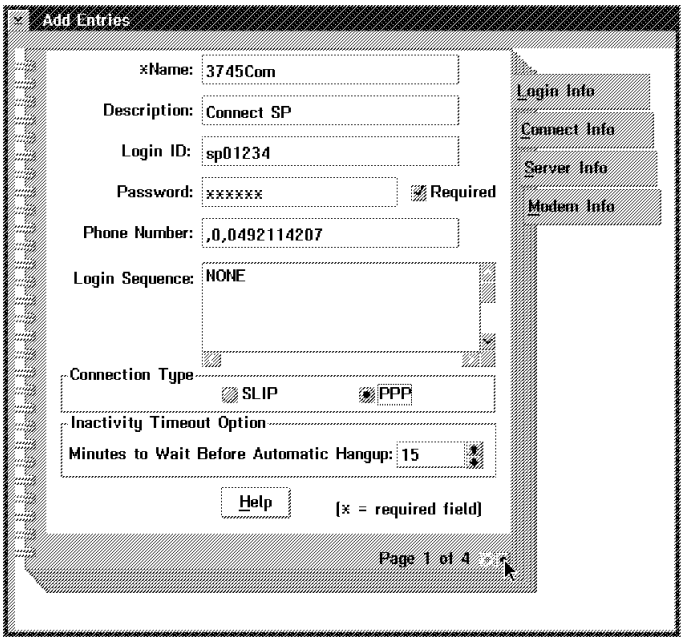
Configuring the Network Dialer Program in OS/2 Warp

Step 1. Double click Network Dialer.

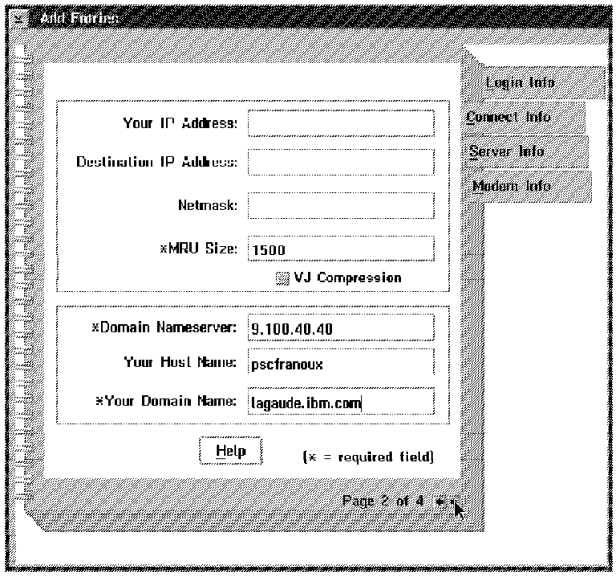
Step 2. In the **IBM Dial-Up for TCP/IP** screen, click **Add Entry**.



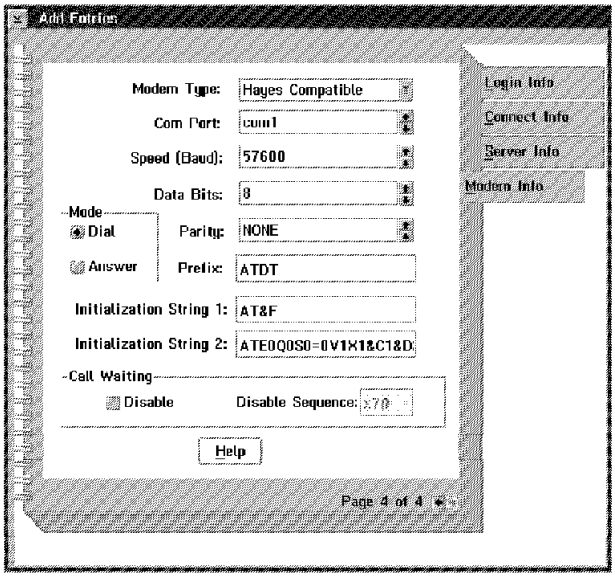
Step 3. Fill in the **Name** and **Description** fields. Enter the name of the service processor in the **Login ID** field. Enter a password in the **Password** field. Enter the phone number of the service processor in the **Phone Number** field. Click the **PPP** button, and then click the arrow button on the lower right to advance to the next page.



Step 4. Make sure the **VJ Compression** box is not checked. Enter the name of your domain server in the **Domain Nameserver** field, and the name of your domain in the **Your Domain Name** field. Then click the arrow button twice on the lower right to advance to the last page.



Step 5. Select a modem type from the **Modem Type** field (if your modem type is not available, select **Hayes Compatible**). Select the COM port of your modem in the **Com Port** field, the DTE port rate in the **Speed (Baud)** field, select 8 in the **Data Bits** field, and **NONE** in the **Parity** field. When you have finished, close the screen.



Step 6. Click **Save**.

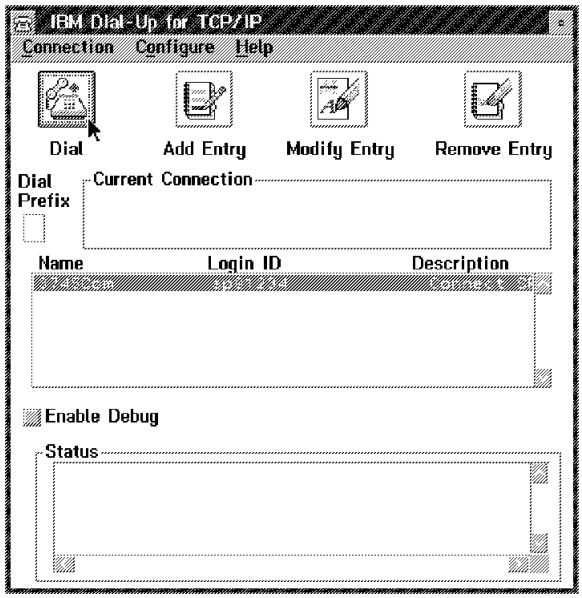
Step 7. Go to “Initiating a Switched Line Connection in OS/2 Warp.”

Initiating a Switched Line Connection in OS/2 Warp

Step 1. On your workstation, double-click 

.

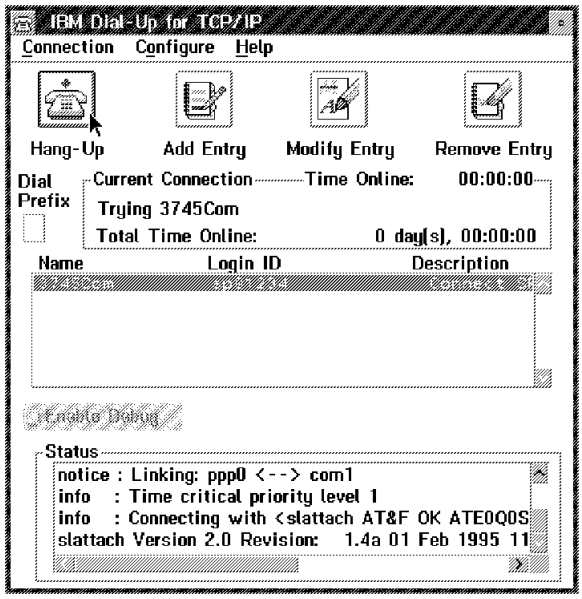
Step 2. In the **IBM Dial-Up for TCP/IP** screen, select the name entry for the controller (see 3 on page 11-9) and click **Dial**. The **Status** field displays connecting information.



Step 3. If you are prompted, enter your password.

Step 4. Go to “Initiating a Remote Workstation Connection to the Service Processor” on page 11-12.

Step 5. When you have finished with the connection, click **Hang-Up**.



Remote Workstation Access Via Service LAN

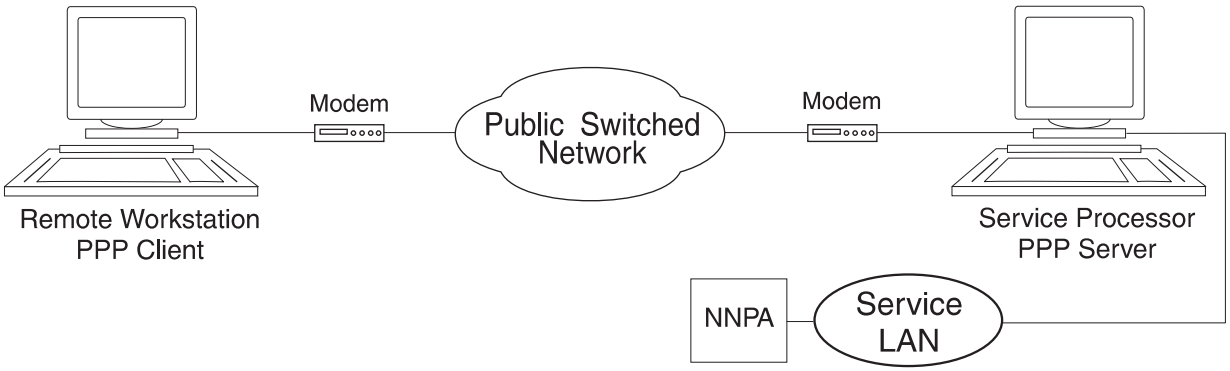


Figure 11-2. LAN-Attached Remote Workstation Using Console for Java

Configuring the Remote Workstation on a LAN

An IP-attached remote workstation can connect to a service processor via a 3746, 3745, Multiaccess Enclosure (MAE), bridge, or router. The connection to the 3746 is made over the TIC3 and the connection for a 3745 is made through a TIC2.

Go to “Initiating a Remote Workstation Connection to the Service Processor.”

Initiating a Remote Workstation Connection to the Service Processor

It is assumed that you have established a connection between a remote workstation and a target service processor either via modem or across the LAN. This section describes how to connect to the target service processor with the web browser on your workstation. The procedure is the same for the following scenarios:

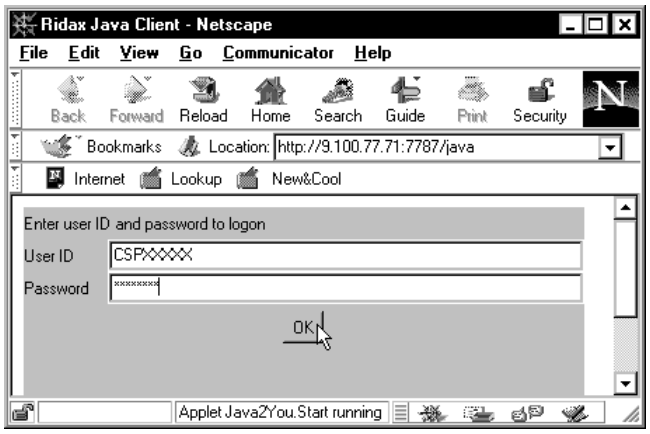
- Console for Java is running as an Applet on a modem-attached workstation.
- Console for Java is running as an Applet on a LAN-attached workstation.

Step 1. Open the web browser on your workstation (in the following procedure, Netscape is used as an example).

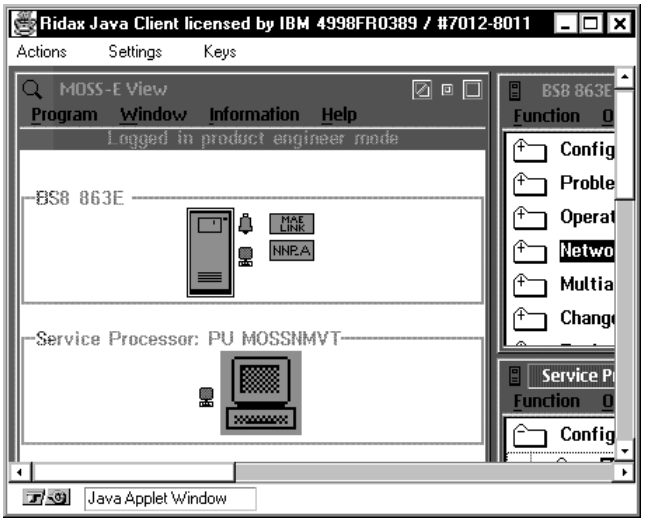
Step 2. Type the URL `http://1.2.3.4:7787/java`

where `1.2.3.4` is the IP address of the service processor and `7787` is the TCP/IP socket. Then press Enter.

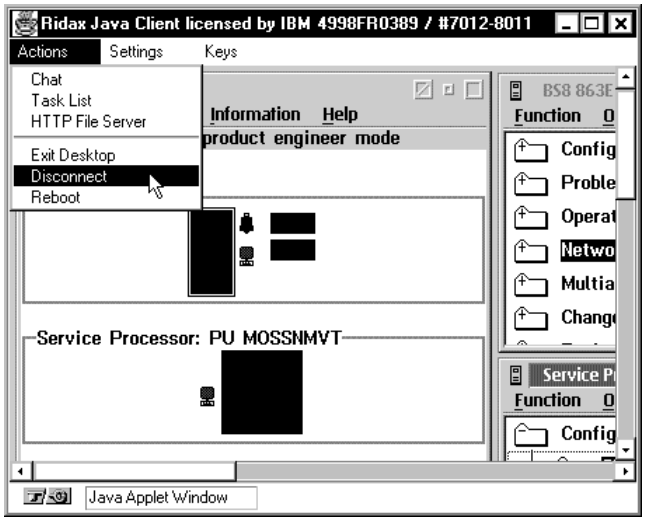
Step 3. In the Java Client screen, enter the Userid and password for the service processor (see Step 8 on page 10-6) and click **OK**.



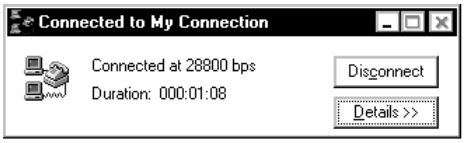
Step 4. The **MOSS-E View** screen displays.



Step 5. To end the Console for Java session, click **Disconnect** from the **Actions** menu.



Step 6. If you are connected via modem, click **Disconnect**.



Initiating a Remote Workstation Connection to the NNP

Console for Java can also connect a remote workstation to an NNP (A or B). Enabling this type of connection requires setting the service processor in MOSS-E. There are two methods for connecting your remote workstation to the NNP (A or B) on the 3746.

- "Connecting to the NNP in MOSS-E"
- "Connecting to the NNP from a Web Browser" on page 11-15.

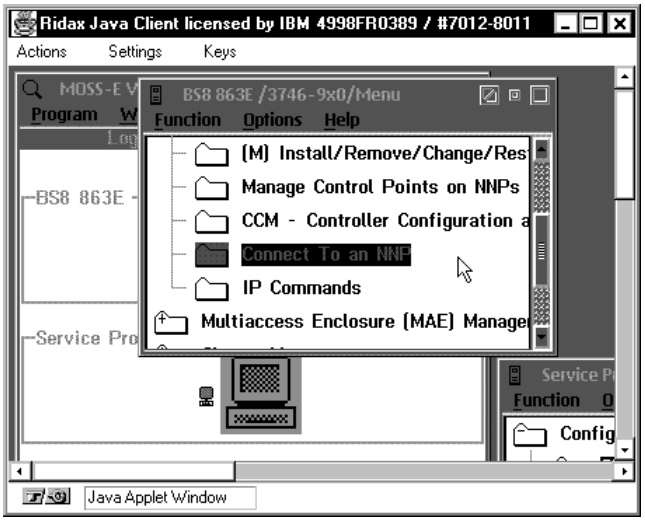
Connecting to the NNP in MOSS-E

Step 1. Follow Steps 1 on page 11-12 to 4 on page 11-13.

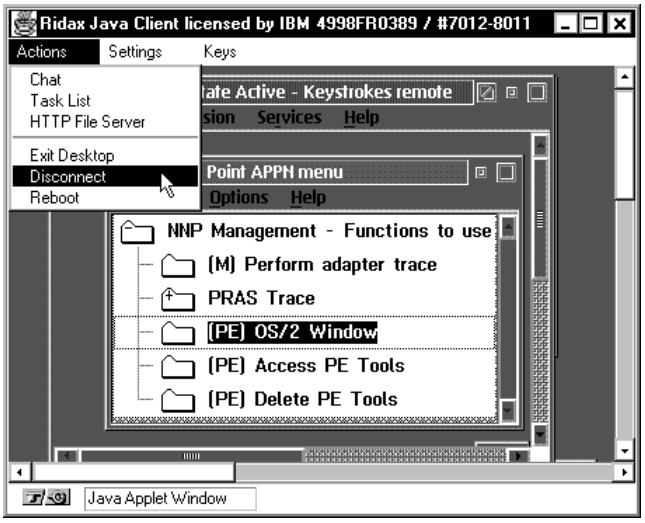
Step 2. In **MOSS-E View**, open the 3746 menu.

Step 3. Click **Network Node Processor (NNP) Management**.

Step 4. Double click **Connect To an NNP**.



Step 5. When you have finished working with the NNP, click **Disconnect** from the **Actions** menu.



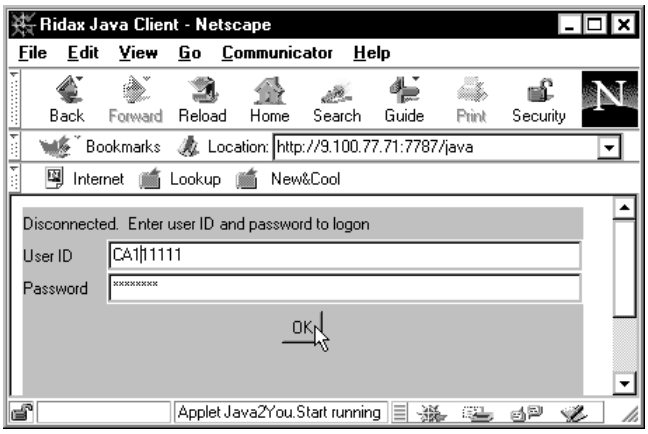
Connecting to the NNP from a Web Browser

Step 1. Open the web browser on your workstation (in the following procedure, Netscape is used as an example).

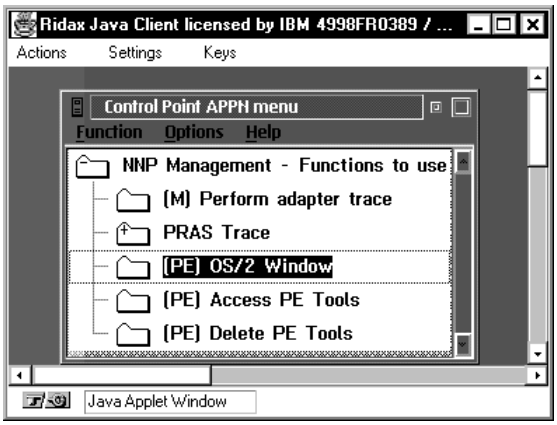
Step 2. Type the URL `http://1.2.3.4:7787/java`

where `1.2.3.4` is the IP address of the NNP and `7787` is the TCP/IP socket. Then press Enter.

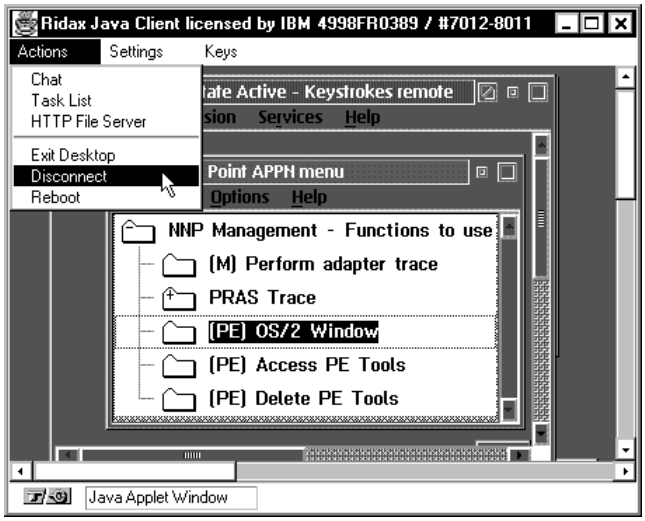
Step 3. In the Java Client screen, enter the Userid and password for the NNP (see Step 8 on page 10-6) and click **OK**.



Step 4. The **Java Client** screen displays with the **Control Point APPN menu**.



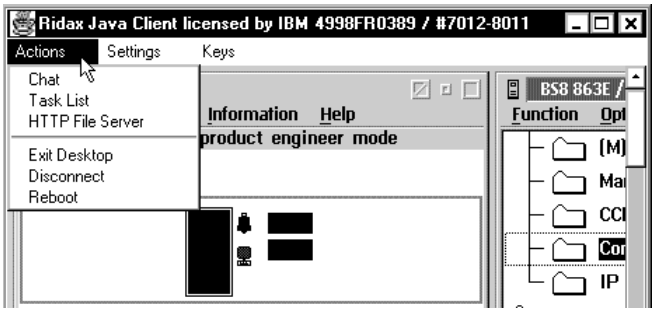
Step 5. To close the session with the NNP, click **Disconnect** from the **Actions** menu.



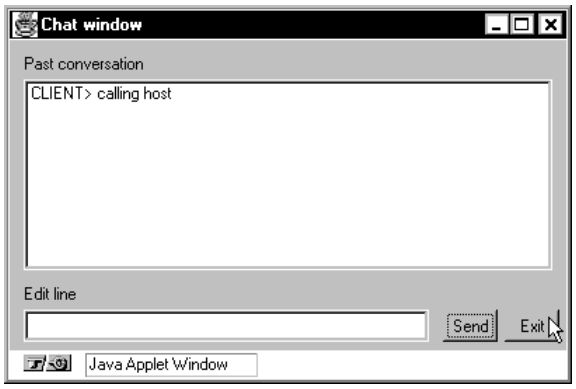
Console for Java Menus

The following text describes some Console for Java menu functions. These are mainly the same if Console for Java is running as an Applet in a web browser or installed as a program on the remote workstation. The only exception is **HTTP File Server** in the Console for Java Applet which displays as **File Manager** in the Console for Java program. For more information, see “Console for Java File Manager” on page 12-5.

Actions Menu



Chat



A **Chat window** opens on the remote workstation and the service processor. Type your message into the **Edit line** field and click **Send**. Your message, prefixed by CLIENT>, appears in the **Past conversation** window. Any response of the operator at the service processor appears in the **Past conversation** window prefixed by HOST>. Click **Exit** to close the window.

Task List

Displays the **Window List** with all the current programs running on the processor.

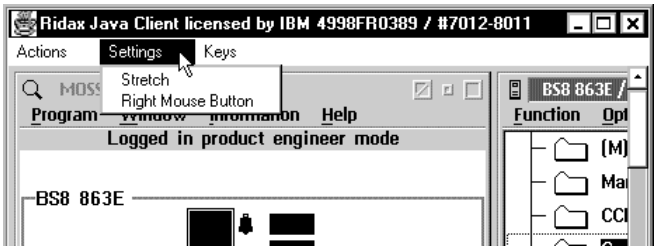
Exit Desktop

Closes Console for Java

Reboot

Reboots the service processor from the remote workstation.

Settings Menu

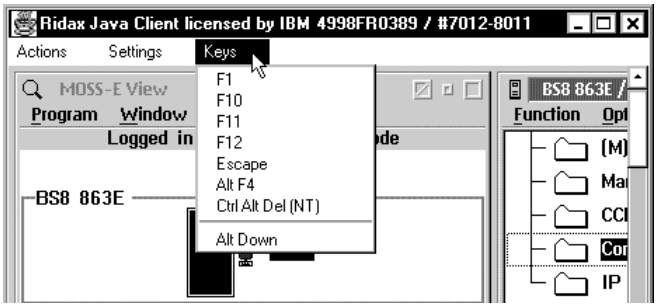


Stretch

Adjusts the desktop displayed of the service processor to the screen size of the remote workstation.

Keys Menu

This menu contains enables the function keys and keyboard short cuts assigned to service processor for use by the remote workstation.



F1

Opens help screens on the service processor.

Chapter 12. Installing Console for Java Program

Console for Java can be run on the remote workstation as an application installed on your hard disk.

Installing Console for Java as a Program on a Remote Workstation

Microcode F12720 installed on the service processor supports running the Console for Java program on your remote workstation. The following procedure describes how to download the Console for Java program file from the service processor to the hard disk of the remote workstation.

Remote Workstation Requirements for Console for Java

To install Console for Java as an application on your workstation, make sure you have the software support as specified in “Overview of Console for Java” on page 10-1.

Procedure for Installing the Console for Java Program

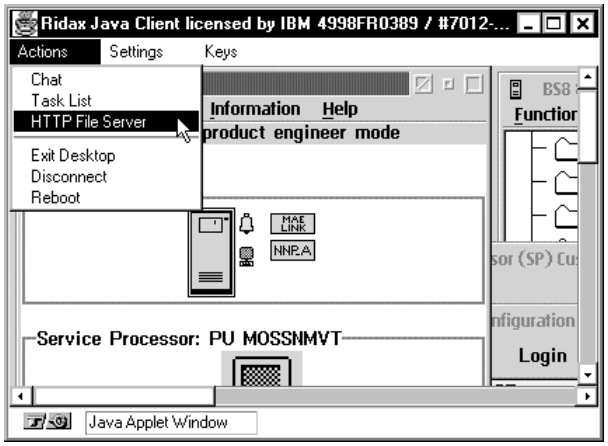
The procedure is as follows:

Step 1. Make sure you have a link established (modem or LAN) between the remote workstation and the service processor (see “Procedure for Configuring the Service Processor” on page 10-2).

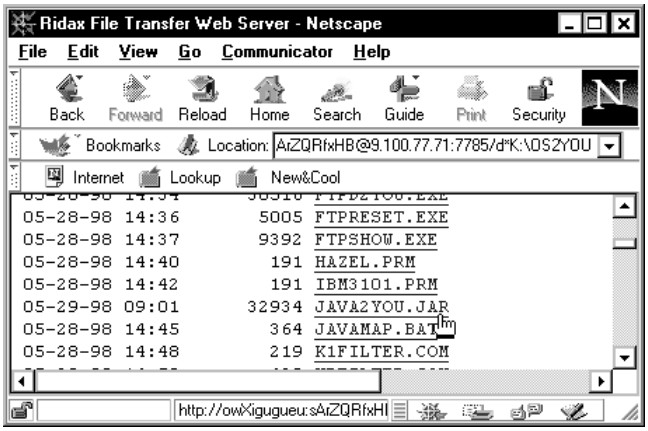
Step 2. Using your web browser (Netscape 2.02, for example) and with the Java 1.1 Applet running, type in the following:

`http://1.2.3.4:7787/java` where `1.2.3.4` is the IP address of the service processor, and `7787` is the TCP/IP socket. Then press Enter.

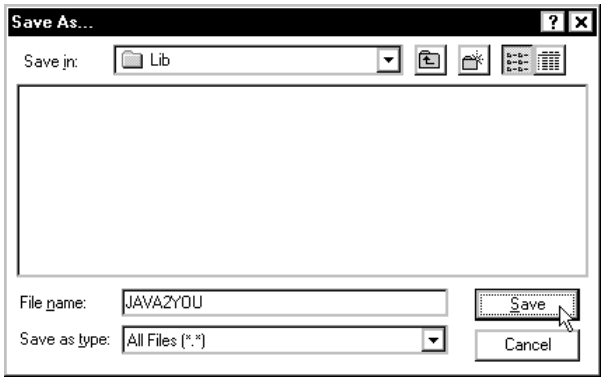
Step 3. In the main Console for Java window, open the **Actions** menu and click **HTTP File Transfer**.



Step 4. In the **File Transfer Web Server** window, select the hard disk of the service processor (drive K), the OS2YOU directory, and click the file `Java2You.jar`.



Step 5. Download the file to the `LIB` directory in the main Java directory on your workstation. In OS/2, this is would be `C:\JAVAOS2\LIB`. (The file size is 32 Kb.)



Step 6. Go to "Remote Workstation Settings for Console for Java."

Remote Workstation Settings for Console for Java

Depending on your workstation platform, you must configure a few workstation settings to enable the Console for Java program.

The following workstation settings apply to Windows 95 and OS/2 Warp.

Important!

These settings are intended as examples only, and you must supply the actual values that apply to your workstation.

Windows 95

Step 1. Create a batch file (.bat) and enter the following:

```
@echo OFF
jre -cp "C:\Program Files\Java\1.1\lib\Java2You.jar" Java2You.Start %1
```

where `%1` represents the IP address of the service processor or the NNP.

Note: Make sure you enter the .jar file name as it appears in the example (uppercase `J` and `Y`).

Step 2. Save and close the new batch file.

OS/2 Warp

Step 1. Create a command file (.CMD) and enter the following:

```
@echo OFF
java Java2You.Start % 1
```

where `%1` represents the IP address of the service processor or NNP.

Step 2. Save and close the new batch file.

Note: Make sure the `Java2You.jar` file is correctly allocated in your CONFIG.SYS file.

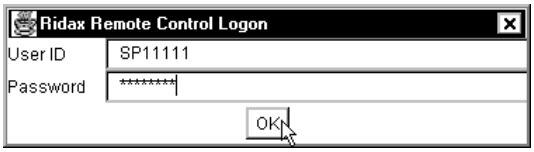
Running the Console for Java Program in Windows

For a connection between the remote workstation and the service processor across a PPP switched line, initiate the modem connection first (see “Initiating a Switched Line Connection in Windows 95” on page 11-7 for Windows, and “Initiating a Switched Line Connection in OS/2 Warp” on page 11-10 for OS/2). Then continue with the procedure below.

To use the Console for Java program for a connection between the remote workstation and the service processor across a LAN, continue with the following procedure.

Step 1. In a DOS window, type in the name of the batch file (`connect` in the following example) followed by the IP address of the service processor (or NNP). Then press Enter.

Step 2. Enter the Userid and password for the service processor and click **OK**.

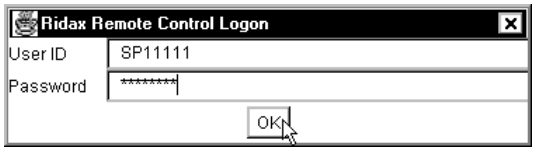


Step 3. To close the session with the service processor, click **Disconnect** from the **Actions** menu.

Running the Console for Java Program in OS/2

Step 1. In an OS/2 window, type in the name of the command file followed by the IP address of the service processor or the NNP. Then press Enter.

Step 2. Enter the Userid and password for the service processor and click **OK**.



Step 3. To close the session with the service processor, click **Disconnect** from the **Actions** menu.

Console for Java File Manager

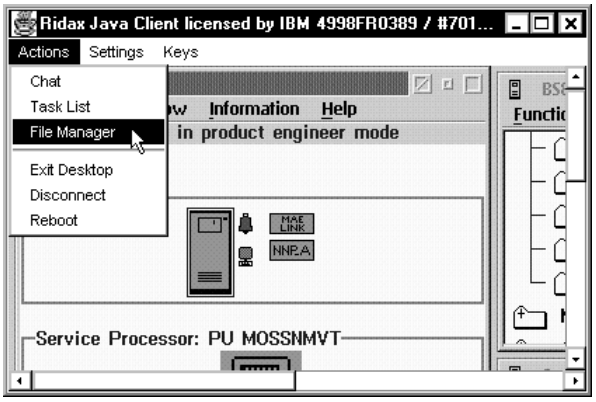
When Console for Java has been installed on your workstation, you can use **File Manager** to upload files from the workstation to the service processor, for example, CCM configuration files.

For more information on CCM configuration files, see the *CCM: Users Guide*, SH11-3081.

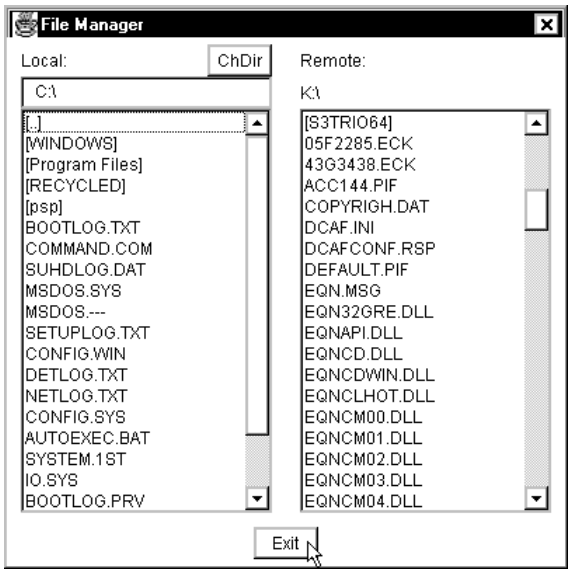
Go to “Uploading Files to the Service Processor” on page 12-6.

Uploading Files to the Service Processor

Step 1. In the **Java Client** window, click **File Manager** from the **Actions** menu.



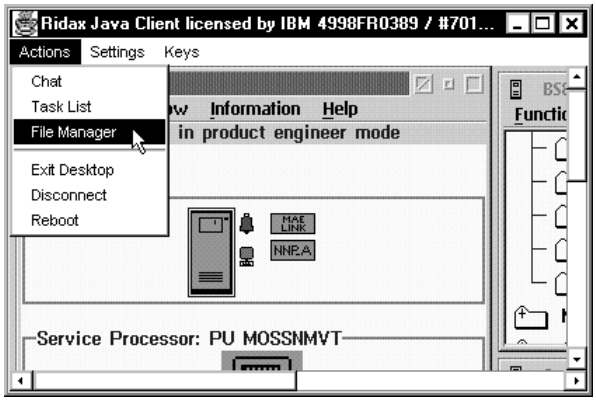
Step 2. Select the directory of the file on your remote workstation. Select the destination for the file in a service processor directory. Locate the directory of the file that you want to upload on the workstation and double-click the file. The file transfer takes place immediately.



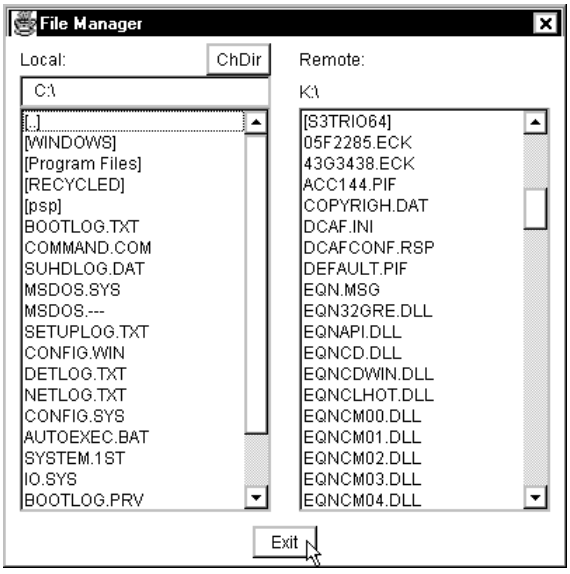
Step 3. When the file upload is successfully completed, click the **Exit** button to close **File Manager**.

Downloading Files from the Service Processor

Step 1. In the **Java Client** window, click **File Manager** from the **Actions** menu.



Step 2. Select the directory of the file on the service processor. Select the destination for the file in the remote workstation directory. Locate the directory of the file that you want to download on the workstation and double-click the file. The file transfer takes place immediately.



Step 3. When the file upload is successfully completed, click the **Exit** button to close **File Manager**.

Appendix A. Setting Up Local, Alternate, or Remote Consoles

This chapter applies to **3745 Models 130** to **610**. It does not apply to **Model A**.

General Information on Consoles

A local console is required, while an alternate or remote console is optional. You can use any of the following:

- An IBM 3151 Display Station (Models 110, 160, 310, 360, 410, or 460) in native mode (recommended) or in IBM 3101 emulation mode.

  Note: Models which do not support block mode cannot be used as consoles for the IBM 3745 Communication Controller.

- An IBM 3153 Display Station in IBM 3151 emulation mode.
- An IBM 3161 ASCII Display Station (Model 11, 12, 21, or 22) in IBM 3101 emulation mode.
- An IBM 3163 ASCII Display Station (Model 11, 12, 21, or 22) in IBM 3101 emulation mode (feature code 8235).
- An IBM PS/2, running OS/2 Extended Edition, Release 1.1 or higher.
- An IBM 3727 Operator Console with adhesive keypad labels (part number 03F7773), or any equipment providing equivalent functions (including cable and keyboard).

Check your console cables (for more information, refer to Appendix C in this manual, and the *Technical News Letter*, GN22-5490 part of *Input/Output Equipment Installation Manual - Physical Planning*, GN22-5490).

If a cable or console does not work correctly, contact your installation coordinator.

Notes:

1. Consoles can be shared by an IBM 7427 Console Switching Unit. A maximum of four IBM 3745 or IBM 3725 Communication Controllers can share a local console. The maximum distance is 7 meters (23 feet). A maximum of six 3745 or 3725 Communication Controllers can share an alternate console. The maximum distance is 122 meters (400 feet).
2. If you set up certain consoles in an established system, you will need to reload MOSS (IML). Refer to the *Advanced Operations Guide*, SA33-0097.

Procedures for Local, Alternate, and Remote Consoles

The procedures in this chapter are the same for local, alternate, or remote consoles unless otherwise indicated.

3151 in Native Mode (Local, Alternate or Remote)

Notes:

1. **Native mode is the recommended mode of operation.**
2. The 3151 Model 110 can only be used in native mode because it does not support 3101 emulation.
3. The MOSS function keys are PF1 through PF8.
4. The line **not Model 110** does not appear on the Model 110 menu.

Setting Up

1. Hold down 

and press 

to display the **Setup** menu.

   Note: If the 3151 is new, the **Setup** menu appears automatically when you power ON.

2. Fill in the fields as follows, using the ↑ and ↓ keys to move between items and the spacebar to select the parameter values:

Machine Mode	IBM3151
Screen	NORMAL
Row and Column	24 X 80
Scroll	JUMP
Auto LF	ON
CRT Saver	OFF
Line Wrap	ON
Forcing Insert	OFF
Tab	FIELD

3. Press Send for the next menu.

4. Open the **Setup** menu and fill in the fields as follows:

Operating Mode	BLOCK
Line Speed (bps)	2400[1]
Word Length (bits)	7
Parity	EVEN
Stop Bit	1
Turnaround Character	DC3
Line Control	PRTS
Break Signal (ms)	500
Send Null Suppress	ON

5. Press Send.

[1] 1200 for remote consoles.

6. Open the Keyboard/Printer Menu and fill in the fields as follows:

   Keyboard

Enter	RETURN (not Model 110)
Return	FIELD
New line	CR
Send	PAGE
Insert character	MODE

   Printer

Line speed	2400
Word length (bits)	7
Parity	EVEN
Stop bit	1
Characters	NATIONAL (not Model 110)

7. Press Enter.
8. Use the arrow keys to highlight **Save data**.
9. Press the spacebar to save the configuration.
10. Hold down Ctrl and press — to return.
11. Go to “Testing a Connection with a Local or Alternate Console” on page A-13 and check the connection to the 3745.

3151 in 3101 Emulation Mode (Local, Alternate, or Remote)

The procedure below is the same for local, alternate, or remote consoles unless otherwise noted.

Important Note: If you have difficulty in using the 3151 remote console for a 3745 Model 210 or 410, contact your IBM service representative to ensure that you have the correct MOSS Console Adapter (MCA) card installed.

Notes:

1. **Native mode is the recommended mode of operation.**
2. The 3151 Model 110 must be used in native mode because it does not support 3101 emulation.
3. The line **not Model 110** does not appear on the Model 110 menu.

Setting Up

1. Hold down Ctrl and press — to display the **Setup** menu.

   Note: If the 3151 is new, Setup displays automatically when you turn the power ON.

2. Fill in the fields as follows, using the ↑ and ↓ keys to move between items and the spacebar to select the parameter values:

Machine Mode	IBM3101
Screen	NORMAL
Row and Column	24 X 80
Scroll	NO
Auto LF	ON
CRT Saver	OFF
Line Wrap	ON
Forcing Insert	OFF
Tab	FIELD

3. Press Send for the next menu.
4. Open the **Setup** menu and enter the following:

Operating Mode	BLOCK
Line Speed (bps)	2400[1]
Word Length (bits)	7
Parity	EVEN
Stop Bit	1
Turnaround Character	DC3
Line Control	PRTS
Break Signal (ms)	500
Send Null Suppress	ON
Pacing	OFF (ON in native mode)

5. Open the Keyboard/Printer Menu and enter the following:

Keyboard

Enter	RETURN (not Model 110)
Return	FIELD
New line	CR
Send	PAGE
Insert character	MODE

Printer

Line speed	2400
Word length (bits)	7
Parity	EVEN
Stop bit	1
Characters	NATIONAL (not Model 110)

6. Press 

.
7. Use the arrow keys to highlight **Save data**.
8. Press the spacebar to save the configuration.
9. Hold down 

and press 

to return.
10. Go to “Testing a Connection with a Local or Alternate Console” on page A-13 and check the connection to the 3745.

3153 in 3151 Emulation Mode (Local, Alternate, or Remote Consoles)

Recommended Settings

Refer to the *Users Guide*, SA33-0356 for information on console settings in the country where you reside.

Starting the Console Configuration

Hold down 

and press  to display the **Setup** menu.

Key F1 (QUICK)

```
Emulation=3151          EIA Baud Rate=2400[1]     EIA Data Format=7/1/E
Enhanced=OFF N/A        AUX Baud Rate=2400        Aux Data Format=7/1/E
Comm Mode=FULL BLOCK    Language=US               Sessions=ONE
Host/Printer=EIA/AUX
```

Key F2 (GENERAL)

```
Emulation=3151          Enhanced=OFF N/A          Auto Wrap=0N
Curs Dir= LEFT TO RIGHT Auto Scroll=ON            Monitor Mode=OFF
Screen Saver=OFF        Bell Vol=06               Warning Bell=ON
Bell Length=140ms       Setup Lang=US             Sessions=ONE
```

Key F3 (DISPLAY)

```
Display Cursor=ON       Cursor=STEADY BLOCK       Viewports=ONE
Pages=01                Page Length=24            Screen Video=NORMAL
Columns=80              Scroll=JUMP               Overscan Borders=ON
Width Change Clear=OFF  Speed=FAST                Refresh Rate=71 HZ
```

Key F4 (KEYBOARD)

```
Language=US             Char Set=NATIONAL         Key Mode=ASCII
Keyclick=OFF            Key Repeat=ON             Key Rate=20 CPS
Margin Bell=OFF         Key Lock=CAPS             Caps Lock=TOGGLE
Num Lock=TOGGLE
```

Key F5 (KEYS)

```
Return Key=field        Enter Key=RETURN          New Line=CR
Send Key=PAGE           Insert Character=MODE     Backspace=BS BS
Desk Acc=ctrl <-        Pound Key=US              Return Key REPEAT=OFF
UDKS=EMUL DEPENDENT
```

Key F6 (PORTS)

```
EIA Baud Rate=2400[1]   EIA Data Format=7/1/E     EIA  Parity Check=off
AUX Baud Rate=2400      AUX Data Format=7/1/E     Aux Parity Check=off
EIA Xmt=Xon-Xoff[2]     EIA Recv= Xon-Xoff(XPC)[2] EIA Xmt Pace= Baud
Aux Xmt=Xon-Xoff        Aux Recv= Xon-Xoff(XPC)   Aux Xmt Pace= Baud
```

Key F7 (HOST)

---

2 `No Protocol` for remote consoles.

3 `HALF BLOCK` for remote consoles.

```
Comm Mode= FULL BLOCK[3]    Local= OFF                Null Suppress=OFF
Break= 500MS                Line Control=PRTS         Disconnect=2 SEC
Recv <CR>=<CR><LF>          Recv <Del>=IGNORE         Send Ack=OFF
Alt Input DATA=ON           Turnaround Char=DC3       Send Null=ON
```

Closing the Console Configuration

1. Hold down Ctrl and press — to display the **Setup** menu.
   - Type `Y` to save the configuration.
   - Type `N` to cancel the new configuration or keep the previous one.
   - Type `C` to review the configuration.

3161 or 3163 (Local, Alternate, or Remote)

1. Hold down Ctrl and press — .
2. Fill in the fields as follows, using the ↑ and ↓ keys to move between items and the spacebar to select the parameter values:

```
Machine Mode                IBM3101
Operating Mode              BLOCK
Interface                   RS232C
Line Control                PRTS
Line Speed (bps)            2400[1]
Parity                      EVEN
Turnaround Character        DC3
Stop Bit                    1[4]
Word Length (bits)          7 (3161 only)
Response Delay              100 (3161 only)
Break Signal (ms)           500 (3161 only)
```

3. Press Send.
4. Press Select.
5. Use the spacebar to enter as follows:

```
Scroll=OFF   Return=CR   Line Wrap=ON
Autolf=ON    Send=PAGE   Null Supp=ON
```

6. Press Select to return.
7. Go to “Testing a Connection with a Local or Alternate Console” on page A-13 for checking the connection to the 3745.

IBM PS/2 (Local, Alternate, or Remote)

Note: To complete this procedure successfully, you must be running OS/2 Extended Edition, Version 1.1 or higher, at SYSLEVEL 03030 or higher. If you are not sure of the level, refer to Appendix A.

[4] 2 for remote consoles.

Use the following procedure to configure a PS/2 as a local, alternate console, or remote console.

1. Open an OS/2 screen.
2. Type `CD \CMLIB`.
3. At the prompt, type `COPY ACSCFG.CFG MOSSLOC.CFG.` (`MOSSREMM` for remote consoles)
4. Type `CD\...`
5. Add the following line to the CONFIG.SYS file:

   ```
   DEVICE=C:\CMLIB\ASYNCDDB.SYS COM1
   ```

   Notes:

   a. If you are using a PC/AT* or a PC/XT* equipped with an 80286 microprocessor, type `ASYNCDDA.SYS` instead of `ASYNCDDB.SYS`.

   b. Open the CONFIG.SYS file and search for the line:

      ```
      DEVICE=C:\OS2\COMxx.SYS (wherexx = 01 ,02, or 03)
      ```

      If you find it, insert this line before it:

      ```
      ASYNCDDB/A
      ```

6. On your desktop, open Communications Manager program (this takes ten seconds to load).
7. When the Communications Manager program menu appears, select **Advanced**.
8. Select **Configuration**.
9. Type `MOSSLOC` (`MOSSREM` for remote consoles), then press Enter. The Communications Configuration menu displays.
10. Select **Workstation profile**.
11. Select **Change** and customize as follows:

    ```
    Error log file name                 ERROR.DAT (for example)
    Error log size                      16 (for example)
    Error log overflow option           WRAP
    Message log file name               MESSAGE.DAT (for example)
    Message log size                    500 (for example)
    Message log overflow option         WRAP
    Enable auto-start options           YES
    ```

12. Press Enter to open the next screen, and continue with the Auto-Start Options:

    - ACDI service
    - ► ASCII terminal emulation
    - 3270 terminal emulation (DFT)
    - 3270 terminal emulation (SDLC)

Display this screen first:

- Communication Manager main menu
- ► ASCII Terminal Emulation
- 3270 Terminal Emulation

13. Press Enter. The message **The profile has been saved** displays.
14. Select **Asynchronous feature profiles**.
15. Select **Asynchronous communication port profile**.
16. Select **Create** and enter the following:

Country code	xxx

    (where xxx is your country code)

Profile name	COM1

17. Press **Enter**, then select **Other modem or device**.
18. Press **Enter** and in the following window, select **NON-SWITCHED**.
19. Press Enter. The message **The profile has been saved** displays.
20. Select **ASCII terminal emulation profiles** twice.
21. Select **Create**. Enter the profile name M6 and a new profile name **MOSSL** (**MOSSR** for remote consoles).
22. Press Enter.
23. Customize the profile as follows:

Communication port name	COM1

    (same as port profile name)

Emulation mode	IBM 3101
Line speed	2400[1]
Bits per character	7
Parity type	EVEN
Number of stop bits	1[4]
Local display	NO
Auto return	YES
Enter key	CR/LF
Line ending control	YES

24. Press F8 and enter the following:

Turnaround character	DC3
Scrolling	NO
Mode	BLOCK
Null suppression	YES

25. Press Enter and modify the following.

```
Type of connection                    DIRECT
Automatic XON/XOFF flow control       YES
Minimum time for break signal         500
Enhanced keyboard profile name        ACSAENUS *
At keyboard profile name              ACSAATUS *
Transfer to IBM protocol converter    NO
Change parameters for ASCII text files NO
Data capture file name                CAPTURE.XXX (for example)
Auto-start data capture               NO
Auto-activate data filter             YES
```

    * These are the default U.S.A. profiles. For other countries, use F4 to select the relevant profile. For more information, see Appendix A.

26. Press Enter.
27. Select **Default ASCII terminal emulation profile name**.
28. Type MOSSL (MOSSR for remote consoles) and press Enter. The message **The profile has been saved** displays.
29. Press **Esc** twice to display the Communications Configuration menu.
30. Select **Verify**, then **Run Verify**. The **Verified** message displays. If the message does not display, check that you have entered the data correctly.

    Press Enter.
31. Select **Exit**, and **Exit communication configuration**.
32. Select **Exit**, and **Exit Communication Manager**, and then **Yes**.
33. When the **Display Feature Status** screen disappears, select **F3=Exit**.
34. The Start Programs menu displays.
35. Select **OS/2 full-screen command prompt**.
36. Use the system editor to create a STARTUP.CMD file with the following lines:

```
@ECHO OFF
CD\CMLIB
START "COMM.MGR MOSSL" (or MOSSR for remote consoles)
/FS /N DMPC ACS.CNF /A:ACS ACS.EXE
EXIT
```

37. Shutdown and restart the console.
38. Go to “Testing a Connection with a Local or Alternate Console” on page A-13 and check the connection to the 3745.

MOSS Local or Alternate Console Emulation with CM/2 and Softerm

For a description of how to set up a 3101 terminal emulator, using CM/2 and Softerm as a connections to 3745 MOSS, see “MOSS Remote Console Emulation with CM/2 and Softerm” on page A-10.

Attention

The Baud Rate for a local or alternate console is 2400 bps.

MOSS Remote Console Emulation with CM/2 and Softerm

The following is the setup procedure for a 3101 terminal emulator connection with a 3745 MOSS, using CM/2 and Softerm. To install Softerm, use the following procedure:

Step 1. Open an OS/2 window or screen.
Step 2. Insert the Softerm diskette into drive A.
Step 3. Type `a:` and press Enter.
Step 4. Type `cd\` and press Enter.
Step 5. Type `a:\install` and press Enter.
Step 6. Wait for the installation to complete. A new **Custom Plus** icon displays.

Note: In the following procedure, window displays are indicated by an ⇒ followed by the title of the window.

Starting Custom Plus

Step 1. To start, click the **Custom Plus** icon twice.
⇒ window **Custom Plus - Icon View**

Step 2. Click twice on **Custom Plus** icon.
⇒ window **Softerm Session Manager - CUSTOM.MDB**

This window lists several predefined sessions.

Defining a New Session

Step 1. Click **Session** and then **Add**.
⇒ window **Add Session - Untitled**

Step 2. Click **Setup Profiles**.
⇒ window **Setup Profiles**

There are two setup profiles, Terminal Emulation and Connection Path.

See the following procedures to setup the Terminal Emulation profile, and the Connection Path profile.

Defining the Terminal Emulation Profile

Step 1. Click **Terminal**.
⇒ window **Terminal Emulation Profile Module - CUSTOM.MDB**

Step 2. Click **Add**.
⇒ window **Terminal Emulation**

Step 3. In the terminal types list, select **3101-2X** and click **OK**.
⇒ window **Terminal Emulation Settings - Untitled**

Step 4. In the **Comment** entry field, type: `3101-2X Settings for MOSS Console`.

For the keyboard profile:

a. Click **Setup**.
   ⇒ window **Keyboard Profile Module - CUSTOM.MDB**

b. Click **Add**.
   ⇒ window **Add keyboard**

c. In the keyboard type list, select **AT 84 key**, or **101 Enhanced** or **102 Enhanced** depending on your keyboard.

d. In the terminal keyboard type list, select **IBM 3101-2X**.

e. In the nationality list, select the country where you reside.

f. Click **OK**.
   ⇒ window **Keyboard Settings - Untitled**

   The default keyboard mapping is displayed. The Control, Alt and Function keys are used for 3101 functions.

   Note: Function keys F1 to F10 correspond to the same keys, and F11 to F20 correspond to Shift-F1 through Shift-F10.

   If you want to change the keyboard mapping, use the following procedure:

   1) On window **Keyboard Settings - Untitled**, click **Change**.
      ⇒ window **Keyboard Remap**

   2) When the keyboard map displays on the screen, click a key to see the corresponding 3101 definition. For example, if you want to remap the **Send** key to **Enter** instead of the default **Control-F1**, click the **Enter** key on the map, and then click **Open Base**.
      ⇒ window **Open/Edit Key**

   3) In the **Key contents** entry field, delete `Return` and type `Send`.

   4) Click **OK**. You can remap any other key(s).

g. When you have finished, click **Remap**.
   ⇒ window **Keyboard Settings - Untitled**

h. Click **Save as** to save the keyboard profile.
   ⇒ window **Save Keyboard - CUSTOM.MDB**

i. Enter the keyboard profile name, for example, `3101 keyboard`.

j. Click **Save**.
   ⇒ window **Keyboard Profile Module - CUSTOM.MDB**

k. Click **Close**.
   ⇒ window **Terminal Emulation Profile Module - CUSTOM.MDB**

Step 5. Customize the 3101 terminal settings, and change the following parameters:

- Operating mode,
- Line Turn Around Character.

All the other parameters keep their default values.

Step 6. In **Terminal Emulation Settings** list, select the parameter and click **Change**:

- For Operating mode, click **Block** and then **OK**.
- For Line Turn Around Character, click **Xoff($13)** and **OK**.

Step 7. Click **Save as**.
⇒ window **Save Terminal Emulation - CUSTOM.MDB**

Step 8. Enter the terminal emulation profile name, for example, `3101 emulation`.

Step 9. Click **Save**.
⇒ window **Terminal Emulation Profile Module - CUSTOM.MDB**

Step 10. Click **Close**.

Defining Connection Path Profile

Click **Setup Profiles**.
⇒ window **Setup Profiles**

Step 1. Click **Connection**.
⇒ window **Connection Path Profile Module - CUSTOM.MDB**

Step 2. Click **Add** twice.
⇒ window **Add Connection Path**

Step 3. Enter `Standard COM` for the communication interface and click **OK**.
⇒ window **Connection Path Settings - Untitled**

- COM1 (default setting) for the COM port
- Select **(None)** for the modem profile name.

  Note: You can add a customized profile with modem-supported features, such as auto-dial and auto-answer.

- Connection Path Settings:
- Select an item in the list and click **Change** then **OK**.
- Communications parameters:
  - Baud rate = 1200
  - Data bits = 7
  - Stop bits = 1
  - Parity = Even
- Flow Control: None (default setting).

Step 4. Click **Save as**.
⇒ window **Save Connection Path - CUSTOM.MDB**

Step 5. Enter the connection path profile name, for example `connection`.

Step 6. Click **Save**.
⇒ window **Connection Path Profile Module - CUSTOM.MDB**

Step 7. Click **Close**.

Ending Definition of a New Session

Step 1. In the ⇒ window **Add Session - Untitled**, click **Add**.
⇒ window **Admittance data**

Step 2. Click **Save as**.
⇒ window **Save Session**

Step 3. Enter the session name, for example `MOSS Console`.

Step 4. Click **Save**.
⇒ window **Softerm Session Manager - CUSTOM.MDB**

Notes:

This window includes a **MOSS Console** session. You can start the session by double-clicking it. If you want to remotely connect to MOSS, attach a modem (1200 or 2400 bauds) to the COM1 port of your PS/2, and establish a connection to the 3745 modem.

Testing a Connection with a Local or Alternate Console

1. Turn on the operator console.
2. A **CA INTERFACE DISPLAY** screen similar to the following one should be displayed (for the alternate console, wait 25 seconds):

```
-------------------------------- mm/dd/yy/ hh : mm
CA INTERFACE DISPLAY

INTERFACE  CHANGE    E/D    INTERFACE     HOST OR    CHANNEL    NSC
  NUMBER   E/D REQ  REQUEST STATUS SWITCH UNIT ADDRESS ADDRESS
   1A                -         -
   2A                -         -
   3A                -         -
   4A                -         -
   5A        ==>     E          ENABLED                          40
   5B        ==>     D          DISABLED                         41
   7A        ==>     D          DISABLED                         42
   8A                -         -
- TYPE E OR D TO CHANGE THE ENABLE/DISABLE REQUEST, THEN PRESS SEND
               F4: MOSS FUNCTIONS        F5: UPDATE
```

3. If this screen displays, the console setup was successful.
4. If the screen is not displayed, check that the console cables are connected, and that power is on, then try again to connect.

   Other possible causes of a faulty console setup are as follows:

   - The console is set to 1200 bps instead of 2400.
   - The cable adapter P/N 54F0490 is plugged wrongly. Check that the arrow on the adapter points toward the console.
   - The 3151 console is set up in both native and emulation modes.

If the problem continues, refer to the *Problem Determination Guide*, SA33-0096.

Note: You can also diagnose problems by using the console link test, as described in the *Problem Determination Guide*.

Testing the Modem Connection to a Remote Console

1. Make sure that the modem associated with your remote console is powered ON and in voice mode.
2. Turn on the console.
3. Dial the telephone number of the 3745 with your modem.

   You will hear the **ringback** tone. When you hear the **answer** tone (steady tone), go to the next Step.

If you do not hear the answer tone, the local console could be logged on. Try again later.

4. Set the modem associated with your remote console to data mode.
5. Hang up the handset, and the following screen displays:

```
3745 MICROCODE (C) COPYRIGHT IBM CORP. 1988

MAXIMUM ADAPTER CONFIGURATION:  CHANNEL ADAPTERS 5,6,7,8
                               LINE    ADAPTERS 1,2,3,9,10,11,12

                     ENTER PASSWORD ==>


                                F4: CHANNEL INTERFACE DISPLAY
```

6. If this screen is displayed, setup was successful.
7. If the screen is not displayed, check that the console cables are connected and that power is ON to both console and modem, then try to connect again.

   Other possible causes of a faulty console setup are as follows:

   - The console is set to 2400 bps instead of 1200.
   - The 3151 console is set in both native and emulation modes.

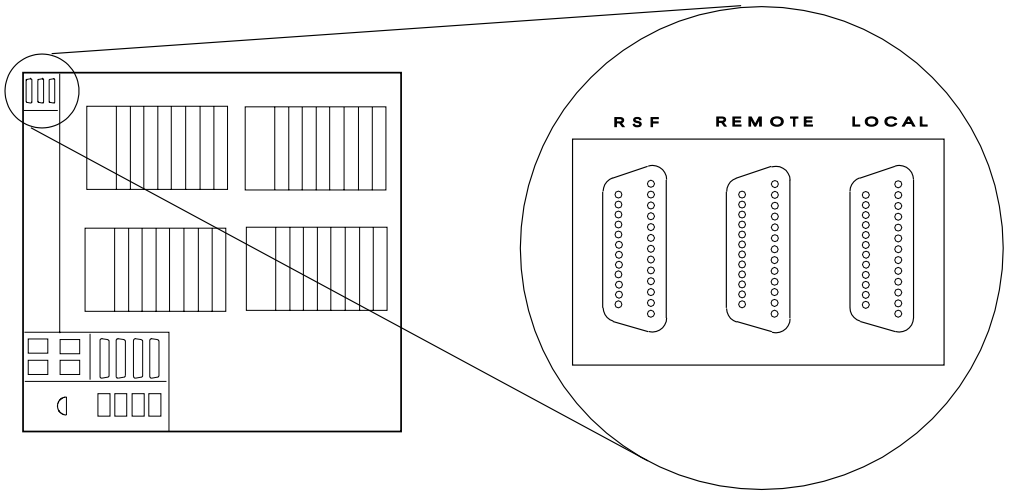
If the problem still persists, refer to the *Problem Determination Guide*, SA33-0096.

Note: You can also diagnose problems by using the console link test, described in the *Problem Determination Guide*.

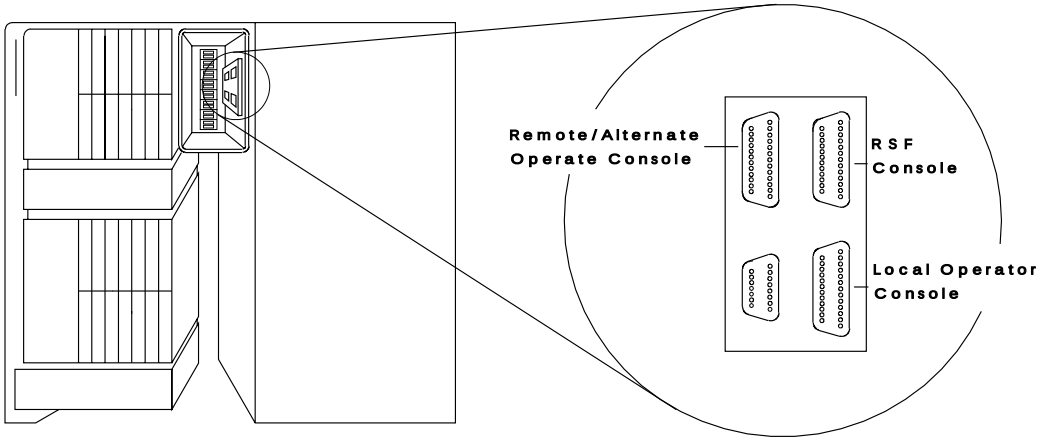
Location of 3745 Console Connectors

This section applies to **3745 Models 130** to **610.**

3745 Communication Controller Models 130, 150, 160, and 170



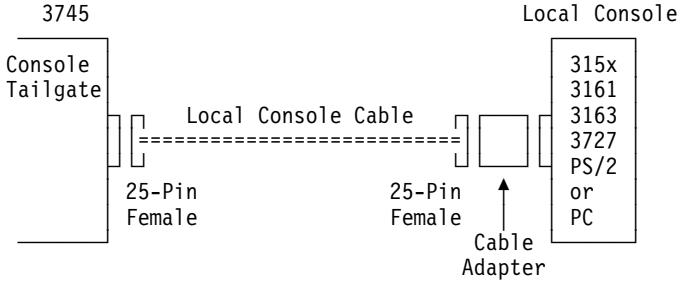
3745 Communication Controller Models 210, 310, 410, and 610



Console and RSF Interface Cables

This section applies to **3745 Models 130** to **610.**

Cable from the 3745 to a Local Console



Local Console Cable Assembly

This cable assembly is for a 3745-to-7427 with three adapters to connect with 31xx, 3727, and PS/2 or PC consoles (see “Cable Adapters for Local/Alternate Console” on page A-16).

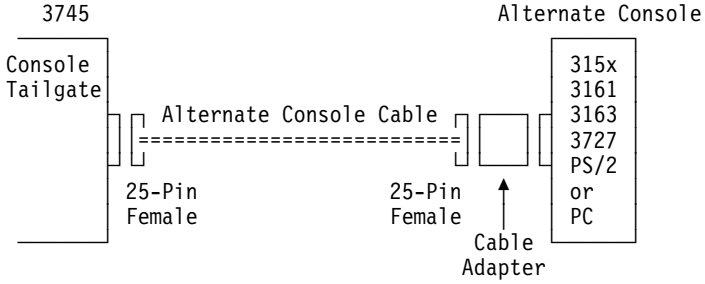
World Trade Only

3745 Model	Cable Type	Length, m (ft)	Cable Group	Assembly PN	Cable PN
130/150/160/170	Fixed Length	7 m (23)	Shipped	26F1794	03F4948
210/310/410/610	Fixed Length	7 m (23)	Shipped	26F1792	03F4487

U.S.A. Only

3745 Model	Cable Type	Length, m (ft)	Cable Group	Assembly PN	Cable PN
130/150/160/170	Fixed Length	7 m (23)	Shipped	76F8600	76F8639
210/310/410/610	Fixed Length	7 m (23)	Shipped	76F8607	76F8640

Cable from the 3745 to an Alternate Console

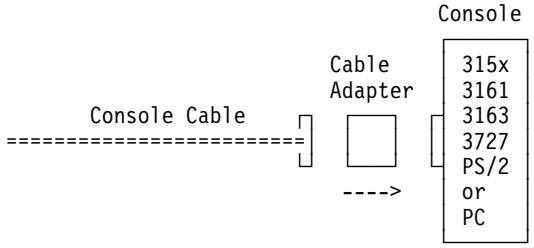


Alternate Console Cable Assembly

This cable assembly is a variable length with three adapters to connect with 31xx, 3727, and PS/2 or PC consoles (see “Cable Adapters for Local/Alternate Console”).

3745 Model	Cable Type	Length, m (ft)	Cable Group	Assembly PN	Cable PN
130/150/160/170	Variable Length	Up to 35 m (115) Up to 122 m (400)	6147 NA	26F1799 26F1799	03F5026 03F5026
210/310/410/610	Variable Length	Up to 35 m (115) Up to 122 m (400)	5826 NA	34F1262 34F1262	65X8984 65X8984

Cable Adapters for Local/Alternate Console



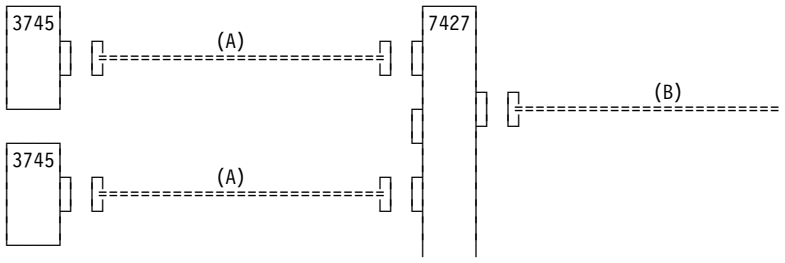
Notes:

For console 3727, use Cable Adapter P/N 54F0488. For console PS/2 or PC, use Cable Adapter P/N 54F0490. For console 31xx, use Cable Adapter P/N 54F0489.

Warning: When you install the 31xx adapter (P/N 54F0489), ensure that the arrow on the side of the adapter points towards the console. If the arrow is reversed, the console will not work.

Console Connection through the IBM 7427 Console Switching Unit

The 7427 can switch one console (3151/3153/3161/3163/3727, PS/2, or PC) to as many as four 3745s for a local console, or up to six 3745s for an alternate console.



Cable from the 3745 to the 7427 Switching Unit (A)

Cable Assembly for Local Console

Refer to “Local Console Cable Assembly” on page A-15. The cable is used without any console adapter.

Cable Assembly for Alternate Console

Refer to “Alternate Console Cable Assembly” on page A-16. The cable is used without any console adapter.

Cable from the 7427 to a 31xx, PS/2, or PC Console (B)

Cable Assembly for 31xx Console

3745 Model	Cable Type	Length, m (ft)	Cable Group	Cable PN
All Models	Fixed Length	1 (3)	5828	65X8985

Cable Assembly for PS/2 or PC Console

3745 Model	Cable Type	Length, m (ft)	Cable Group	Cable PN
All Models	Fixed Length	2 (6.5)	8148	26F0317

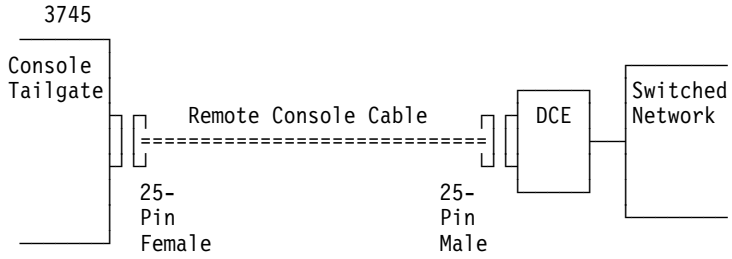
Cable from the 7427 to a 3727 Console (B)

Cable Assembly

The cable for the 3727 console is delivered with the 7427 switching unit.

3745 Model	Cable Type	Length, m (ft)	Cable Group	Cable PN
All Models	Fixed Length	1 (3)	NA	6081308

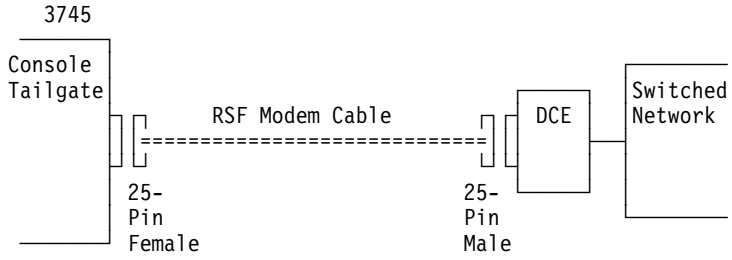
Remote Console Cable



Cable to Modem for Remote Console

3745 Model	Cable Type	Length, m (ft)	Cable Group	Cable PN
130/150/160/170	Variable Length	Up to 13.5 m (45) Up to 122 m (400)	6148 NA	03F5027 03F5028
210/310/410/610	Variable Length	Up to 13.5 m (45) Up to 122 m (400)	6153 NA	03F4404 03F4405

Cable to Modem for RSF



RSF Modem Cable

World Trade Only

3745 Model	Cable Type	Length, m (ft)	Cable Group	Cable PN
130/150/160/170	Fixed Length	13.5 m (45)	Shipped	03F4945
210/310/410/610	Fixed Length	13.5 m (45)	Shipped	65X8920

U.S.A. Only

3745 Model	Cable Type	Length, m (ft)	Cable Group	Cable PN
130/150/160/170	Fixed Length	13.5 m (45)	Shipped	76F8604
210/310/410/610	Fixed Length	13.5 m (45)	Shipped	76F8611

Appendix B. Modem Setup

Modems for 3745 Models 130 to 160

The following is a list of modems that can be set up to operate between the remote console and the 3745:

In the U.S.A.:

- IBM 5841 Modem.
- IBM 5842 Modem.

In the U.S.A., Canada, and Japan:

- IBM 5853 Modem (set to half speed).
- Equivalent compatible with Bell 212 A or ITU-T V.22 (1200 bps).

In other countries:

- Modems compatible with ITU-T V.22 alternative B (1200 bps).

For information about setting up RSF modems, refer to “RSF Modems” on page B-7.

Setting Up

For the modem to be compatible between the remote console and the 3745, refer to the modem's documentation and set the following modem characteristics:

- Switched line connection
- Duplex operation
- Asynchronous operation
- 1200 bps speed
- 3745 modem set to auto-answer
- Remote console modem set to manual dialing.

Notes:

1. Review the modem documentation to ensure compatibility with the 3745. In particular, check the following:
   - Error Checking Link (ECL) is disabled.
   - If the modem has a 'Test Mode', turn it off at the 3745 end.
   - If the modem is programmable, set the control of the Data Set Ready (DSR) signal to normal, so that it does not get raised by the Data Terminal Ready (DTR).
2. Some IBM PC modems disconnect from the switched network when the carrier signal drops. To prevent this, set the modem at the PC end to RTS Permanent. For more information, refer to your modem documentation.

Switch Settings for IBM Modems 5841, 5842, and 5853

IBM 5841 Modem

Set the modem switches of the remote console as follows:

1. Set back panel DIP switches SW7 and 8 DOWN, all others UP.
2. Set all front panel switches OUT.

Set the modem switches of the 3745 as follows:

1. Set back panel DIP switches SW7 and 8 DOWN, all others UP.
2. Set all front panel switches OUT.

IBM 5842 Modem

Set the switches at the remote console site as follows:

1. Set back panel DIP switches SW7 and 8 DOWN, all others UP.
2. Set front panel switches FS IN, all others OUT.

Set the switches at the 3745 site as follows:

1. Set back panel DIP switches SW7 and 8 DOWN, all others UP.
2. Set front panel switches FS IN, all others OUT.

IBM 5853 Modem

Set the switches at the 3745 site as follows:

1. Set back panel DIP switches to UP.
2. Set front panel switches FS IN, all others OUT.

Set the switches at the remote console site as follows:

1. Set back panel DIP switches to UP.
2. Set front panel switches FS IN, all others OUT.

Note: Before you set any modem configurations, make sure that both modems have been initialized and then do the following:

1. Push in all the front panel switches.
2. Turn power ON and wait five seconds.
3. Turn power OFF.
4. Set the front panel switches as described above.
5. Turn power ON again.

Modems for the 3746

The procedures in this section explain how to manipulate the IBM modems recommended for DCAF.

Note: The Hayes modem does not need to be set manually.

Setting the IBM 7855 Modem

1. Press both the ← and → buttons on the front panel of the modem. The modem displays the message '<Exit Enter>'.
2. Press the → button. If the modem displays View Only, go to Step 3. If the modem displays 'Password.....■■■■', use the → and the ↑ buttons to change the display to 'Password....B293' by changing one character at a time. Press the → button one more time, and then check the display again to make sure it shows 'View Only'.
3. Press and release the ↑ or ↓ button as needed to change the display to 'First Setup'.
4. Press the → button **once**, press and release the ↑ or ↓ button to change the display to 'Reset to Factory'.
5. Press the ← button. The lights on the front panel flash briefly.
6. Set the modem speed to 12000 bps by doing the following:
   a. Press both the ← and → buttons. The modem displays: '<Exit Enter>'.
   b. Press and release the → button. The modem displays: 'View Only'.
   c. Press the ↓ button **twice**. The modem displays: 'Quick Customize'.
   d. Press the → button. The modem displays: 'DTE interface'.
   e. Press the ↓ button **twice**. The modem displays: 'PSN Telco speed'.
   f. Press the → button. The modem displays: 'PSN Bps 9600'.
   g. Press the ↓ button. The modem displays: 'PSN Bps 12 000'.
   h. Press the ← button **6 times**. The modem displays: 'SYNC INT 12 000'.
7. Turn the modem off.

Setting and Saving the Target Service Processor Phone Number

1. Press both the ← and → buttons on the front panel of the modem. The modem displays the message '<Exit Enter>'.
2. Press the → button. If the modem displays 'View Only', go to Step 3. If the modem displays 'Password.....■■■■', use the → button and the ↑ button to change the display to 'Password....B293' by changing one character at a time. Press the → button one more time, and then check the display again to make sure it shows 'View Only'.
3. Press and release the ↑ or ↓ button as needed to change the display to 'Directories'.
4. Press the → button to display 'No Password'. If the display shows 'Password needed', use the ↑ button and the ↑ button once to change the display to 'Local Pass B293' by changing one character at a time.

5. Press the → button to display 'Store and View'.
6. Press the → button to display 'Directories xx'.
7. Set the target service processor phone number with the ↑ and ↓ buttons. Switch to the next number with the → button.
8. Press the ← button 8 times to exit.

Setting the IBM 7857 Modem Connected to MPA Card (SYN)

1. Press the ↓ key until the 'CONFIG' message displays at the top of the screen.
2. Press the → key until the 'Sel Factory' message displays at the bottom of the screen.
3. Press **Enter**.
4. Press the ↑ key until '3' displays.
5. Press **Enter** to load the predefined factory configuration 3.
6. Press the ↑ key until 'U1' displays at the top of the screen.
7. Press the → key until 'Sync mode 3' displays. Press **Enter** to validate.
8. Press the ↑ key until 'U2' displays.
9. Press the → key until 'Internal' displays. Press **Enter** to validate.
10. Press the ↑ key until 'U3' displays.
11. Press the → key until 'Autobaud' displays. Press **Enter** to validate.
12. Press the ↑ key until 'U4' displays.
13. Press the → key until 'CCITT' displays. Press **Enter** to validate.
14. Press the ↑ key until 'U5' displays.
15. Press the → key until '9600 V32 TRE' displays. Press **Enter** to validate.
16. Press the ↑ key until 'U6' displays.
17. Press the → key until 'V42Bis/MNP5 Enabled' displays. Press **Enter** to validate.
18. Press the ↑ key until 'U7' displays.
19. Press the → key until 'Auto Reliable/V42/MNP' displays. Press **Enter** to validate.
20. Press the ↑ key until 'U8' displays.
21. Press the → key until 'Xon/Xoff passed' displays. Press **Enter** to validate.
22. Press the ↑ key until 'U9' displays.
23. Press the → key until 'Xon/Xoff' displays. Press **Enter** to validate.
24. Press the ↑ key until 'U10' displays.
25. Press the → key until 'C108/2' displays. Press **Enter** to validate.
26. Press the ↑ key until 'U11' displays.
27. Press the → key until 'C106 Always follow C105' displays. Press **Enter** to validate.
28. Press the ↑ key until 'U12' displays.

29. Press the → key until 'C107/C109 Normal Mode' displays. Press **Enter** to validate.
30. Press the ↑ key until 'U13' displays.
31. Press the → key until 'C107 Follow C109(CD)' displays. Press **Enter** to validate.
32. Press ↓ until 'Mode' displays.
33. Press → until the message 'V25HDLC NRZIASC' displays.
34. Press **Enter**.

The modem is now in ITU-T V.25 bis synchronous mode. See “Saving the Modem Configuration” below.

Setting the 7857 Modem Connected to COM1 (ASYN)

1. Power OFF the modem
2. Press and hold the ↑ key while power ON the modem.
3. The modem is set to Factory 0 in AT command mode.

See “Saving the Modem Configuration” below.

Setting the 7857 Modem Connected to MPA Card on COM2 (ASYN)

1. Power OFF the modem
2. Press and hold the ↑ key while power ON the modem.
3. The modem is set to Factory 0 in AT command mode.

See “Saving the Modem Configuration” below.

Saving the Modem Configuration

1. Press the ↓ key until the 'CONFIG' message displays at the top of the screen.
2. Press the → key until the 'Store User Conf' message displays at the bottom of the screen.
3. Press **Enter**.
4. Press the ↑ key, to select the User Configuration Location (0 to 9) where you want to save the configuration.
5. Press **Enter** to save the current modem configuration.

The defined configuration is now active and saved. Every time the modem is reset (powered ON), this configuration is loaded.

Transmission Speed The IBM 7857 uses an **Adaptive line rate facility** which can automatically decrease or increase the modem's transmission speeds. This means that if telecommunication line conditions deteriorate, the modem can still function at the highest possible efficiency.

Setting and Saving the Target Service Processor Phone Number

1. Press the ↓ key until 'Store phone number' displays at the top of the screen.
2. Press the → key to select the first location number.
3. Press **Enter**.

4. Press the ↑ key to select a digit. Press the → key to move to the next position (↓ key can be used for backspacing).
5. Press **Enter** twice to save the target service processor's phone number.

Setting the IBM 7858 Modem Connected to MPA Card (SYN)

1. Press the ↓ key until the `'CONFIG'` message displays at the top of the screen.
2. Press the → key until the `'Sel Factory'` message displays at the bottom of the screen.
3. Press **Enter**.
4. Press the ↑ key until `3` displays.
5. Press **Enter** to load the predefined factory configuration 3.
6. Press the ↑ key until `'U4'` displays at the top of the screen.
7. Press the → key until `'9600bps V32'` displays. Press **Enter** to validate.
8. Press the ↑ key until `'U7'` displays.
9. Press the → key until `'Xon/Xoff Passed'` displays. Press **Enter** to validate.
10. Press the ↑ key until `'U8'` displays.
11. Press the → key until `'Xon / Xoff'` displays. Press **Enter** to validate.
12. Press the ↑ key until `'U10'` displays.
13. Press the → key until `'Forced on'` displays. Press **Enter** to validate.
14. Press the ↑ key until `'U12'` displays.
15. Press the → key until `Follow CD` displays. Press **Enter** twice to select this option.
16. Press ↓ until `'Mode'` displays.
17. Press → until the message `'V25HDLC NRZIASC'` displays.
18. Press **Enter** twice.

The modem is now in V.25 bis synchronous mode. See “Saving the Modem Configuration” on page B-7 below.

Setting the 7858 Modem Connected to COM1 (ASYN)

1. Power OFF the modem
2. Press and hold the ↑ key while power ON the modem.
3. The modem is set to Factory 0 in AT command mode.

See “Saving the Modem Configuration” on page B-7 below.

Setting the 7858 Modem Connected to MPA Card on COM2 (ASYN)

1. Power OFF the modem
2. Press and hold the ↑ key while power ON the modem.
3. The modem is set to Factory 0 in AT command mode.

See “Saving the Modem Configuration” on page B-7 below.

Saving the Modem Configuration

1. Press the ↓ key until the `'CONFIG'` message displays at the top of the screen.
2. Press the → key until the `'Store User Conf.'` message displays at the bottom of the screen.
3. Press **Enter**.
4. Press the ↑ key, to select the User Configuration Location (0 to 9) where you want to save the configuration.
5. Press **Enter** to save the current modem configuration.

The defined configuration is now active and saved. Every time the modem is reset (powered ON), this configuration is loaded.

Transmission Speed The IBM 7858 uses an **Adaptive line rate facility** which can automatically decrease or increase the modem's transmission speeds. This means that if telecommunication line conditions deteriorate, the modem can still function at the highest possible efficiency.

Setting and Saving the Target Service Processor Phone Number

1. Press the ↓ key until `'Store phone number'` display at the top of the screen.
2. Press the → key to select the first location number.
3. Press **Enter**.
4. Press the ↑ key to select a digit. Press the → key to move to the next position (↓ key can be used for backspacing).
5. Press **Enter** twice to save the target service processor's phone number.

RSF Modems

This chapter applies to **3745 Models 130** to **610**. It does not apply to **Model A**.

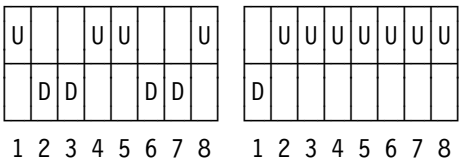
If you have an RSF link to the Remote Technical Assistance Information Network (RETAIN), your IBM service representative will install the RSF modem.

If a RSF modem is not provided with the 3745, follow the installation procedure below for compatibility with ITU-T V.23. This will set your modem in half-duplex mode, with BSC protocol set at 1200 bps, and without clocking.

Note: Operating characteristics for RSF modems are country-dependent.

IBM 5858 Modem

1. Set the rear panel switches for a V.23 modem as below:



2. Set all the front panel switches to OUT.

IBM 7855 Modem

Refer to “Setting the 7857 Modem Connected to COM1 (ASYN)” on page B-5.

IBM 7857 Modem

Refer to “Modems for 3745 Models 130 to 160” on page B-1.

Appendix C. Configuration for a Two-Target Remote Workstation

The following example shows the configuration for a remote workstation controlling two target service processors, ERS1 and BS12 (see Figure C-1 below).

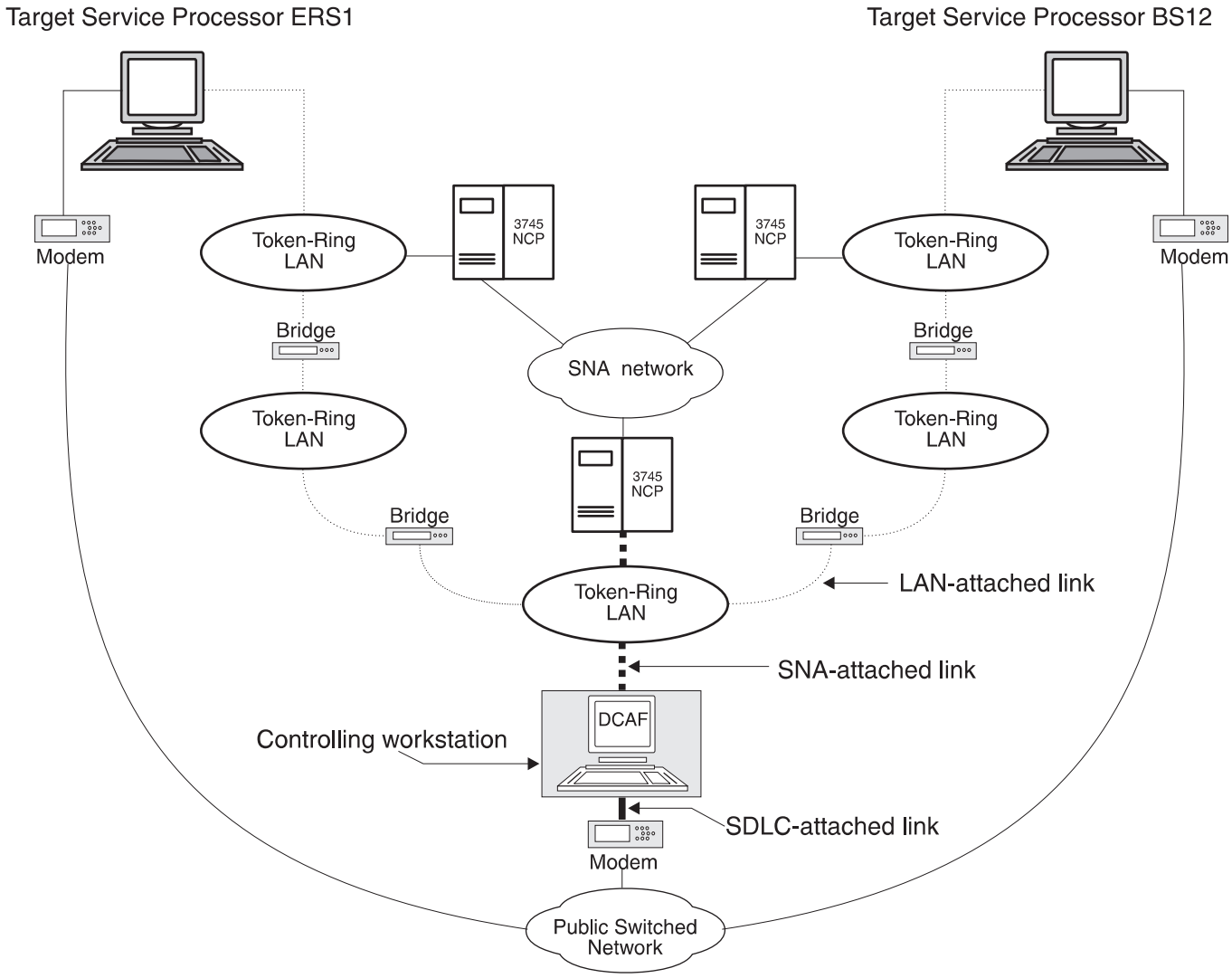


Figure C-1. A Two-Target Configuration

The example in Figure C-1 on page C-1 assumes that the workstation is running:

- CS/2 or CM/2.
- NCP Version 6, Release 2 or higher with 3746-900 features.
- VTAM Version 3, Release 4.1.

NCP Definitions

NCP must contain definitions for the TIC2 or TIC3. These ports are used to attach the controlling workstation and the two service processors to token-ring LANs.

The only other requirement is to manage dynamic LUs by entering the following definition:

```
LUDRPOOL NUMILU=(a number > 0)
```

VTAM Definitions

Start List

The VTAM start list below should contain the XNETALS=YES statement to enable the cross-network SSCP-PU session activation (without SNI), and the statement DYNLU=YES to handle dynamic LUs (see the example below).

```
HOSTSA=10,SSCPID=10,MAXSUBA=63
CONFIG=10,NETID=SYSTST,SSCPNAME=CDRM20,
XNETALS=YES,DYNLU=YES,
NOPROMPT,DLRTCB=32,SUPP=NOSUP,NOTNSTAT,NOTRACE,TYPE=VTAM,
LPBUF=(120,,0,,60,60), LARGE GENERAL PURPOSE_PAGEABLE
LFBUF=(96,,0,,24,10), LARGE GENERAL PURPOSE_FIXED
LFBUF=(128,,0,,32,10), SMALL GENERAL PURPOSE_FIXED
CRPLBUF=(160,,13,,80,80), RPL_COPY_PAGEABLE
IOBUF=(256,256,34,,68,68) I/O BUFFERS_FIXED (NP&PP BUF REMOVED)
```

Logmode Table

The logmode table below is called SOCMOTAB:

```
DCAFMODE MODEENT LOGMODE=DCAFMODE 22 ,
                 TYPE = 0,
                 FMPROF = X'13',
                 TSPROF = X'07',
                 PRIPROT = X'B0',
                 SECPROT = X'B0',
                 COMPROT = X'50B1',
                 SSNDPAC = X'08',
                 SRCVPAC = X'08',
                 RUSIZES = X'8787',
                 PSNDPAC = X'08',
                 PSERVIC = X'060200000000000000002F00'
```

Switched Major Nodes

```
*=================*=====================*=========================*=========*
*                                                                             *
*     MAJNODE FOR CONNECTION :  CONTROLLING  <==> NETVIEW V2R3                *
*                                                                             *
*                                                                             *
*=================*=====================*=========================*=========*
DCAFCTRL VBUILD TYPE=SWNET,MAXGRP=1,MAXNO=1
*-----------------------------------------------------------------------------*
CPCTRL   PU    ADDR=04,PUTYPE=2,NETID=SYSTST 1 ,CPNAME=CPCTRL  2 ,     X
               MAXPATH=8,MAXDATA=265,MAXOUT=1,                          X
               DISCNT=NO
CTRL1    LU    LOCADDR=0,MODETAB=SOCMOTAB

*=================*=====================*=========================*=========*
*                                                                             *
*     MAJNODE FOR CONNECTION :  MOSS-E ERS1  <==> NETVIEW V2R3                *
*                                                                             *
*                                                                             *
*=================*=====================*=========================*=========*
NTVERS1  VBUILD TYPE=SWNET,MAXGRP=1,MAXNO=1
*-----------------------------------------------------------------------------*
CPERS1   PU    ADDR=04,PUTYPE=2,NETID=SYSTST  10 ,CPNAME=CPERS1 23 ,   X
               MAXPATH=8,MAXDATA=265,MAXOUT=1,                          X
               DISCNT=NO
PATHERS1 PATH  DIALNO=0204400000761111,GRPNM=L76G2080
MOSSERS1 LU    LOCADDR=0,MODETAB=SOCMOTAB

*=================*=====================*=========================*=========*
*                                                                             *
*     MAJNODE FOR CONNECTION :  MOSS-E BS12  <==> NETVIEW V2R3                *
*                                                                             *
*                                                                             *
*=================*=====================*=========================*=========*
NTVBS12  VBUILD TYPE=SWNET,MAXGRP=1,MAXNO=1
*-----------------------------------------------------------------------------*
CPBS12   PU    ADDR=04,PUTYPE=2,NETID=SYSTST  10 ,CPNAME=CPBS12  22 ,  X
               MAXPATH=8,MAXDATA=265,MAXOUT=1,                          X
               DISCNT=NO
PATHBS12 PATH  DIALNO=0204400000761112,GRPNM=L76G1088
MOSSBS12 LU    LOCADDR=0,MODETAB=SOCMOTAB
```

DCAF Remote Workstation Configuration

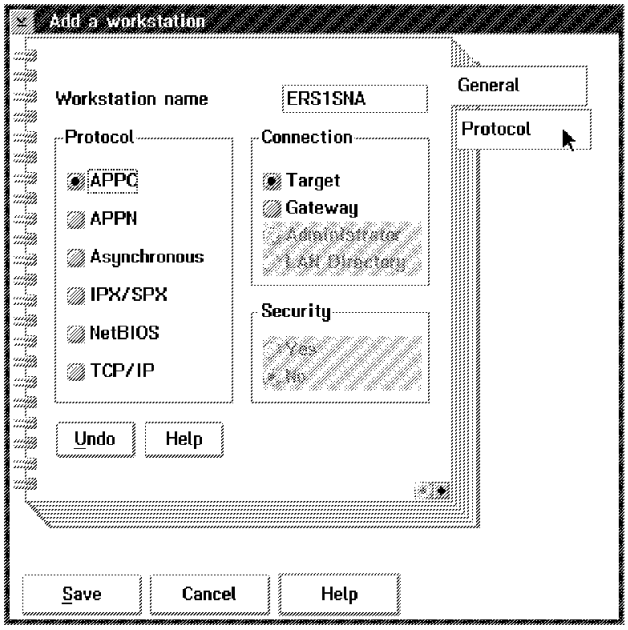
Step 1. From Desktop Manager, double-click the Distributed Console Access Facility icon.

Step 2. Double-click the DCAF Controller icon.

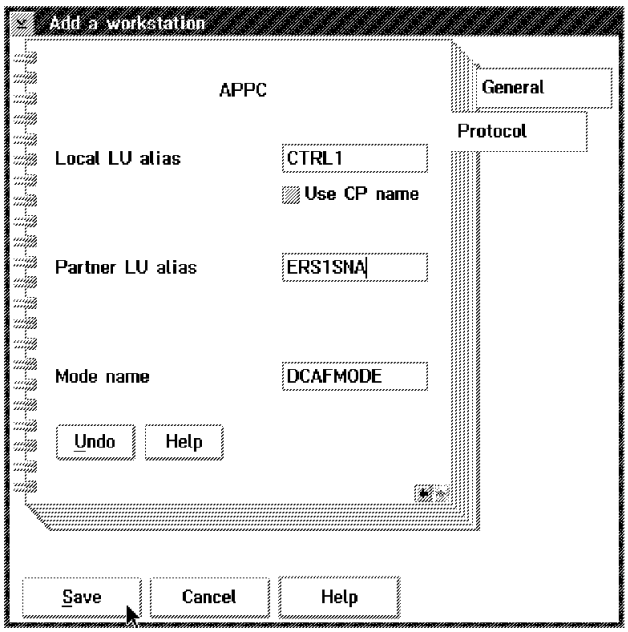
Step 3. Click **Session**, then **Open workstation directory**.

Step 4. Click **OK** for a first installation. Otherwise continue with next step.

Step 5. From the DCAF Directory window, click **Workstation** then **Add**.



Step 6. Enter ERS1SNA in the **Workstation name** field and click **Protocol**.



Step 7. Fill in the **Local LU alias, Partner LU alias, and Mode name** fields respectively with `CTRL1`, `ERS1SNA`, `DCAFMODE`, and click **Save**.

Step 8. Repeat Step 6 and Step 7 by entering the following in the **Workstation name** and **Partner LU alias** fields:

a. `ERS1SDLC`, then click **Save**.

b. `ERS1LAN`, then click **Save**.

c. `BS12SNA`, then click **Save**.

d. `BS12SDLC`, then click **Save**.

e. `BS12LAN`, then click **Save**.

Step 9. Click **Cancel** to finish.

Step 10. Run the EQNSFPAR program to verify link records.

Bibliography

Customer Documentation for the IBM 3745 (Models 210, 310, 410, 610, 21A, 31A, 41A, and 61A), and 3746 (Model 900)

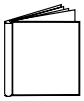
Table X-1 (Page 1 of 4). Customer Documentation for the 3745 Models x10 and x1A, and 3746 Model 900

This customer documentation has the following formats:

Finding Information

3745 Models A and 3746 Books

Starting with engineering change (EC) F12380, all of the books in the 3745 Models A and 3746 library are available on the CD-ROM that contains the Licensed Internal Code (LIC) for this EC.



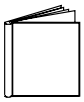
SA33-0172

IBM 3745 Communication Controller
Models 210 to 61A
IBM 3746 Expansion Unit Model 900

Customer Master Index[1]

Provides references for finding information in the customer documentation library.

Evaluating and Configuring



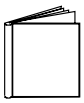
GA33-0092

IBM 3745 Communication Controller
Models 210, 310, 410, and 610

Introduction

Gives an introduction about the IBM Models 210 to 610 capabilities.

For Models A refer to the *Overview*, GA33-0180.

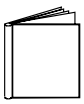


GA33-0180

IBM 3745 Communication Controller Models A[2]
IBM 3746 Nways Multiprotocol Controller
Models 900 and 950

Overview

Gives an overview of connectivity capabilities within SNA, APPN, and IP networking.



GA33-0457

IBM 3745 Communication Controller Models A[2]
IBM 3746 Expansion Unit Model 900
Models 900 and 950

Planning Guide

Planning for:

- Field upgrades
- Service processor and alert management configuration
- Network integration (NCP, APPN, and IP control)
- Physical installation.

Table X-1 (Page 2 of 4). Customer Documentation for the 3745 Models x10 and x1A, and 3746 Model 900

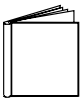
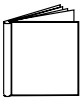
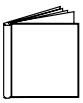
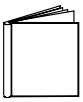
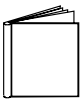
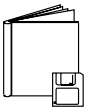
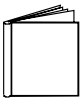
Preparing Your Site		
	GC22-7064	***IBM System/360, System/370, 4300 Processor*** ***Input/Output Equipment Installation Manual-Physical Planning*** (Including Technical News Letter GN22-5490) Provides information for physical installation of the 3745 Models 130 to 610. For 3745 Models A and 3746 Model 900, refer to the *Planning Guide*, GA33-0457.
	GA33-0127	***IBM 3745 Communication Controller*** ***Models 210, 310, 410, and 610*** ***Preparing for Connection*** Helps for preparing the 3745 Models 210 to 610 cable installation. For 3745 Models A refer to the *Connection and Integration Guide*, SA33-0129.
Preparing for Operation		
	GA33-0400	***IBM 3745 Communication Controller All Models***[3] ***IBM 3746 Nways Multiprotocol Controller*** ***Models 900 and 950*** ***Safety Information***[1] Provides general safety guidelines.
	SA33-0129	***IBM 3745 Communication Controller All Models***[3] ***IBM 3746 Nways Multiprotocol Controller Model 900*** ***Connection and Integration Guide***[1] Contains information for connecting hardware and integrating network of the 3745 and 3746-900 after installation.
	SA33-0416	***Line Interface Coupler Type 5 and Type 6*** ***Portable Keypad Display*** ***Migration and Integration Guide*** Contains information for moving and testing LIC types 5 and 6.
	SA33-0158	***IBM 3745 Communication Controller All Models***[3] ***IBM 3746 Nways Multiprotocol Controller Model 900*** ***Console Setup Guide***[1] Provides information for: • Installing local, alternate, or remote consoles for 3745 Models 130 to 610 • Configuring user workstations to remotely control the service processor for 3745 Models A and 3746 Model 900 using: – DCAF program – Telnet Client program.
Customizing Your Control Program		
	SA33-0178	***Guide to Timed IPL and Rename Load Module*** Provides VTAM procedures for: • Scheduling an automatic reload of the 3745 • Getting 3745 load module changes transparent to the operations staff.
Operating and Testing		

Table X-1 (Page 3 of 4). Customer Documentation for the 3745 Models x10 and x1A, and 3746 Model 900

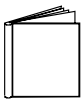
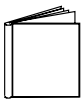
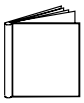
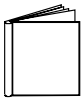
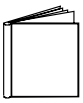
	SA33-0098	***IBM 3745 Communication Controller All Models***[4] ***Basic Operations Guide***[1] Provides instructions for daily routine operations on the 3745 Models 130 to 610.
	SA33-0177	***IBM 3745 Communication Controller Models A***[2] ***IBM 3746 Nways Multiprotocol Controller Model 900*** ***Basic Operations Guide***[1] Provides instructions for daily routine operations on the 3745 Models 17A to 61A, and 3746 Model 900 operating as an SNA node (using NCP), APPN/HPR Network Node, and IP Router.
	SA33-0097	***IBM 3745 Communication Controller All Models***[3] ***Advanced Operations Guide***[1] Provides instructions for advanced operations and testing, using the 3745 MOSS console.
	On-line Information	***Controller Configuration and Management Application*** Provides a graphical user interface for configuring and managing a 3746 APPN/HPR Network Node and IP Router, and its resources. Is also available as a stand-alone application, using an OS/2 workstation. Defines and explains all the 3746 network node and IP configuration parameters through its on-line help.
	SH11-3081	***IBM 3746 Nways Multiprotocol Controller Models 900 and 950*** ***Controller Configuration and Management: User's Guide***[5] Explains how to use CCM and gives examples of the configuration process.
Managing Problems		
	SA33-0096	***IBM 3745 Communication Controller All Models***[3] ***Problem Determination Guide***[1] A guide to perform problem determination on the 3745 Models 130 to 61A.
	On-line Information	***Problem Analysis Guide*** An on-line guide to analyze alarms, events, and control panel codes on: • IBM 3745 Communication Controller Models A[2] • IBM 3746 Nways Multiprotocol Controller Models 900 and 950.

Table X-1 (Page 4 of 4). Customer Documentation for the 3745 Models x10 and x1A, and 3746 Model 900



SA33-0175

IBM 3745 Communication Controller Models A[2]
IBM 3746 Expansion Unit Model 900
IBM 3746 Nways Multiprotocol Controller Model 950

Alert Reference Guide

Provides information about events or errors reported by alerts for:

- IBM 3745 Communication Controller Models A[2]
- IBM 3746 Nways Multiprotocol Controller Models 900 and 950.

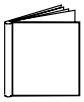
[1] Documentation shipped with the 3745.
[2] 3745 Models 17A to 61A.
[3] 3745 Models 130 to 61A.
[4] Except 3745 Models A.
[5] Documentation shipped with the 3746-900.

Additional Customer Documentation for the IBM 3745 Models 130, 150, 160, 170, and 17A

Table X-2. Additional Customer Documentation for the 3745 Models 1x0 and 17A

This customer documentation has the following format:

Finding Information



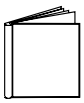
SA33-0142

IBM 3745 Communication Controller
Models 130, 150, 160, 170, and 17A
IBM 3746 Expansion Unit Model 900

Customer Master Index[1]

Provides references for finding information in the customer documentation library.

Evaluating and Configuring



GA33-0138

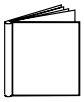
IBM 3745 Communication Controller
Models 130, 150, and 170

Introduction

Gives an introduction about the IBM Models 130 to 170 capabilities, including Model 160.

For Model 17A refer to the *Overview*, GA33-0180.

Preparing Your Site



GA33-0140

IBM 3745 Communication Controller
Models 130, 150, 160, and 170

Preparing for Connection

Helps for preparing the 3745 Models 130 to 170 cable installation.

For 3745 Model 17A refer to the *Connection and Integration Guide*, SA33-0129.

[1] Documentation shipped with the 3745.

List of Abbreviations

ac	Alternating Current
ACF	Advanced Communications Function
APPC	Advanced Program-to-Program Communication
APPN	Advanced Peer-to-Peer Networking
AUI	Attachment Unit Interface
BAN	Boundary Access Node
BNN	Boundary Network Node
bps	bits per second
Bps	Bytes per second
BSC	Binary Synchronous Communication
CCM	Controller Configuration and Management
CCITT	Comité Consultatif International Télégraphique et Téléphonique The International Telegraph and Telephone Consultative Committee (Now: ITU-T)
CM	Communications Manager
CP	Control Point
CSD	Corrective Service Diskette
DCAF	Distributed Console Access Facility
DLC	Data Link Control
DNNP	Dual Network Node Processor
DTE	Data Terminal Equipment
EC	Engineering Change
ECL	Error Checking Link
EIA	Electronic Industries Association
ES	Extended Services
ESCON	Enterprise System Connection
FCC	Federal Communications Commission
HPR	High Performance Routing
IBM	International Business Machines Corporation
IDF	Internet Protocol Definition File
IML	Initial Microcode Load
IP	Internet Protocol
IPL	Initial Program Load
ISDN	Integrated Services Digital Network
ITU-T	International Telecommunications Union-Telecommunications (Formerly: CCITT)
LAN	Local Area Network
LAPS	LAN Adapter Protocol Support
LIC	Line Interface Coupler
LU	Logical Unit
m	meter; 1.09 yards; 3.28 feet; 39.37 inches
MAC	Medium Access Control
MAE	Multiaccess Enclosure
MAU	Multistation Access Unit
Mbps	Megabits per second; 1 048 476 bits per second
MCA	MOSS Console Adapter
MOSS	Maintenance and Operator Subsystem
MOSS-E	Maintenance and Operator Subsystem-Extended
MPA	Multi-protocol Adapter
MPTS	Multiple Protocol Transport Services
NCP	Network Control Program
NDF	Network Definition File
NN	Network Node
NNP	Network Node Processor
NPM	NetView Performance Monitor
NZRI	Non-Return-to-Zero Inverted
NTS	Network Transport Services
OS	Operating System
PE	Product Engineer
PLU	Partner Logical Unit
PPP	Point-to-Point Protocol
PRPQ	Programming Request for Price Quotation

PS Personal System

PU Physical Unit

RAM Random Access Memory

RETAIN Remote Technical Assistance Information Network

RSF Remote Support Facility

RTS Ready To Send

SAP Service Access Point

SDLC Synchronous Data Link Control

SNA Systems Network Architecture

SPAU Service Processor Access Unit

TCP/IP Transmision Control Protocol/Internet Protocol

TIC Token-ring Interface Coupler

TP Transaction Program

URL Uniform Resource Locator

VCCI Japanese Voluntary Control Council for Interference

VGA Video Graphics Adapter

VTAM Virtual Telecommunications Access Method

WAN Wide Area Network

Glossary

This glossary defines all new terms used in this manual. It also includes terms and definitions from the *IBM Dictionary of Computing,* SC20-1699.

addressing. Where a controlling workstation with access to DTEs sharing transmission lines, selects a DTE to send a message.

Advanced Program-to-Program Communication (APPC). An implementation of the SNA/SDLC LU6.2 protocol that allows interconnected systems to communicate and share the processing of programs.

advanced peer-to-peer networking (APPN). An extension of SNA featuring: (a) greater distributed network control that avoids critical hierarchical dependencies, thereby isolating the effects of single point failure; (b) dynamic exchange of network topology information to foster ease of connection reconfiguration, and adaptive route selection; (c) dynamic definition of network resources; and (d) automated resource registration and directory lookup. APPN extends the LU 6.2 peer orientation for end-user services to network control and supports multiple LU types, including LU 2, LU 3, and LU 6.2.

alarm. A message sent to the MOSS operator console. In case of an error, a reference code identifies the nature of the error.

alert. A message sent to the host console. In case of an error, a reference code identifies the nature of the error.

communication controller. A device that directs the transmission of data over the data links of a network; its operation can be controlled by a program in the processor connected to the controller is connected, or controlled by a program within the device. Examples are the IBM 3705, IBM 3720/3725/3726, IBM 3745 models 130 to 61A, and IBM 3746 models 900/950.

communications manager. A function of the OS/2, allowing a workstation to connect to a host computer and use the host resources and resources of other personal computers attached to the workstation, either directly or through the host.

configuration data file (CDF). A 3745 MOSS file that contains a description of all the hardware features (presence, type, address, and characteristics).

configuration data file - extended (CDF-E). A 3746 MOSS-E file that contains a description of all the hardware features (presence, type, address, and characteristics).

control panel. A panel of switches and indicators for the operator and service personnel.

control point (CP). A collection of tasks which provide the directory and route selection functions for APPN. An end node control point provides the configuration, session, and management services in conjunction with the control point of the serving network node. A network node control point provides session and routing services.

control program. A program designed to schedule and supervise the execution of programs for the controller.

Customer engineer. See: *IBM service representative*.

data link control (DLC). In SNA, a set of rules used by two nodes on a data link to accomplish an orderly exchange of information. Synonymous with line control.

data terminal equipment (DTE). That part of a data station that serves as a data source, data link, or both, and provides for the data communication control function according to protocols. For example, the IBM 3745 can be a DTE.

Distributed Console Access Facility (DCAF). (1) This program product provides a remote console function that allows a user at one programmable PS/2 workstation to remotely control the keyboard input and monitor the display of output of another programmable workstation. The DCAF program does not affect the application programs that are running on the workstation that is being controlled. (2) An icon that represents the Distributed Console Access Facility.

host processor. (1) A processor that controls all or part of a user application network. (2) In a network, the processing unit in which the access method for the network resides. (3) In an SNA network, the processing unit that contains a system services control point (SSCP). (4) A processing unit that executes the access method for attached communication controllers. Also called *host*.

IBM service representative. An individual in IBM who carries out maintenance services for IBM products or systems. Also called the *Customer engineer*.

integrated services digital network (ISDN). A digital end-to-end telecommunication network that supports multiple services including, but not limited to, voice and data.

International Telecommunication Union (ITU). The specialized telecommunication agency of the United Nations, established to provide standardized communication procedures and practices, including frequency allocation and radio regulations worldwide. (Formerly CCITT).

Internet Protocol (IP). In TCP/IP, a protocol that routes data from its source to its destination in an Internet environment.

line interface coupler (LIC). A circuit that attaches up to four transmission cables to the controller (from DTEs, DCEs, or telecommunication lines).

local area network (LAN). A computer network located on a user's premises within a limited geographical area. Communication within a LAN is not subject to external regulation; however, communication across the LAN boundary may be subject to some form of regulation.

logical unit (LU). In SNA, a port through which an end user accesses the SNA network in order to communicate with another end user and through which the end user accesses the functions provided by system services control points (SSCPs). An LU can support at least two sessions, one with an SSCP and one with another LU, and may be capable of supporting many sessions with other logical units.

maintenance and operator subsystem - extended (MOSS-E). The licensed internal code loaded on the service processor hard disk to provide maintenance and operator facilities to the user and IBM service representative.

medium access control (MAC). For LAN, the method of determining which device has access to the transmission medium at any time.

microcode. A program that is loaded in a processor (for example, the MOSS-E processor) to replace a hardware function. The microcode is not accessible to the customer.

multistation access unit (MAU). In the IBM token-ring network, a wiring concentrator that connect up to eight lobes to a ring.

NetView Performance Monitor (NPM). An IBM licensed program that collects, monitors, analyses, and displays data relevant to the performance of a VTAM telecommunication network. It runs as an on-line VTAM application program.

network. See *user application network*.

Network Control Program (NCP). An IBM licensed program that provides communication controllers supports for single-domain, multiple domain, and interconnected network capability.

network node processor (NNP). The processor that is attached to the 3746-950 via a token-ring LAN, running the APPN Network Node functions.

on-line information and help. Information stored in a computer system than can be displayed, used, and sometimes modified in an interactive manner without any need to obtain a hard copy.

physical unit (PU). In SNA, the component that manages and monitors the resources, such as attached links and adjacent link stations, associated with a node, as requested by an SSCP via an SSCP-PU session. An SSCP activates a session with the physical unit in order to indirectly manage, through the PU, resources of the node such as attached links. This term applies to type 2.0, type 4, and type 5 nodes only.

received line signal detector (RLSD). A signal defined in the EIA-232 standard that indicates to the data terminal equipment (DTE) that it is

receiving a signal from the remote data circuit-terminating equipment (DCE).

remote console. A PS/2 attached to the IBM 3746-950 either by a switched line (with modems) or by one of communication lines of the user network.

remote support facility (RSF). RSF provides IBM maintenance assistance when requested via the public switched network. It is connected to the IBM RETAIN database system.

service processor. The processor that is attached to the 3746-950 via a token-ring LAN, running the MOSS-E functions.

shutdown. The process of ending a operation of a system or subsystem, following a defined procedure.

subarea network. Connected subareas, their directly attached peripheral nodes, and the lines that connect them.

Synchronous Data Link Control (SDLC). A discipline for managing synchronous, code transparent, serial-by-bit information transfer over a link connection. Transmission exchanges may be duplex or half-duplex over switched or nonswitched links. The configuration of the link connection may be point-to-point, multipoint, or loop. SDLC conforms to subsets of the Advanced Data Communication Control Procedures of the American National Standards Institute and High-Level Data Link Control (HDLC) of the International Standard Organization (ISO).

token ring. A network with a ring topology that passes tokens from one attaching device to another.

token-ring adapter (TRA). Line adapter for IBM Token-Ring Network, composed of one token-ring processor card (TRP), and two token-ring interface couplers (TICs).

token-ring interface coupler type 3 (TIC3). A circuit that attaches an IBM Token-Ring network to an IBM 3746-900 or 3746-950.

transmission interface. The interface between the controller and the user application network.

transmission line. The physical means for connecting two or more DTEs (via DCEs). It can be nonswitched or switched. Also called a *line*.

user application network. A configuration of data processing products, such as processors, controllers, and terminals, for data processing and information exchange. This configuration may use circuit-switched, packet-switched, and leased-circuit services provided by carriers or the PTT. Also called *user network*.

Virtual Telecommunication Access Method (VTAM). A set of programs that maintain control of the communication between terminals and application programs running under DOS, OS/1, and OS/2 operating systems.

V.24 and V35. ITU-T recommendations on transmission interfaces.

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3745 Communication Controller All Models
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Console Setup Guide

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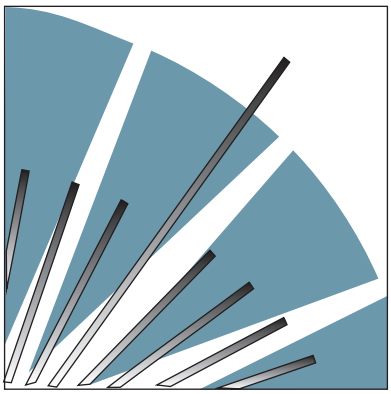

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