3745 Communication Controller All Models 3746 Nways Multiprotocol Controller Model 900

_		•

# **Console Setup Guide**



3745 Communication Controller All Models 3746 Nways Multiprotocol Controller Model 900

		•	
	-		
	_	V	/
		-	
	-	-	
		-	
		۲	_

# **Console Setup Guide**

#### 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)**

The information contained in this manual is subject to change from time to time. Any such changes will be reported in later revisions.

Order publications through your IBM\* representative or the IBM branch office serving your locality. Publications are not stocked at the address given below.

A form for readers' comments appears at the back of this publication. If the form has been removed, address your comments to:

IBM France Centre d'Etudes et Recherches Service 0798 - BP 79 06610 La Gaude France

- FAX: 33 4 93 24 77 97
- IBM Internal Use: LGERCF at IBMFR
- Internet: lgercf@fr.ibm.com

When you send information to IBM, you grant IBM a non-exclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

#### © Copyright International Business Machines Corporation 1989, 1998. All rights reserved.

Note to U.S. Government Users — Documentation related to restricted rights — Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

# Contents

Figures	. ix
Tables	. ix
Notices	. xi vi
Electronic Emission Notices	. ^ı vi
Trademarks and Service Marks	
	viii
	AIII
About this Guide	xv
Conventions Used in this Guide	XV
Who Should Use this Guide	xvi
How this Guide is Organized	xvi
What is New in this Edition	xvii
Where to Find More Information	xvii
World Wide Web	xvii
Year 2000 Statement	xvii
Chapter 1. Introduction to Remote Access Programs	1-1
Remote Workstations Using Console for Java	1-1
Microcode Support Options for Console for Java	1-1
Remote Workstations Using DCAF	1-2
DCAF Logon Password and Service Processor Security	1-4
Regaining Control of the Service Processor	1-4
Minimum Workstation (Remote Console) Configuration	1-4
Programming Requirements	1-4
Hardware Requirements and Recommendations	1-5
Chapter 2 Program Support for Remote Workstation Access	2-1
Required Program Support	2-1
	2-1
Customizing CS/2 and CM/2	2-1
Customizing a CS/2 Remote Workstation	2-1
Configuring Data Link Control (DLC) for a Service Processor	2-2
Create or Change the Token-Ping Network DLC Adapter Profile	2-2
Create of Change the SDLC DLC Adapter Profile	2-2
	2-2
Developed Installation	2-J
	2-3
Chapter 3. Using DCAF for Remote Access to the Service Processor	3-1
Starting a Session	3-1
Closing a Session	3-2
From the Remote Workstation	3-2
From the Target Service Processor	3-2
Chapter 4. Modem-Attached Remote Workstation Configuration	4-1
Configuring a Target Service Processor	4-1
Parameter Values that Must Be the Same	4-1
Configuring the Service Processor in MOSS-E	4-2

Remote Workstation Modems	. 4-4
Configuring CS/2 Remote Workstations	. 4-4
Configuring the Remote Workstation Modem	. 4-4
Procedures for Service Processors 6275, 3172, 7585	. 4-5
7855 Asynchronous Modem to Service Processor 6275, 3172, and 7585 .	. 4-6
7857 Asynchronous Modem to Service Processor 6275, 3172, and 7585 .	4-11
Hayes Asynchronous Modem to Service Processor 6275, 3172, and 7585	4-16
Configuring DCAF for a Modem	4-21
Chapter 5. APPN-Attached Remote Workstation	. 5-1
Configuring a Target Service Processor	. 5-1
Parameter Values that Must Be the Same	. 5-2
Configuring the Service Processor in MOSS-E	. 5-2
Configuring an APPN-Attached Remote Workstation	. 5-3
Configuring CS/2	. 5-4
Configuring DCAF for APPN	. 5-9
Chapter 6. SNA-Attached Remote Workstation	. 6-1
Configuring a Target Service Processor	. 6-1
Parameter Values that Must Be the Same	. 6-2
Configuring the Service Processor in MOSS-E	. 6-2
Configuring a SNA-Attached Remote Workstation	. 6-4
Configuring CS/2	. 6-4
Configuring DCAF for SNA	6-10
NCP Definitions	6-11
Remote Controlling Workstation	6-11
Target Service Processor	6-12
VTAM Definitions	6-13
Start Definitions	6-13
Logmode Table	6-13
Major Node Definitions	6-14
Remote Workstation	6-14
Target Service Processor	6-14
	• • •
Chapter 7. TCP/IP LAN-Attached Remote Workstation	. 7-1
Configuring a Target Service Processor	. 7-1
Configuring a TCP/IP LAN-Attached Remote Workstation	. 7-3
Configuring DCAF for TCP/IP	. 7-3
Configuring TCP/IP	. 7-5
Chapter 8. APPC LAN-Attached Remote Workstation	. 8-1
Configuring a Target Service Processor	. 8-1
Parameter Values that Must Be the Same	. 8-1
Configuring the Service Processor in MOSS-E	. 8-2
Configuring a APPC LAN-Attached Remote Workstation	. 8-4
Configuring CS/2	. 8-4
Configuring DCAF for APPC	8-11
	••••
Chapter 9. Telnet-attached Remote Workstation	9-1
Introduction	. 9-1
Consoles	. 9-1
Logon Password	9-2
Programming Requirements	. 9-2
Hardware Requirements and Recommendations	. 9-2

Installation	9-2
Using Telnet to Remotely Log On to the Network Node Processor	9-2
Starting a Session	9-2
Closing a Session	9-2
-	
Chapter 10. Console for Java Remote Access	. 10-1
Overview of Console for Java	. 10-1
Remote Access with Console for Java	. 10-1
Remote Workstation Access to a Service Processor	. 10-2
Remote Access Via Switched-Line (Modem)	10-2
Remote Access Via the Service LAN	10-2
Configuring Console for Java	10-2
Procedure for Configuring the Service Processor	10-2
	. 102
Chapter 11 Using Console for Java to Remotely Access a Service	
Processor with a Web Browser	11-1
Remote Workstation Requirements	 11_1
Remote Workstation Access Via Switched Line (Medem)	. 11-1 11-2
Configuring the Remote Workstation in Windows 05	. 11-2 11-2
	. 11-2
Initiating a Switched Line Connection in Windows 95	. 11-7
	. 11-8
	. 11-8
Configuring the Network Dialer Program in OS/2 Warp	. 11-8
Initiating a Switched Line Connection in OS/2 Warp	11-10
Remote Workstation Access Via Service LAN	11-12
Configuring the Remote Workstation on a LAN	11-12
Initiating a Remote Workstation Connection to the Service Processor	11-12
Initiating a Remote Workstation Connection to the NNP	11-14
Connecting to the NNP in MOSS-E	11-14
Connecting to the NNP from a Web Browser	11-15
Console for Java Menus	11-17
Actions Menu	11-17
Settings Menu	11-18
Keys Menu	11-18
Chapter 12. Installing Console for Java Program	. 12-1
Installing Console for Java as a Program on a Remote Workstation	. 12-1
Remote Workstation Requirements for Console for Java	. 12-1
Procedure for Installing the Console for Java Program	. 12-1
Remote Workstation Settings for Console for Java	. 12-3
Windows 95	. 12-3
OS/2 Warp	12-3
Running the Console for Java Program in Windows	12-4
Running the Console for Java Program in OS/2	12-4
Console for Java File Manager	. 12-5
	. 12-J 12 G
Developeding Files to the Service Processor	. 12-0
	. 12-7
Annendix A Setting Un Local Alternate or Remote Consoles	Δ_1
Conoral Information on Consoles	. <del></del>
Deneral Information on Consoles	. A-I
2151 in Native Mode (Local Alternate or Pernete)	. <del>A-</del> Z
2151 in Native Would (Local, Alternate of Remote)	. A-Z
2450 in 2454 Emulation Mode (Local, Alternate, or Remote)	. A-3
3153 IN 3151 Emulation Mode (Local, Alternate, or Remote Consoles)	. A-5

Recommended Settings	A-5
Starting the Console Configuration	A-5
Closing the Console Configuration	A-6
3161 or 3163 (Local, Alternate, or Remote)	A-6
IBM PS/2 (Local, Alternate, or Remote)	A-6
MOSS Local or Alternate Console Emulation with CM/2 and Softerm	A-9
MOSS Remote Console Emulation with CM/2 and Softerm	A-10
Starting Custom Plus	A-10
Defining a New Session	A-10
Defining the Terminal Emulation Profile	A-10
Defining Connection Path Profile	A-12
Ending Definition of a New Session	A-12
Testing a Connection with a Local or Alternate Console	A-13
Testing the Modem Connection to a Remote Console	A-13
Location of 3745 Console Connectors	A-14
3745 Communication Controller Models 130, 150, 160, and 170	A-14
3745 Communication Controller Models 210, 310, 410, and 610	A-15
Console and RSF Interface Cables	A-15
Cable from the 3745 to a Local Console	A-15
Local Console Cable Assembly	A-15
Cable from the 3745 to an Alternate Console	A-16
Alternate Console Cable Assembly	A-16
Cable Adapters for Local/Alternate Console	A-16
Console Connection through the IBM 7427 Console Switching Unit	A-17
Cable from the 3745 to the 7427 Switching Unit (A)	A-17
Cable Assembly for Local Console	A-17
Cable Assembly for Alternate Console	A-17
Cable from the 7427 to a 31xx, PS/2, or PC Console (B)	A-17
Cable Assembly for 31xx Console	A-17
Cable Assembly for PS/2 or PC Console	A-17
Cable from the 7427 to a 3727 Console (B)	A-17
Cable Assembly	A-17
Remote Console Cable	A-18
Cable to Modem for Remote Console	A-18
Cable to Modem for RSF	A-18
RSF Modem Cable	A-18
	/ 10
Appendix B. Modem Setup	B-1
Modems for 3745 Models 130 to 160	B-1
Setting Up	B-1
Switch Settings for IBM Modems 5841, 5842, and 5853	B-2
IBM 5841 Modem	B-2
IBM 5842 Modem	B-2
IBM 5853 Modem	B-2
Modems for the 3746	B-3
Setting the IBM 7855 Modem	B-3
Setting the IBM 7857 Modern Connected to MPA Card (SYN)	B-4
Setting the 7857 Modem Connected to COM1 (ASYN)	B-5
Setting the 7857 Modern Connected to MPA Card on COM2 (ASYN)	B-5
Setting the IBM 7858 Modem Connected to MPA Card (SYN)	B-6
Setting the 7858 Modem Connected to COM1 (ASYN)	B-6
Setting the 7858 Modem Connected to MPA Card on COM2 (ASYN)	– • B-6
RSF Modems	B-7
IBM 5858 Modem	B-7

IBM 7855 Modem	B-8
IBM 7857 Modem	B-8
Appendix C. Configuration for a Two-Target Remote Workstation	C-1
NCP Definitions	C-2
VTAM Definitions	C-2
Start List	C-2
Logmode Table	C-2
Switched Major Nodes	C-3
DCAF Remote Workstation Configuration	C-3
Bibliography	X-1
Customer Documentation for the IBM 3745 (Models 210, 310, 410, 610, 21A,	
31A, 41A, and 61A), and 3746 (Model 900)	X-1
Additional Customer Documentation for the IBM 3745 Models 130, 150, 160,	
170, and 17A	X-5
List of Abbreviations	X-1
Glossary	X-3
lader	V 7
index	X-1

# Figures

DCAF Console Attachments 1-2
Modem-Attached Remote Workstation 4-1
NetView Link/Reporting Customization 4-3
DCAF Customization 4-3
APPN Remote Workstation 5-1
DCAF Customization
SNA-Attached Remote Workstation
NetView Link/Reporting Customization
DCAF Customization
Types of TCP/IP Service LAN-Attached Remote Workstations 7-1
APPC Service LAN-Attached Remote Workstation
NetView Link/Reporting Customization
DCAF Customization
Telnet Workstation Configuration
Point-to-Point Protocol Configuration Screen 10-4
Entering Customer and IBM Service Passwords 10-5
Console Configuration for Java Screen 10-6
Modem-Attached Remote Workstation Using Console for Java 11-2
LAN-Attached Remote Workstation Using Console for Java 11-12
A Two-Target Configuration

# Tables

4-1.	Identical Target and Controlling Parameters (APPN)	4-1
4-2.	Settings for Recommended Modems	4-4
4-3.	IBM Modems for Remote Workstations and Target Service	
	Processors 6275, 3172, and 7585	4-5
5-1.	Identical Target and Controlling Parameters (APPN)	5-2
6-1.	Identical Target and Controlling Parameters (SNA)	6-2
8-1.	Identical Target and Controlling Parameters (APPC LAN)	8-2
X-1.	Customer Documentation for the 3745 Models x10 and x1A, and	
	3746 Model 900	X-1
X-2.	Additional Customer Documentation for the 3745 Models 1x0 and	
	17A	X-5

## **Notices**

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only IBM's product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any of IBM's intellectual property rights may be used instead of the IBM product, program, or service. Evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, is the user's responsibility.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the IBM Director of Licensing, IBM Corporation, 500 Columbus Avenue, Thornwood, New York 10594, U.S.A.

## **European Union (EU) Statement**

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM can not accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

## **Electronic Emission Notices**

## Federal Communications Commission (FCC) Statement

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### **Industry Canada Compliance Statement**

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

#### Avis de conformité aux normes d'Industrie Canada

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

#### Japanese Voluntary Control Council For Interference (VCCI) Statement

This equipment is in the 1st Class category (information equipment to be used in commercial and/or industrial areas) and conforms to the standards set by the Voluntary Control Council for Interference by Information Technology Equipment aimed at preventing radio interference in commercial and industrial areas.

Consequently, when used in a residential area or in an adjacent area thereto, radio interference may be caused to radios and TV receivers, and so on.

Read the instructions for correct handling.

#### **Korean Communications Statement**

Please note that this device has been approved for business purpose with regard to electromagnetic interference. If you find this is not suitable for your use, you may exchange it for a non-business one.

#### New Zealand Radiocommunications (Radio) Regulations

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

## **Trademarks and Service Marks**

The following terms, denoted by an asterisk (\*), used in this publication, are trademarks or service marks of IBM Corporation in the United States or other countries:

AIX	OS/2
APPN	PC/AT
CM/2	PC/XT
CS/2	PS/2
DCAF	RETAIN
HPR	S/390
IBM	Softerm
NetView	Tivoli Management Environment (TME)
Nways	VTAM

The following terms, denoted by a double asterisk (\*\*), used in this publication, are trademarks of other companies:

Console for Java Macintosh Windows 95 Windows 98 Windows NT UNIX

## Safety

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<sup>\*1</sup> Telnet, and Console for Java<sup>\*\*</sup>.

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\*)<sup>2</sup>.
- 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.

<sup>&</sup>lt;sup>1</sup> Tivoli Management Environment (TME\*) 10 Remote Control contains the microcode for the Distributed Console Access Facility (DCAF) program.

<sup>&</sup>lt;sup>2</sup> 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.

## World Wide Web

You can access the latest news and information about IBM network products, customer service and support, and microcode upgrade via Internet at the Uniform Resource Locator (URL):

http://www.networking.ibm.com.

## Year 2000 Statement

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<sup>1</sup> 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.

<sup>1</sup> 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, **A**tt **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.

- 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 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).
  - 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	Νο
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 DCAF Controller 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,

Alt		pressed together
-----	--	------------------

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.

Service Processor Menu 🛛 🕅 🕫	
<u>Function</u> Options Help	
Configuration Management	
- Customization	
– 🗀 Customize DCAF Target Settings	
- 🗀 Install 3746 and NNP LIC on SP hard disk	
🖵 🦳 (M) Manage 3745/3746-9x0 Installation/Removal	Ŵ

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

🖄 Service Processor (SP)	Eustomization	
	Cu	View Istomize
Customer Information		1
SP Time and Date		
Service LAN Addresses		
NetView Link/Operation	ıs	×.
🕅 Enable Retain Link/C	)perations	
💥 Enable DCAF Link/Oj	perations	<b>X</b>
" (Italia Canada"), ink/	Opplations its New	662
Screen resolution:	640x480	1
Modern type: IBM 7857/58 on COM1 port 🗾		
<u>Next&gt;&gt;</u>	Help	

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.

NetView Link(s)/Reporting Eustomization		
💹 Generate alerts		
NetView Link(s) Link(s) through? I SNA APPN How many? I I 2 Link type?		
Machine Identification		
Machine type Model Serial number		
3745 🖌 17A 🖌 57 - 97474		
Local Node Characteristics Network ID Local node name SPNETID · MOSSNMVT		
rLAN Link		
TIC2 or TIC3 LAA: 400000632080 hex		
TIC3 RSAP: 🔯 hexadecimal (84-90)		
Customize 3270 sessions? 🕷 Yes 🏼 No		
Switched SDLC Link Telephone Number		
0143457280		
Kext>> Help		

Figure 4-2. NetView Link/Reporting Customization

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

	LV name	Destination address (hexadecimal)	RSAP [hex [04-9C]]
🎆 SNA	DCAFSHA	400000032030	64 💥
🂓 APPN	DCAEAPPH	400000032030	00 <b>%</b>
<b>LAN</b>	DCAFLAN		
SDLC Atta	ched Console		
🕷 SDLC	DCAFSDLC		
Accept an	y incoming calls or	n SP? 🕷 Yes 🚿 No	
	no pumbor 111111	11111	

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	e Workstations and Target Service Processors 6275, 3172, and 7585			and 7585
		Remote Workstation Modem Type			
Service Processol Connection Type and Mode	Service Processor Modem Type	IBM 7857, 7858 <sup>1</sup> , or Hayes <sup>1</sup> AT Compatible Modem Serial Asynchronous Port Connection			
	7857	4-6	4-6	4-6	4-6
COM1	7858 <sup>1</sup>	4-6	4-6	4-6	4-6
	Hayes <sup>1</sup>	4-11	4-11	4-11	4-11
Notes:					
1. For increased	data transfer speed	I, IBM recommends	the IBM 7858 mode	em or a Hayes com	patible 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.

Communic: Requir Requir Requir Requir Requir Cortions	Nions Manager Profile L d SNA Phone Com red SNA Phone Com ed DLC - SDLC ed SNA local node ( red SNA connections al SNA features al SNA popodast 1	ist ect Port Connection Man ect - Connection Manager characteristics	
opiion			
Configure	Close Help		*

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

dodem connection	Asynchronous switched		<b>%</b>
РСМ		Status	
BM 7851 External	Modem	Not configures	
BM 7852 010 V.34	Data/Fax Modem	Not configure	
BM 7852 013 V.34	Commercial Data/FAX M	la Not configure	Configure
BM ASYNUZSULU V BM Miereolootropia	.32 Modem/A a DCMCIA 14 4Khao Data:	Not configure	
DM MICTORIECTIONIC	s PCMCIA 14.4Kops Data	'I NOT CONTIGUIE	
	<i>]]]]]]</i> ]	9	
			an a

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.

Modern connection type	Asynchronous
Port name	COM1
Accept incoming calls	NO
Serial port speed	19200
Local phone number	12345678
Dial prefix string	ATDT

- 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.

Connection Manager Configuration	
Incoming Call Directory Entries	Outgoing Call Directory Entries
	SP123456
Create Ciranga Delete	Create
<u>Close</u> Help	

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

	0 129490	
<u>C</u> urrently Co	nfigured Subfields	
		Change
		<u>D</u> elete
Type of Sub	field to Create	
<u>Type of Sub</u>	field to Create	
Type of Sub Called party	field to Create	Cassare

- 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.

	панирег
Phone number	12345678
OK Cance	Hein

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.

🛫 Local Node Cha	acteristics	
Network ID	MYNETID	
<u>L</u> ocal node name	MYWSID	
Node type		
💓 <u>N</u> etwork node		
🖉 Branch extende	a support	
Lo <u>c</u> al node ID	(hex)	05D 00000
Local no <u>d</u> e alias n	ame	MYWSID
<u>M</u> aximum compres	sion level	NONE
Maximum compres	sion <u>t</u> okens	0 (0 - 30400)
🖋 <u>A</u> ctivate Attach	Manager at s	tart up
<u>Search</u> required		
Optional comment		Local node information
OK NetWare	(R) Can	icel] [Help]

- 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.

ns List ;		
ork node   M To peer node 🎡 To	host	
Adapter	Adapter Number	
Token-ring or other LAN types SDLC	0	
Token-ring or other LAN types	0	
Change	e Help	<i>%</i>
	ns List e ork node Information To geer node Information To Adapter Token-ring or other LAN types SDLC Token-ring or other LAN types SDLC Information Information Information SDLC Token-ring or other LAN types SDLC Token-ring or other LAN types	ns List e brk node To peer node To host Adapter Adapter Token-ring or other LAN types 0 SDLC 0 Token-ring or other LAN types 0 SULC 0 Change

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.

nik name	SP1	23456	Mctivate at startup
djacent node ID (1	hexj		
Partner LV definition	IS		
Partner <u>n</u> etwork ID	SPNETI	D	Define Partner LUs
Pa <u>r</u> tner node name	DCAFSE	)LC	
Permanent connectio	n name		
Permanent connectio	n nama ry entry	SP12345	56

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.

~ CG	mmunications Required *Required Required Required *Required	Manager Profile List SNA Phone Connect - Port Connection Manager SNA Phone Connect - Connection Manager DLC - SDLC SNA local node characteristics SNA connections	
~	Optional Optional	SNA features SNA Dependent LU Server definitions	
	figure	Nose Help	<b>M</b>

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

dodem connection	Asynchronous switche	ed	
РСМ		Status	
200M EVFXV32 Int	ernal Modern	Not configures	
ZOOM EVFPV32bis	Modern	Not configure	
ZOOM EVFPV32bis	Internal Modern	Not configure	Configure
200M VFX 28.8 Ex	ternal Modern	Not configure	
2yXEL U-1496 Seri	ies Universal Modem	Not configure	<u>Osen</u>
			uuuuuuuu a

**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**.

Parameters for User-Defined Asyn Edit the parameters as needed.	chronous Switched Connection Modem
Modern connection type	Asynchronous
Port name	СОМ1
Accept incoming calls	NO
Modem class	Unspecified
Serial port speed	9600
Local phone number	12345678

- 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.

ncoming Call Directory Entries	<u>Outgoing Call Directory Entries</u>
Create Champa Datate	Create Change N Delete

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

😒 Outgoing	Call Directory Entry	
Entry name	SP123456	
<u>C</u> urrently Cor	ifigured Subfields	
		Change
		<u>D</u> elete
Tune of Subf	ield to Create	
Called party	number	
		(Aparo)
OK Ca	ncel Help	

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

<u>Synchronous</u>	
MutoSync	
Asunchronous, para	notore
Asynchronous para Eraming standard	neters ISO3309
Asynchronous para Framing standard Sunchronous/AutoS	neters ISO3309

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.

😒 Called Party	Number
Phone number	12345678
OK Cance	l Help

- 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.

🛫 Local Node Char	acteristics	
Network ID	MYNETID	
Local node name	MYWSID	
Node type 🕷 End node		
∭ <mark>N</mark> etwork node ∭Branch extende	r support	
Lo <u>c</u> al node ID	(hex)	[05D] [00000]
Local no <u>d</u> e alias na	ame	MYWSID
<u>M</u> aximum compress	sion level	NONE
Maximum compress	ion <u>t</u> okens	0 (0 - 30400)
🖋 <u>A</u> ctivate Attach	Manager at s	tart up
∭ <u>S</u> earch required		
Optional comment		Local node information
OK NetWare	(R) Can	cel] [Help]

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.

Name A		Augutei	
	dapter	Number	
DCAFLAN 1	oken-ring or other LAN types	0	
DCAESDLC S DCAESNA 1	iDLC feken-ring or other LAN tupes	U 0	

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.

	SP1	23496	∭ Acti⊻ate at startup	
djacent node ID (I	nexj			
Partner LU definition	s			
<sup>o</sup> artner <u>n</u> etwork ID	SPNETI	D	Define Partner LUs	<b></b>
Pa <u>r</u> tner node name DCAFSDLC				
201110011011 78ho				
	n name			
offoermoor transmoor				
Permanent connection Outgoing call directo	ry entry	SP12345	56	
Permanent connection Dutgoing call directo	ry entry	SP12345	s that are different than	

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.

× Comm *R Re V Re *R	unications I anned quired quired quired tequired tional	Manager Profile List SNA Phone Connect - Port Connection Manager SNA Phone Connect - Connection Manager DLC - SDLC SNA local node characteristics SNA connections SNA features	Ż
Op	tional	SNA Dependent LU Server definitions	

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

Port Connection 1	Manager Configuration		
Modern connection	Asynchronous switche	d	
РСМ		Status	
Hayes ACCURA 288	00 Modem	Not configure	
Hayes OPTIMA 9600 Hayes OPTIMA 1440	J Modem 30 Modem	Not configure	Configure
падез от пля тача	Jo Modelli		
Hayes OPTIMA144	FAX144 Pocket Mode	n Not configure	Delete
Hayes Smartmodem	24UU Modem	Not configure	
		Xa	
			IIIIIIIIIA IMA
<u>C</u> lose Help			

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.

Modern connection type	Asynchronous
<sup>o</sup> ort name	COM1
Accept incoming calls	NO
Serial port speed	57600
_ocal phone number	12345678
Dial prefix string	ATDT

- 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.

coming Call Directory Entries	Outgoing Call Directory Entries
Create Datete	Create Change Delete

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

🛫 Outgoing	Call Directory Entry	
Entry name	SP123456	
<u>C</u> urrently Cor	rfigured Subfields	
		Change
		Delete
<u>Type</u> of Subf	ield to Create	
Colled portu	numbor	
caueu party	number	Capate
<u>O</u> K Ca	ncel Help	

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

Masynchronous	.36~
<u>Synchronous</u>	
Asunchronous narar	neters
Framing standard	IS03309
Synchronous/AutoS	ync parameters
Encoding scheme	Use default

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.

Phone number	12345678	

- 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.

🗠 Local Node Chai	acteristics			
Network ID	MYNETID			
Local node name	MYWSID			
Node type				
∭ <u>N</u> etwork node				
∭ Branch extende	e support			
Lo <u>c</u> al node ID	(hex)	05D 00000		
Local no <u>d</u> e alias n	ame	MYWSID		
Maximum compression level NONE				
Maximum compression tokens 0 (0 - 30400)				
💥 <u>A</u> ctivate Attach	Manager at s	tart up		
<u>Search</u> required				
Optional comment		Local node information		
OK NetWare	(R) ) Can	cel] [Help]		

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.

∭ lo <u>n</u> etw	ork node  🕷 To peer node 🛞 To	host
Link Name	Adapter	Adapter Number
DCAFLAN DCAFSDLC	Token-ring or other LAN types SDLC	0
UCAF SNA	Token-ring or other LAN types	

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.

Connection to a Pe	er Node		
ink name	SP1	23456	🎆 Activate at startup
djacent node ID (I	nex)		
Partner LV definition	S		
Partner <u>n</u> etwork ID	SPNETI	D	Define Partner LUs
Pa <u>r</u> tner node name	DCAFSD	ILC	•••••••••••••••••••••••••••••••••••••••
Permanent connection	3 8888		
Outgoing call directory entry		SP1234	456
o provide unique link	protocol	paramete	ers that are different than
To provide unique link hose specified in the	protocol DLC adap	paramete Iter profi	ers that are different than le, select Override

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 DCAF Controller 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**.

Add a workstation		
Workstation name	ERS1SNA	General
Protocol	Connection	Protocol
	💓 Target	
APPN	Administrator	
Asynchronous	(1.5H Directory)	
NetBIOS	Security	
💓 TCP/IP	* No.	
Undo Help		*
<u>S</u> ave Cancel	Help	

Add a workstation		<u>.</u>
Workstation name	SP123456	General
- Protocol	Connection	Protocol
🏽 APPC	💓 Target	
	Administrator	
Asynchronous     IPX/SPX	1.5N Directory	
MetBIOS	Security	
💓 ТСР/ІР	<i>434//////</i>	
Undo Help		
<u>S</u> ave Cancel	Help	

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).

Add a workstation		
APPO	2	General
	-	
 		Protocol
Local LU alias	CTRESDEC	
	💹 Use CP name	
<b>B</b>		
Partner LU alias	DUAFSDLU	
Mada pama	DCAEMODE	
·······		
 <u>U</u> ndo Help		
	<i>,</i>	
<b>%</b>		
Save Cancel	Help	

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	LU name	
(Figure 5-2 on page 5-3)	(Step 9 on page 5-6)	
APPN Destination address	LAN Destination address	
(Figure 5-2 on page 5-3)	(Step 9 on page 5-6)	
<b>RSAP</b>	Remote SAP	
(Figure 5-2 on page 5-3)	(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.

	Menu Zoren	
Function Uptions	Help	
Configuration	Managem <b>en</b> t	×,
- 🗀 SP Custo	mization	
🛛 🗕 🗀 Customiz	e DCAF Target Settings	
- 🗀 Install 3	746 and NNP LIC on SP hard disk	
📙 🦳 (M) Mana	ge 3745/3746-9x0 Installation/Removal	*

Service Processor (SP)	Eustomization	
	Cu	View stomize
Customer Information		
SP Time and Date		
Service LAN Addresses	:	
NetView Link/Operatio	ns	
∭ Enable Retain Link∕	Operations	
💥 Enable DCAF Link/O	perations	
Cristile Consoler), ink	Opplations in Java	193
Screen resolution:	640x480	Ŵ
Modem type: IBM 7857	/58 on COM1 port	<b>X</b>
<u>N</u> ext>>	Help	

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.

	LV name	(hexadecimal)	(hex [04-9C]
💓 SNA	OCAFSHA	400000632080	04 💥
😹 APPN	DCAFAPPN	400000632080	08 🐩
💓 LAN	DCARLAN		
SDLC Atta	ached Console		
🕅 SDLC	DCAFSDLC		
Accept ar	ng incoming calls o	n SP? 🥑 🕅	
Local pho	ne number: 11111	11111	

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.

<b>1</b> Co	ommunication	s Manager Profile List	
	Required	DLC Taken ring or other LAN types Z SNA local node characteristics	<i>M</i>
Ţ.	Optional Optional	SNA connections SNA Dependent LU Server definitions	
	Uptional	SNA Teatures	×.
Co	nfigure	<u>Close</u> Help	

- 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.

Ø <b>Free unused links</b> ∭Branch extender support Maximum <u>1</u> -field size 2224 (265 - 16393)	Link initialization parameters Link station protocol parameters Network management parameters Resource parameters
Effective capacity (bits pe	er second)
Connection network paran	neters (optional)

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

	Required	DLC - Token-ring or other LAN types	1
	Optional Optional	SNA local nucle characteristics SNA connections SNA Dependent III Server definitions	
	Optional	SNA features	
Co	nfigure	<u>Close</u> Help	

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.

😒 Local Node Char	acteristics	
Network <u>I</u> D	SYSTST	
Local node name	CPCTRL1	
Node type M End node		
🛞 <u>N</u> etwork node		
🖉 Branch extende	r support	
Lo <u>c</u> al node ID	(hex)	05D 00000
Local no <u>d</u> e alias na	me	CPCTRL1
<u>M</u> aximum compress	ion level	NONE
Maximum compress	ion <u>t</u> okens	0 (0 - 30400)
💥 <u>A</u> ctivate Attach	Manager at st	tart up
<u>∭ S</u> earch required		
Optional comment		created on 7/27/97
OK NetWare	R)   (Can	cel] [Help]

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

× Comr	nunications I	Manager Profile List	
	lequired	DLC - Token-ring or other LAN types	
	equireu Iptional	SNA total houe characteristics SNA connections SNA Dependent LU Server definitions	
V O	ptional	SNA features	,
			*
Config	jure	lose Help	

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

Y Connect	tions List		
🕷 To <u>n</u> etv	work node 🛛 🕅	To peer node 🛛 To <u>h</u> ost	<i></i>
Link		Adaptor	
Name	Adapter	Number	
		ar other LAN types B	
Create	Change	Lelete Close Help	

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

🔀 Adapter List
Select the local adapter to be used for this connection.
Adapter Type Tokon-rom on other LAN oppose Ethernet (ETHERAND) network PC Network Twinaxial SDLC SDLC multipoint primary server
Configured     Yes       Adapter number     0       Continue     Cancel

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.

≥/ Connection to a Net	work Node			
Link name	DCAFA	.PPN 🚿 Acti	vate at startup	
Adjecent node ID (h	өк) [[]			
Partner LV definitions	3			
Partner <u>n</u> etwork ID	SPNETID	Defi	ne Partner LUs	
Pa <u>r</u> tner node name	DCAFAPPN	4		
Destination information LAN destination addree 400000502080	on f <b>or</b> netwo ess (h <b>ex)</b>	ork node Address <u>f</u> ormat Token-Ring	Remo <u>t</u> e SAP	(hex)
To provide unique link	protocol pa	rameters that are	e different than	Override

Step 10. Click Close on the intermediate window.

Step 11. Select SNA features and click Configure.

2/ Co	mmunications	lanager Profile List	
	Required	DLC - Token-ring or other LAN types	22
	Required	SNA local node characteristics	
	Optional	SNA connections	
	Optional	SNA Dependent LU Server definitions	
		SYME CONTRACTOR	4
			¥2
Cor	figure	ose Help	

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

<u>F</u> eatures			Definition	Comment
Partner LUs Modes Transaction Transaction Transaction Conversation LU-to-LU s CPI Commun	program defir program defau program secu program security security nications side	itions Jus rily Information	CTRLLAN CTRLSDLC CTRLSNA	Created on 7. Created on 7. Created on 7. Created on 7.

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.

NAU address <u>∭I</u> ndependent LU		
Dependent LU NAU	(1 - 254)	
<u>H</u> ost länk		
Optional LU <u>m</u> odel name		
2011		
<u>guse this local LU as yo</u>	ur detault local LU alias	.]

- 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.

ransaction program (TP) name	IBM.DCAF.CONTROLLING.TRANSACTION.PROC
OS/2 program path and <u>f</u> ile name	C:\DCAF13\EQNCTRAM.EXE
Optional comment	
Optional values	
)ptional values ∭ Progr <u>a</u> m Initialization Parameter	(PIP) allowed
)ptional values     Progr <u>a</u> m Initialization Parameter     Conversation security <u>r</u> equired	(PIP) allowed
Dptional values MProgr <u>a</u> m Initialization Parameter Conversation security <u>r</u> equired Program parameter string	(PIP) allowed

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

[¥ <b>∭</b>	Add a workstation			
			Mb	
	Workstation name	CTRLAPPN	General	
	Protocol	Connection	Protocol	
	💓 APPC	💓 Target		
	💓 APPN	Gateway		
	💓 Asynchronous	AAN Directory		
	💓 IPX/SPX	Securitu		
	💓 NetBIOS	and the second s		
	💓 TCP/IP	# 365		
	Undo Help	· · · · · · · · · · · · · · · · · · ·	•	
	······			
	<u>S</u> ave Cance	l Help		
Inner and the second				////

- 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.

Add a workstation		
AI	PN	General
		Protocol
Local LV alias	CTRLAPPN	
	💹 Use CP name	
Fully	ETID . DCAFAPPN	
	······;	
Mode name	DCAFMODE	
<u>U</u> ndo Help		
	(a)2	
*		
Save 📐 Cancel	Help	

- **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.

🖀 Service Processor Menu 💋 🕬	
<u>Function</u> Options <u>H</u> elp	
Configuration Management	2
- C SP Customization	
– 🗀 Customize DCAF Target Settings	
- C Install 3746 and NNP LIC on SP hard disk	
🕒 🦳 (M) Manage 3745/3746-9x0 Installation/Removal	

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

🖄 🛛 Service Processor (SP)	Eustomization	
	(	View Customize
Customer Information		
SP Time and Date		
Service LAN Addresses		
NetView Link/Operation	IS	M.
∭ Enable Retain Link/C	perations	
💥 Enable DCAF Link/Op	perations	*
Cristile Consoler) ink/	Opplations (its )A	6 52
Screen resolution:	640x480	
Modem type: IBM 7857,	/58 on COM1 port	
<u>N</u> ext>>	Help	

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.

HetView Link(s)/Reporting Eustomization
🎆 Generate alerts
NetView Link(s) Link(s) through? I SNA APPN How many? I 2 Link type?
Machine Identification
3745 17A 57 - 97474
Network ID Local node name SPNETID · MOSSNMVT
LAN Link TIC2 or TIC3 LAA: 400000632080 hex TIC3 RSAP: 14 2 hexadecimal [04-9C] Customize 3270 sessions? 2 Yes 2 kb
Switched SDLC Link Telephone Number
Kerten     Help

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.

	LV name	Destination address (hexadecimal)	RSAP [hex [04-9C]
🖋 SNA	DCAFSNA	400000632080	04
APPN	DCAFAPPN	400000632030	08 🐋
💹 LAN	DCAFLAN		
SDLC Att	ached Console		
💓 SDLC	DCAFSDLC		
Accept ar	ng incoming calls	00 SP3 9969 7969	
Local pho	ne number: 🚺	1311111	

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.

۲ (t	ommunication	s Manager Profile List	
		DLC Taken ring ar other LAN types	11
	Optional	SNA tocat houe characteristics SNA connections	
	Optional Optional	SNA Dependent LU Server definitions SNA features	
			n n n n n n n n n n n n n n n n n n n
Co	nfigure	<u>Close</u> Help	

- 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.

Free unused links	
Branch extender support	Link initialization parameters Link station protocol parameters
Maximum <u>I</u> -field size 2224 (265 - 16393)	Network management parameters Resource parameters
Local <u>S</u> AP (hex) 04 (04 - 9C)	Change
Effective capacity (bits per se 4000000	cond)
	rs (optional)

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

	Communicatio	ns Manager P	ofile List		
	/ Required	DLC - T	ken-ring or other LAN tu	ipes	22
	Optional	SNA coni	ections		
	Optional	SNA Dep	ndent LU Server definiti	ons	
	🖊 Optional	SNA feat	res		
tinini T		······································			
	Configure	<u>C</u> lose	эlр		

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

🛩 Local Node Char	acteristics			
Network ID	SYSTST			
<u>L</u> ocal node name	CPCTRL1			
Node type 💓 End node				
💓 <u>N</u> etwork node				
🖉 Branch extende	a support			
Local node ID	(hex)	05D 00000		
Local no <u>d</u> e alias na	ame	CPCTRL1		
<u>M</u> aximum compress	sion level	NONE		
Maximum compression tokens 0 (0 - 30400)				
<u>∰ A</u> ctivate Attach Manager at start up				
∭ <u>S</u> earch required				
Optional comment		created on 7/27/97		
OK NetWare	(R) Can	cel] [Help]		

Step 6. Select SNA connections and click Configure.

S C	ommunicatio	ns Manager Profile List	
V	Required	DLC - Token-ring or other LAN types	<i>\$</i> 2
	Required	SNA local node characteristics	
	Optional	SNA Dependent LU Server definitions	
	Uptional	SNA teatures	
	- 41 3		11111
	ingureN		

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

Connecti Partner typ	ons List e	<sup>22</sup> To boot	
Link		Adapter	
Name DCAFLAN DCAFSDLC	Adapter Token-ring or other LAN tu SDLC Token-ring or other LAN tu	Number pes 0 0	
£ C <u>r</u> eate	Change	<u>Close</u> Help	M. M.

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

Select the loca	adapter to be used for	this connection
Adapter Type Ethernet (ETHE PC Network Twinaxial SDLC SDLC multipoir	dee All Ages AND) network t primary server	
Configured		
Adapter <u>n</u> umber	0 👔 (0-15)	Configure DLC
Continue 🛌	Cancel Help	

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.

ink name	DCAFSNA	Activate at startup		
djacent node ID - (I	hex)			
Partner LU definition	S			
Partner <u>n</u> etwork ID	SPNETID	Define Partner LUs		
Partner node name DCAFSNA		······································		
Destination informati	on for peer node			
Destination informati LAN destination <u>a</u> ddr 400000502080	on for peer node ess (hex) Ad	dress format Remote SAP (hex) ken-Ring		
Destination informati LAN destination <u>a</u> ddr 400000502080	on for peer node ess (hex) Ad	dress format Remole SAP (hex) ken-Ring		
)estination informati _AN destination addr 400000502080 ) provide unique link ose specified in the	on for peer node ess (hex) Ad To protocol parame DLC adapter pro	dress format Remole SAP (hex) ken-Ring UB eters that are different than Override		

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.

Partner LUs To add a Partner LU, enter the LU name, alias, and comment. Then select Add.					
To change a Partner LU, select an LU from the list, change the LU name, alias, and/or comment fields and select Change.					
To delete a Partner LU, select an LU from the list and select Delete.					
<u>N</u> etwork ID	SYSTST	LV name	Alias		
<u>L</u> V name	DCAFSNA	SYSTST.DCAFSNA	DCAFSNA		
Alias	DCAFSNA				
- Dependent p 	oartner LU .U is dependent				
Uninterpret	Electronic second by	(hange	(Jonata		
Optional <u>c</u> om	iment				
<u>О</u> К 💦 Са	ncel Help				

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

Step 12. Select SNA features and click Configure.

	Communications	Manager Profile List	
V	Required	DLC - Token-ring or other LAN types	M.
	Required	SNA local node characteristics	
	Optional	SNA connections	
	Optional	SNA Dependent LU Server definitions	
			Ŵ
C	onfigure	<u>Close</u> Help	
Step 13. Select Local LUs, CTRLSNA and click Change.

Features		Definition	Comment
Partner LUs Modes Transaction pro Transaction pro Transaction pro Conversation se LU-to-LU secur	gram definitions gram defaults gram securily curity rity	CTRLAPPN CTRLLAN CTRLSDLC	Created on 7. Created on 7. Created on 7.
Transaction pro Transaction pro Conversation se LU-to-LU secur CPI Communica	gram defaults gram security curity rity tions side information		

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

Local L	J <i></i>	
U name	CTRLSNA	
Alias	CTRLSNA	
NAU addro M <u>I</u> ndeper	ess ndent LU	
🛞 <u>D</u> epend	ent LU NAU	[1 - 254]
Host link		
Optional I model r	LU Iame	

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 DCAF Controller icon.
- 3. Click Session and Open workstation directory. Step
- **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.

Workstation name	CT	RLSNA	General Protocol
APPC	Ta ∭Ga	rget Iteway Industrator Al Directory	
IPX/SPX     IPX/SPX     IvtBlos     TCP/IP	Secur	ity s	
<u>Undo</u> Help	\		
Save Car	cel	Help	

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.

Add a workstation		
AP	PC	General
Local LV alias	CTRLSNA	Protocol
	🎆 Use CP name	
Partner LU alias	DCAFSNA	
Mode name	DCAFMODE	
<u>Undo</u> Help		
	<u>یک</u> :	
Save Cancel	Help	

**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/IN	N: PORT 2144	** *
K23C2144 LINE	ADDRESS=(2144,FULL),PORTADD=0,LOCADD=400000232144 MAXTSL=16732,LSPRI=PU,PUTYPE=1,ANS=CONTINUE,	* *
S23C2144 PU	ADAPTER=TIC3,TRSPEED=16,TRANSFR=254 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 \_ PAGEABLELFBUF=(96,,0,,24,10),LARGE GENERAL PURPOSE \_ FIXEDSFBUF=(128,,0,,32,10),SMALL GENERAL PURPOSE \_ FIXEDCRPLBUF=(160,,13,,80,80),RPL\_COPY \_ PAGEABLEIOBUF=(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:

## **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 Х Х MAXPATH=8, MAXDATA=265, MAXOUT=1, DISCNT=NO, CTRI 1 LU LOCADDR=0,MODETAB=SOCMOTAB

### **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 \*-----\* ADDR=04, PUTYPE=2, NETID= SYSTST A , CPNAME= MOSSNMVT PU XC MOSSE MAXPATH=8, MAXDATA=265, MAXOUT=1, Х DISCNT=NO, PATHMOSS PATH DIALNO= P 00 04 40000000007 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.

Service Processor Menu Za 33	
Configuration Management	
– 🗀 SP Customization	
– 🗀 Customize DCAF Target Settings	
– 🗀 Install 3746 and NNP LIC on SP hard disk	
(M) Manage 3745/3746-9x0 Installation/Removal	

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

🖄 Service Processor (SP)	tustomization	
	Cus	View stomize
Customer Information		
SP Time and Date		
Service LAN Addresses		
NetView Link/Operations		
💹 Enable Retain Link/Operations		
Imable DCAF Link/Operations		
🎆 Enable Console Link/	Operations for Java	
Screen resolution: 640x480		<i>M</i>
Modern type: IBM 7857/58 on COM1 port		
<u>Next&gt;&gt;</u>	Help	

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.

SERVICE AN AMOU	25205				
	IP address	Subnet mask	Hostname	UAA/LAA	
Service Processor:	9.100.77.71	255.255.255.0	SP11111	400000631111	
NNP-A:	9.100.77.72	255.255.255.0	CA097474		
NNP-B:	pat installed				
TIC3 2080:	9.100.77.73	255.255.255.0			
SP default router:	9.100.77.1	•			
MAE:	9.100.77.74	255.255.255.0	DA097474		
Do you have a LA	MAE: 9.100.77.74 255.255.0 DA097474 "LAN Manager- Do you have a LAN manager? (2) Yes (2) No C&SM LAN ID: [MOSSE				
K Cerevious	ext>> Help				

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 DCAF Controller icon.
- Step 3. Click Session, then Open workstation directory.

<u>Open Workstation d</u>	irectory 📐 Ctrl+O
Stop a session	<sup>™</sup> Cut+S
Sub a session	- 08445

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**.

Workstation name	XXXXXX	General			
Protocol	Connection	Protocol			
💓 APPC	💓 Target				
💓 APPN	Ligitowog Administrator				
🎆 Asynchronous	🕼 LAN Directory				
💓 IPX/SPX	Security				
NetBIOS					
TCP/IP	£349///////				
*1 <b>*</b>					

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**.

Add a workstation		
TCP/	тсрлір	
Remote host name	XXXXXX	Protocol
Port number	2501	
Security Authenticator-		
Remote hast name		
Part mentior		
Save 📐 Cancel	Help	

**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**.

23/1					
ostname Contig	juration wi	thout a Names	ierver		Network
IP address	Hos	tname			Routing
	S <b>AAAAAAAA</b> SSS		S. M. 3. S. M. 31 S. M.		Hostnames
					Autostart
					General
					Security
1 ook tbround	HOSTS II	st before naio	n to nameserver		Servers
genne on aug		o. co.oro gon.			Socks
Add	<u>C</u> hange	De <u>l</u> ete			Printing
Unda	<u>D</u> efault	Help			Mail
		Hostnar	nes - Page 2 of 2	+ +	
			8		Maa

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.

IP address	9.100.30.127	
Hostname		
Aliases		
Comment		

**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.

Service Processor Menu	
Configuration Management	
– 🗀 SP Customization	
– 🗀 Customize DCAF Target Settings	
– 🗀 Install 3746 and NNP LIC on SP hard disk	
🖵 🦳 (M) Manage 3745/3746-9x0 Installation/Removal	

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

Customer Information       Image: Customer Information         SP Time and Date       Image: Customer Information         Service LAN Addresses       Image: Customer Information         NetView Link/Operations       Image: Customer Information         Image: Enable Retain Link/Operations       Image: Customer Information         Image: Enable DCAF Link/Operations       Image: Customer Information         Image: Customer Information       Image: Customer Information         Screen resolution:       640x480         Modem type: IEM 7857/58 on COM1 port       Image: Customer Information			View Customize
SP Time and Date       Image: Service LAN Addresses       Ima	Customer Information		
Service LAN Addresses A NetView Link/Operations A Enable Retain Link/Operations A Enable DCAF Link/Operations A Creative Consoler Mak/Operations As Asternation A Screen resolution: 640x480 A Modern type: IBM 7857/58 on COM1 port	SP Time and Date		
NetView Link/Operations       Image: Comparison of the Compari	Service LAN Addresses	:	
Imable Retain Link/Operations       Image: Constant of the state of t	NetView Link/Operatio	ns	
Enable DCAF Link/Operations Creater Consoler And/Operations for Advecting to Advect the Consoler And/Operations for Advecting for A	🎆 Enable Retain Link/	Operations	
Chally Console Mak/Operations Na 3Ax6       #         Screen resolution:       640x480         Modem type:       IEM 7857/58 on COM1 port	💥 Enable DCAF Link/O	perations	*
Screen resolution: 640x480	Gratily Consolv ) link	Opelations (in ).	<b>X6</b> [2]
Modern type: IBM 7857/58 on COM1 port	Screen resolution:	640x480	
	Modem type: IBM 7857	/58 on COM1 port	t 🖌
	«		

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.

Generate alerts NetView Link(s)- Link(s) through? How many? Link type?	● SNA ◎ 1 ● € (24)	APPN ¥ 2 × 2	
-Machine Identification Machine type Model Serial number			
Local Node Characteristics Network ID Local node name SPNETID · MOSSNMVT			
LAN Link TIC2 or TIC3 LAA: 400000632080 hex TIC3 DSAC 53 142 box adactional (04.901			
Customize 3270 sessions? Xes No Switched SDLC Link Telephone Number			
Switched SDLC Link Telephone Number			

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.

	LV name	Destination address (hexadecimal)	RSAP [hex [04-9C
💓 SNA	DCAFSNA	400000632080	04 <b>X</b>
💓 APPN	DCAFAPPH	400000632030	08 <b>*</b>
M LAN	DCARLAN		
SDLC Att	ached Console		
🕷 SDLC	DCAFSDLC		
Accept ar	ny incoming calls o	n SP? 🕷 Yes 🚿 No	
Local pho	ne number: 11111	11111	

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 Ecommunications Manager Setup 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.

Definition selection       Select a connection type and a feature to use, and select Configure. Select <u>A</u> dditional definitions        Close when the configuration is complete.				
Workstation Connection Type		Feature or Application		
Takan ting or other AN uppe Ethernet (ETHERAND) network PC Network Twinaxial Asynchronous	~	APPC APIs and 3270 support APPC APIs for 5250 support LUA APIs (and 3270 support) LUA APIs with DLUS CPI Communications		
<b>₽</b>	<u>₽</u>			
APPC APIs (and 3270 support) o	ver Token	ring for communications		

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

<u>*</u> C	ommunication	s Manager Profile List	
	Required	DLC Token ring or other LAN types SNA local node characteristics	M
	Optional	SNA connections	////
	Optional	SNA Dependent LU Server definitions	
$\checkmark$	Optional	SNA features	4
			- MA
Co	nfigure	<u>Close</u> Help	

- 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.

Adapter 0 (0 - 15) Free unused links Free unused links Franch extender support Maximum I-field size 2224 (265 - 16393) Local SAP (hex) 04 (04 - 9C)	Additional parameters Additional parameters IPR parameters Link initialization parameters Link station protocol parameters Network management parameters Resource parameters Resource parameters Change
Effective capacity (bits per sector 4000000         Connection network parameters         Name         OK         Delete	nd) [optional] []]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]]

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

Y Co	mmunication	s Manager Profile List	
	Required	DLC - Token-ring or other LAN types	2
	Optional Optional	SNA connections SNA Dependent LU Server definitions	
	Optional	SNA features	*
	figure	<u>Close</u> Help	

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

🛫 🛛 Local Node Cha	acteristics				
Network ID	SYSTST				
<u>L</u> ocal node name	CPCTRL1				
Node type MEnd node					
💓 <u>N</u> etwork node					
💹 Branch extends	a support				
Lo <u>c</u> al node ID	(hex)	05D 00000			
Local no <u>d</u> e alias n	Local node alias name CPCTRL1				
<u>M</u> aximum compres	Maximum compression level NONE				
Maximum compression tokens 0 (0 - 30400)					
<u> M</u> ctivate Attach Manager at start up					
∭Search required					
Optional comment		created on 7/27/97			
<u>OK</u> Net <u>W</u> are	OK     NetWare(R)       Cancel     Help				

Step 10. Select SNA connections and click Configure.

	mmunication Required	s Manager Profile List DLC - Token-ring or other LAN tupes	
١.	Required	SNA local node characteristics	
	Optional	SNA connections SNA Dependent LU Server definitions	
V .	Optional	SNA features	¥.
			Ma.
Cor	figure	Close Help	

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

🛫 Connectio	ns List						
Choose the type of node to change or create connections to nodes of that type.							
Selecting a partner type will display connections to nodes of that type in the list.							
~Partner typ ∭ To <u>n</u> etwo	Partner type To <u>n</u> etwork node						
Link	tidoptor	Adapter					
Name	маартен	number					
DCAFSDLC DCAFSNA	SDLC Token-ring or other LAN types	0					
Comment							
C <u>r</u> eate	Change 🕅 Delete	e Help					

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

🗹 Adapter List
Select the local adapter to be used for this connection.
Adapter Type
Token-ring or other LAN types Ethernet (ETHERAND) network
PC Network Twinaxial
SDLC multipoint primary server
Configured Voc
Adapter number 0 (0 - 15) Configure DLC
Continue Cancel Help

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.

Partner LU definition	IS	
<sup>p</sup> artner <u>n</u> etwork ID	SPNETID	Define Partner LUs
<sup>o</sup> a <u>r</u> tner node name	DCAFLAN	<b>T</b>
estination informati	ion f <b>or</b> peer	node
estination informati .AN destination <u>a</u> ddr 100000502080	ion for peer ress (hex)	Address format     Remote SAP (hex)       Token-Ring     104

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.

⊻ Partner L	Us					
To add a Pai	To add a Partner LU, enter the LU name, alias, and comment. Then select Add.					
To change a and/or comm	To change a Partner LU, select an LU from the list, change the LU name, alias, and/or comment fields and select Change.					
To delete a l	To delete a Partner LU, select an LU from the list and select Delete.					
<u>N</u> etwork ID	SPNETID	LU name	Alias			
<u>L</u> V name	DCAFLAN					
Alia <u>s</u>	DCAFLAN					
- Dependent p	partner LU U is dependent					
<u>U</u> ninterpreti	ed name		Change Delete			
Optional <u>c</u> om	ment					
Add						
<u>О</u> К 💦 Са	ncel Help					

Step 15. Select SNA features and click Configure.

	Cor	nmunications	Manag	er Profile List	
	V	Required	DLC	- Token-ring or other LAN types	M
	$\checkmark$	Required	SNA	local node characteristics	
		Optional	SNA	connections	
		Optional	SNA	Dependent LU Server definitions	
ģ		lan hinin hille			Ŵ
Į.					
	Cont	ligure	<u>C</u> lose	Help	

Step 16. Click Add and OK.

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

eatures		Definition	Comment
		CTRLAPPN	Created on 7.
Partner LUs Modes		CTRI SDI C	Created on 7
Transaction pro	gram definitions	CTRLSNA	Created on 7.
Transaction pro	gram defaults		
Transaction proj Conversation se	gram security curitu		
LU-to-LU secur	rity		
CPI Communica	tions side information		

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.

CTRLLAN	
ss dent LU	
ent LU NAU	[1 - 254]
U ame	
	CTRLLAN ss dent LU ent LU NAU

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 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.** 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**.

Workstation name	CTRLLAN	General
- Protocol	Connection	Protocol
MAPPC	💓 Target	
🎲 APPN	🕼 Gateway	
쮉 Asynchronous	1.4H Directory	
💓 IPX/SPX	l	
💓 NetBIOS	Security	
∭ TCP/IP	* No	
Undo Help		
annanananti 'anananananti		

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.

Add a workstation		
APPC		General
Local LU alias	CTRLLAN	
Partner LU alias	DCAFLAN	
Mode name	DCAFMODE	
Save Cancel	Help	

- **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 **Ctrl** and **C** 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.

3	SPILICE SO	Menu	
<u>F</u> unction	<u>O</u> ptions	<u>H</u> elp	
🗀 Con	figuration	Management	
	SP Custo	omization	
- 🗀	Customiz	ze DCAF Target Settings	
- 🗀	install 3	746 and NNP LIC on SP hard disk	
	(M) Mana	age 3745/3746-9x0 Installation/Removal	

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.

Service Processor (SP) Eustomization	
) Cui	/iew tomize
Customer Information	
SP Time and Date	
Service LAN Addresses	
NetView Link/Operations	
💹 Enable Retain Link/Operations	
Granic DCAS Viak/Orioratione	
📽 Enable Console Link/Operations for Java	19 <u>8</u>
Screen resolution: 640x480	<b>%</b>
Modem type:	
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**<sup>1</sup> 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**<sup>2</sup> field. (You can also leave the default values.)

Click View/Change Passwords.

Accept any I	ncoming calls o	n SP? 🛞 Yes	🥥 No
Local phone	number: 33 04	92 11 40 00	
	IP Address	Subnet	mask Hostname
PPP Server	192.9.200.7	255.255.	255.0 SSP11111
PPP Client	192.9.200.8	255.255	.255.0
DTE Speed	57600 -	MRU Size	1500
PP Client Lo	igin Customizati	on	
	Custon	ner	IBM Service
User Name	CSP11	111	ISP11111
Password			××××××××
	X1	ow/Change Da	eevuorde

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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> 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.

<u> Mai</u>	inage Passwords
	Enter your management password:
	******
	<b>3</b> i
	OK Cancel Help

- 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.

Accept any	incoming calls on	SP? 🛞 Yes	🖉 No	
Local phone	number: 33 04 9	32 11 40 00		
	IP Address	Subnet	mask	Hostname
PPP Server	192.9.200.7	255.255.	255.0	SSP11111
PPP Client	192.9.200.8	255.255.	255.0	
DTE Speed	57600 💌	MRU Size	1500	
PPP Client Lo	ogin Customizatio			
	Custom	er	IBM Se	rvice
User Name	CSP111	11	ISP11	111
Password			<b>[</b> >>>>>>>	<u></u>
	Vie	w/Change Pa	sswords	

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.

SP:	SP11111	
NNP-A:	CA097474	
NNP-B:		
	Yioy/Shee	a 170 <i>25 9</i> 19 (35

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<sup>1</sup>.
- 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).

<sup>&</sup>lt;sup>1</sup> 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**.

Make New Connection	
	I ype a name for the computer you are dialing: My Connection Select a modem: May Soptima 288 V.34 + FAX + Voice Configure
	< Back Next > Cancel

**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.

Hayes Optima 288 V.34 + FAX + Voice Properties 🛛 ? 🗙
General Connection Options
Hayes Optima 288 V.34 + FAX + Voice
Port Communications Port (COM1)
Speaker volume
Off High
Maximum speed
57600 💌
□ <u>O</u> nly connect at this speed
DK Cancel

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.

Hayes Optima 288 V.34 + FAX + Voice Properties 🛛 🔋 🗙
General Connection Options
Connection preferences
Data bits:
Parity: None
Stop bits: 1
Call preferences
✓ Wait for dial tone before dialing
Cancel the call if not connected within 60 secs
Disconnect a call if idle for more than 30 mins
Port Settings Advanced
OK Cancel

Advanced Connection Setting	s ? X
Use error control     Bequired to connect     Gompress data     Use cellular protocol	Use flow control     Use flow control <u>H</u> ardware (RTS/CTS) <u>S</u> oftware (XON/XOFF)
<u>M</u> odulation type Standard	<b>_</b>
E <u>x</u> tra settings	
🔲 Rec <u>o</u> rd a log file	
	OK Cancel

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**.

Hayes Optima 288 V.34 + FAX + Voice Properties 🛛 ? 🗙
General Connection Options
Connection control
Bring up terminal window after dialing
Dial control
Operator assisted or <u>m</u> anual dial
Wait for credit card tone: 0 🚖 seconds
C Status control
✓ Display modem <u>s</u> tatus
OK N Cancel
**Step 7.** Enter the phone number of the service processor modem. Click **Next** then **Finish**.

Make New Connection	
	Type the phone number for the computer you want to call:         Area code:       Ielephone number:         33       •       0492116106         Country code:       France (33)       •
	< <u>B</u> ack Next > N

- 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.

My Connection ? 🗙
General
In the second se
Phone number:
Area code: Telephone number:
- 0492116106
Country code:
France (33)
Use country code and area code
Connect using:
Hayes Optima 288 V.34 + FAX + Voice 💌
Configure Server Type
OK Cancel

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.

Server Types ? X
Type of Dial-Up <u>S</u> erver:
PPP: Windows 95, Windows NT 3.5, Internet
Advanced options:
Log on to network
Enable software <u>c</u> ompression
Require encrypted password
Allowed network protocols:
□ <u>N</u> etBEUI
PX/SPX Compatible
ICP/IP     TCP/IP Settings
OK Cancel

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.

IP <u>a</u> ddress:	0.0.0.0
) S <u>e</u> rver assigned n	ame server addresses
7 Specify name serv Primary DNS:	er addresses
Secondary DNS:	0.0.0.0
Primary WINS:	0.0.0.0
Secondary WINS:	0.0.0.0
- 6	

**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.

ਛ ≝ © Connect To	? ×
Hy My	Connection
<u>U</u> ser name:	CSPXXXX
<u>P</u> assword:	******
	Save password
Phone <u>n</u> umber:	0492116106
Dialing from:	france  Dial Properties
	Connect N Cancel

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

a د Conne	×	
	Status: Dialing	Cancel

- **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**.

≣e Conn ≝	ected to My Connection	- 🗆 ×
	Connected at 28800 bps Duration: 000:01:08	Dis <u>c</u> onnect

## 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 Dialer

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

© IBM <u>C</u> onnec	Dial-U tion C	p for TCP/IP onfigure <u>H</u> el	)	
P.				Ø
Dia	l	Add Entry	Modify Entry	Remove Entry
Dial Prefix	Curren	t Connection		_
Name	,	Login I	D	Description
🎆 Enat	ole Debu	Ig		
Stat	US			

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.

×Name:	3745Com	Mittan and a start and a start
Description:	Connect SP	Login lato
Login ID:	sp01234	Connect Int Second Info
Password:	xxxxxx 💥 Require	d Modern Inf
Phone Number:	,0,0492114207	
Login Sequence:	NONE	
Connection Type	🕼 SLIP 🕷 PPP	1
Inactivity Timeou Minutes to Wait I	ut Option Before Automatic Hangup: 15	
	<u>Help</u> (x = required field)	
	Page 1 of 4 -	<u>n</u>

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.

		Login Int
Your IP Address:		Connect Info
Destination IP Address:		Server Info
Netmask:		Modern Info
*MRU Size:	1500	
	📓 VJ Compression	
*Domain Nameserver:	9.100.40.40	
Your Host Name:	pscfranoux	
*Your Domain Name:	lagaude. ibm. com	
Help	(x = required field)	

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.

м	odem Type:	Hayes Compatible		Logia Info
	Com Part:	[cum1	1	<u>C</u> onnect Info
SI	wed (Baud):	57600	* *	Server Info
	Data Bits:	8		Madern Into
Made Made	Parity:	NONE		
🍏 Answer	Prefix:	ATDT		
Initializat	ion String 1:	AT&F		
Initializat	ion String 2:	ATEDQOS0=0V1X1&C	:1&D	
~Call Waitin III Die	gsable	Disable Sequence: 27	0	
	<u>H</u> e	l <b>p</b>		
		Page	anta e	

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 Network Dialer .

**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.

IBM Dial- Connection	Up for TCP/IP Configure <u>H</u> eb	9 <b>69999</b> 99	•
	ð		Ø
Dial	Add Entry	Modify Entry	Remove Entry
Dial <sup></sup> Curre Prefix	nt Connection…		
Name	Login I	D	Description
Enable Del	pug		
- Status			

- 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**.

æ; IBM <u>C</u> onnec	Dial-U tion C	lp for TCP/IP Configure <u>H</u> elp	)	
		ð		Ø
Hang-	Up	Add Entry	Modify Entry	Remove Entry
Dial	- Curren	t Connection	Time Online:	00:00:00
Prefix	Tryin	g 3745Com		
	Total	Time Online:	0 day	(s), 00:00:00
Name		Login I	D D	escription
066	(o Dah	W/		
nol inf inf sla	us lice:L o :T o :Cu ttach V	inking: ppp0 < ime critical pr onnecting with ersion 2.0 Rev	> com1 iority level 1 <slattach (<br="" at&f="">ision: 1.4a 01 l</slattach>	DK ATEOQOS Feb 1995 11

# **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

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.

嶽Ri	dax Ja	ava Clier	nt - Nets	cape				-	
<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	<u>G</u> o <u>C</u>	ommunic	ator <u>H</u> e	lp			
	¢.	<u>ک</u>	2		ø	÷	ä,	s.	Ν
<u> </u>	lack	Forward	Reload	Home	Search	Guide	Print	Security	
ē 🔌	🎉 🖁 Bo	okmarks	🥼 Loo	ation: http:	://9.100.7	7.71:7787	/java		-
š 🖪	l Inter	net 📹	Lookup	📹 New	/&Cool				
Enter	user IL	) and pas	sword to I	ogon					
User	ID	CSPXXX	~~						
Pass	word	******							
				ſ	кd				
				_					
									-
ď			Applet J	ava2You.9	Start runnin	g 🗏 💥	, C.,	<u>s</u> p 4	

Step 4. The MOSS-E View screen displays.

Bidax Java Client licensed by IBM 4998FR0389 / #7012-8 Actions Settings Keys	3011 _ 🗆 🗙
HOSS-E View      Program Window Information Help      Logged in product engineer mode      BS8 863E      Service Processor: PU MOSSNMVT      Service Processor: PU MOSSNMVT	BSB 863F Function 0 ↑ Config ↑ Proble ↑ Operat ↑ Netwo ↑ Multia ↑ Changu ↑ Service P Function 0 ↑ Config
Java Applet Window	

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

🦉 Ridax Java Client li	censed by IBM 4998FR0389 / #7012-	8011 _ 🗆 🗙
Actions Settings	Keys	
Chat Task List HTTP File Server Exit Desktop Disconnect Reboot	Information Help product engineer mode	BS8 863E <u>Function 0</u> <sup>↑</sup> Config <sup>↑</sup> Proble <sup>↑</sup> Operat <sup>↑</sup> Netwo <sup>↑</sup> Multia
Service Processor	: PU MOSSNMVT	Change Change Service P Function 0 Config

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.

🧱 Ridax Java Client licensed by IBM 4998FR0389 / #7012-8011 📃 🗖	×
Actions Settings Keys	
Q     MOSS-E V     BS8 863E / 3746 - 9x0 / Menu     Image: Comparison of the point of the p	Ĺ
-BS8 863E - CCM - Control Points on NNPs - CCM - Controller Configuration a - Connect To an NNE	ľ
-Service Pro	
Service Function	g -
Java Applet Window	-

**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

**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**

🦉 Ridax Java Client li	censed by IBM 4998FR0389 / #7012-	8011 _ 🗆 🗙
Actions Settings	Keys	
Chat K Task List	Information Help	BS8 863E /
Exit Desktop	product engineer mode	
Disconnect Reboot		

### Chat

👹 Chat window	- 🗆 ×
Past conversation	
CLIENT> calling host	
Edit line	
	Send Exit
Java Applet Window	

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.

🦉 Ridax Java Client lic	ensed by IBM 4998FF	10389 / #7012-	8011 <u>- 🗆 ×</u>
Actions Settings	Keys		
Q MOSS-E View <u>Program Window</u> Logged in -BS8 863E	F1 <sup>VS</sup> F10 F11 Escape Alt F4 Ctrl Alt Del (NT) Alt Down	de	BS8 863E / Function Opt - (M) - (M) - (C) Ma - (C) - (C) - (D) -

**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

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

🦉 Ridax Java Client lie	censed by IBM 4998FR0389 / #7012 💶 🗖 🗙
Actions Settings	Keys
Chat Task List HTTP File Server	Information Help product engineer mode
Exit Desktop Disconnect Reboot	
	Image: Solution of the soluti
Service Processor:	: PU MOSSNMVT nfiguration
Java Applet Win	

**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.

氎Bi	idax Fil	e Trans	fer Wel	Server -	Netsca	pe			- 🗆 🗙
<u>F</u> ile	<u>E</u> dit	<u>V</u> ie₩	<u>G</u> o <u>(</u>	<u>Communica</u>	ator <u>H</u>	elp			
Ť	<u>ک</u>	<u>ک</u>	2	<u></u>	all.	4		ച്	N
E	3ack	Forward	Reload	Home	Search	Guide	Print	Security	
i 🖌	🎉 🖁 Boo	okmarks	🧶 Lo	cation: ArZC	RfxHB@	9.100.77.7	1:7785/0	J*K:\0S2Y	00 🖵
T. E	🕽 Interr	net 📠	Lookup	Mew8	Cool				
<u></u>	20-90	, <del>11.</del> .	7	30310	T IFD2	.100.EA	-		
05-	28-98	3 14:3	6	5005	FTPRE	CSET.EXH	2		
05-	28-98	3 14:3	7	9392	FTPSH	HOW.EXE			
05-	28-98	3 14:4	0	191	HAZEI	PRM			
05-	28-98	3 14:4	2	191	IBM31	LO1.PRM			
05-	29-98	09:0	1	32934	JAVA2	YOU.JA	2		
05-	28-98	3 14:4	5	364	JAVAN	IAP.BAT	հ		
05-	28-98	3 14:4	8	219	K1FII	TER.CO	М		<b>_</b>
٩Ľ			-				-		
ď			http://d	wXigugueu:	sArZQRf	xHI≣ -‱	. 🕒	de s	l 11.

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:\JAVA0S2\LIB. (The file size is 32 Kb.)

Save As					?	×
Save jn:	🚞 Lib	•	£	<u>الله</u>	6-6- 6-6- 6-6-	
Eile name:			_		Save .	1
Save as type:	All Files (*.*)		<b>.</b>		Cancel	5

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

///0185		KIQKIS			
C:∖>cc	onnect	9.100.	.57.96		

NNP). Then press

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

👹 Ridax R	emote Control Logon 🛛 🗙
User ID	SP11111
Password	*****
	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



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

👹 Ridax R	emote Control Logon	
User ID	SP11111	
Password	******	
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.

Ridax Java Clie Actions Settings	ent licensed by IBM 4998FR0389 / #701 Keys	- 🗆 X
Chat Task List File Manager Exit Desktop Disconnect Reboot	In product engineer mode	<b><u>Eunctic</u></b> <u>– C</u> – C – C
Service Proce	ssor: PU MOSSNMVT	

**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.

👹 File Manager			×
Local:	ChDir	Remote:	
Cit		K3	
I.J. [WINDOWS] [Program Files] [RECYCLED] [psp] BOOTLOG.TXT COMMAND.COM SUHDLOG.DAT MSDOS.SYS MSDOS SETUPLOG.TXT CONFIG.WIN DETLOG.TXT CONFIG.WIN DETLOG.TXT NETLOG.TXT CONFIG.SYS AUTOEXEC.BAT SYSTEM.1ST IO.SYS BOOTLOG.PRV		[S3TRIO64] 05F2285.ECK 43G3438.ECK ACC144.PIF COPYRIGH.DAT DCAF.INI DCAF.ONF.RSP DEFAULT.PIF EQN.MSG EQN32GRE.DLL EQNCD.ULL EQNCD.ULL EQNCD.ULL EQNCM01.DLL EQNCM02.DLL EQNCM03.DLL EQNCM03.DLL EQNCM03.DLL EQNCM04.DLL	•

**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.

👹 File Manager			×
Local:	ChDir	Remote:	
CA		K3	
I] [WINDOWS] [Program Files] [RECYCLED] [psp] BOOTLOG.TXT COMMAND.COM SUHDLOG.DAT MSDOS.SYS MSDOS SETUPLOG.TXT CONFIG.WIN DETLOG.TXT NETLOG.TXT NETLOG.TXT CONFIG.SYS AUTOEXEC.BAT SYSTEM.1ST IO.SYS BOOTLOG.PRV	×	[S3TRIO64] 05F2285.ECK 43G3438.ECK ACC144.PIF COPYRIGH.DAT DCAF.INI DCAF.CONF.RSP DEFAULT.PIF EQN.MSG EQN32GRE.DLL EQNCD.DLL EQNCD.DLL EQNCCHOT.DLL EQNCCM01.DLL EQNCM00.DLL EQNCM02.DLL EQNCM03.DLL EQNCM04.DLL	4

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:

- 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 **Ctrl** and press **b** 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)	24001
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.

<sup>&</sup>lt;sup>1</sup> 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 **b** 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 <sup>1</sup>
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 Enter
- 7. Use the arrow keys to highlight Save data.
- 8. Press the spacebar to save the configuration.
- 9. Hold down **Ctrl** 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 the **Setup** menu.

## Key F1 (QUICK)

Emulation=3151 Enhanced=OFF N/A Comm Mode=FULL BLOCK Host/Printer=EIA/AUX

EIA	Baud	Rate=24001	
AUX	Baud	Rate=2400	
Language=US			

Enhanced=OFF N/A

Auto Scroll=ON

Bell Vol=06

Setup Lang=US

EIA Data Format=7/1/E Aux Data Format=7/1/E Sessions=ONE

Auto Wrap=0N

Sessions=ONE

Viewports=ONE

Key Mode=ASCII

Key Rate=20 CPS

Caps Lock=TOGGLE

Screen Video=NORMAL

Overscan Borders=ON Refresh Rate=71 HZ

Monitor Mode=OFF

Warning Bell=ON

## Key F2 (GENERAL)

Emulation=3151 Curs Dir= LEFT TO RIGHT Screen Saver=OFF Bell Length=140ms

### Key F3 (DISPLAY)

Display Cursor=ON Cursor=STEADY BLOCK Pages=01 Columns=80 Width Change Clear=OFF Speed=FAST

Page Length=24 Scroll=JUMP

#### Key F4 (KEYBOARD)

Language=US Char Set=NATIONAL Keyclick=0FF Key Repeat=ON Margin Bell=OFF Key Lock=CAPS Num Lock=TOGGLE

### Key F5 (KEYS)

Return Key=field Send Key=PAGE Desk Acc=ctrl <-UDKS=EMUL DEPENDENT Enter Key=RETURN Insert Character=MODE Pound Key=US

New Line=CR Backspace=BS BS Return Key REPEAT=OFF

Key F6 (PORTS)

EIA Baud Rate=24001	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 <sup>2</sup>	EIA Recv= Xon-Xoff(XPC) <sup>2</sup>	EIA Xmt Pace= Baud
Aux Xmt=Xon-Xoff	Aux Recv= Xon-Xoff(XPC)	Aux Xmt Pace= Baud

Key F7 (HOST)

<sup>2</sup> No Protocol for remote consoles.

<sup>3</sup> HALF BLOCK for remote consoles.

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

# **Closing the Console Configuration**

- 1. Hold down **Ctrl** and press **b** 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 <sup>1</sup>
Parity	EVEN
Turnaround Character	DC3
Stop Bit	14
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.

<sup>4 2</sup> 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 log size		
Error log overflow option		
Message log file name		
Message log size		
Message log overflow option		
Enable auto-start options		

ERROR.DAT (for example) 16 (for example) WRAP MESSAGE.DAT (for example) 500 (for example) WRAP 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 codexxx(where xxx is your country code)Profile nameCOM1

- 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).

YES

- 22. Press
- 23. Customize the profile as follows:

Null suppression

Communication port name	COM1
(same as port profile name)	
Emulation mode Line speed Bits per character Parity type Number of stop bits Local display Auto return Enter key Line ending control	IBM 3101 24001 7 EVEN 14 NO YES CR/LF YES
24. Press F8 and enter the following:	DC3
Scrolling	NO
Mode	BLOCK

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 <u>Enter</u>. The message **The profile has been saved** displays.
- 29. Press **Esc** twice to display the Communications Configuration menu.
- 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
- Step 4. Type cd\ and press
- Step 5. Type a:\install and press
- 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  $\Rightarrow$  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.  $\Rightarrow$  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.  $\Rightarrow$  window Terminal Emulation
- Step 3. In the terminal types list, select 3101-2X and click OK.  $\Rightarrow$  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:

- 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**.
  - $\Rightarrow$  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.  $\Rightarrow$  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.

#### $\Rightarrow$ 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  $\Rightarrow$  window Add Session Untitled, click Add.  $\Rightarrow$  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.
- 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
  1 A
                    -
                    _
  2A
                              -
  3A
                    -
                              -
  4A
                          ENABLED
DISABLED
  5A
           ==>
                Е
                                                                 40
                  D
  5B
           ==>
                                                                 41
                  D
                              DISABLED
                                                                 42
  7A
            ==>
  88
- 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	Up to 35 m (115)	6147	26F1799	03F5026
	Length	Up to 122 m (400)	NA	26F1799	03F5026
210/310/410/610	Variable	Up to 35 m (115)	5826	34F1262	65X8984
	Length	Up to 122 m (400)	NA	34F1262	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	Up to 13.5 m (45)	6148	03F5027
	Length	Up to 122 m (400)	NA	03F5028
210/310/410/610	Variable	Up to 13.5 m (45)	6153	03F4404
	Length	Up to 122 m (400)	NA	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).
- 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

- 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 0nly, 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 0nly'.
- Press and release the ↑ or ↓ button as needed to change the display to 'First Setup'.
- 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  $\rightarrow$  button. The modem displays: 'View Only'.
  - c. Press the ↓ button twice. The modem displays: 'Quick Customize'.
  - d. Press the  $\rightarrow$  button. The modem displays: 'DTE interface'.
  - e. Press the \$\u00e4 button twice. The modem displays: 'PSN Telco speed'.
  - f. Press the  $\rightarrow$  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

- Press both the ← and → buttons on the front panel of the modem. The modem displays the message '<Exit Enter>'.
- 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  $\rightarrow$  button to display 'Store and View'.
- 6. Press the  $\rightarrow$  button to display 'Directories xx'.
- Set the target service processor phone number with the ↑ and ↓ buttons. Switch to the next number with the → button.
- 8. Press the  $\leftarrow$  button 8 times to exit.

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

- 1. Press the  $\downarrow$  key until the 'CONFIG' message displays at the top of the screen.
- Press the → key until the 'Sel Factory' message displays at the bottom of the screen.
- 3. Press Enter.
- 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  $\rightarrow$  key until 'Sync mode 3' displays. Press **Enter** to validate.
- 8. Press the ↑ key until 'U2' displays.
- 9. Press the  $\rightarrow$  key until 'Internal' displays. Press **Enter** to validate.
- 10. Press the ↑ key until 'U3' displays.
- 11. Press the  $\rightarrow$  key until 'Autobaud' displays. Press **Enter** to validate.
- 12. Press the ↑ key until 'U4' displays.
- 13. Press the  $\rightarrow$  key until 'CCITT' displays. Press **Enter** to validate.
- 14. Press the ↑ key until 'U5' displays.
- 15. Press the  $\rightarrow$  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.
- Press the → key until 'Auto Reliable/V42/MNP' displays. Press Enter to validate.
- 20. Press the ↑ key until 'U8' displays.
- 21. Press the  $\rightarrow$  key until 'Xon/Xoff passed' displays. Press **Enter** to validate.
- 22. Press the ↑ key until 'U9' displays.
- 23. Press the  $\rightarrow$  key until 'Xon/Xoff' displays. Press **Enter** to validate.
- 24. Press the ↑ key until 'U10' displays.
- 25. Press the  $\rightarrow$  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  $\rightarrow$  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  $\rightarrow$  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  $\downarrow$  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  $\downarrow$  key until 'Store phone number' displays at the top of the screen.
- 2. Press the  $\rightarrow$  key to select the first location number.
- 3. Press Enter.

- 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  $\downarrow$  key until the 'CONFIG' message displays at the top of the screen.
- 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  $\rightarrow$  key until '9600bps V32' displays. Press **Enter** to validate.
- 8. Press the ↑ key until 'U7' displays.
- 9. Press the  $\rightarrow$  key until 'Xon/Xoff Passed' displays. Press **Enter** to validate.
- 10. Press the ↑ key until 'U8' displays.
- 11. Press the  $\rightarrow$  key until 'Xon / Xoff' displays. Press **Enter** to validate.
- 12. Press the ↑ key until 'U10' displays.
- 13. Press the  $\rightarrow$  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  $\rightarrow$  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  $\downarrow$  key until the 'CONFIG' message displays at the top of the screen.
- 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  $\downarrow$  key until 'Store phone number' display at the top of the screen.
- 2. Press the  $\rightarrow$  key to select the first location number.
- 3. Press Enter.
- 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
LFBUF=(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', RUSIZES = X'8787', PSNDPAC = X'08', PSERVIC = X'06020000000000000002F00'

#### **Switched Major Nodes**

```
MAJNODE FOR CONNECTION : CONTROLLING <==> NETVIEW V2R3
*
4
DCAFCTRL VBUILD TYPE=SWNET,MAXGRP=1,MAXNO=1
         ADDR=04, PUTYPE=2, NETID=SYSTST 1, CPNAME=CPCTRL 2,
CPCTRL
     PU
                                           Х
         MAXPATH=8,MAXDATA=265,MAXOUT=1,
                                           Х
         DISCNT=NO
CTRL1
     LU
       LOCADDR=0,MODETAB=SOCMOTAB
MAJNODE FOR CONNECTION : MOSS-E ERS1 <==> NETVIEW V2R3
*
                                           *
NTVERS1 VBUILD TYPE=SWNET,MAXGRP=1,MAXNO=1
*-----*
         ADDR=04,PUTYPE=2,NETID=SYSTST 10,CPNAME=CPERS1 23,
CPERS1 PU
                                           Х
         MAXPATH=8,MAXDATA=265,MAXOUT=1,
                                           Х
         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
*-----
         ADDR=04, PUTYPE=2, NETID=SYSTST 10, CPNAME=CPBS12 22, X
CPBS12 PU
         MAXPATH=8,MAXDATA=265,MAXOUT=1,
                                           χ
         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.

¥.	Add a workstation		
	Workstation name	ERSISNA	General
	Protocol	Connection	Protocol 📐
		💓 Target	
	🎆 APPN	Gateway Administrator	
	Asynchronous	71.4H Directory	
	MetBIOS	Security	
	💓 ТСР/ІР	£36]/////	
			•
	<u>S</u> ave Cancel	Help	

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

Step 6. Enter ERS1SNA in the Workstation name field and click Protocol.

Add a wor	kstation		
	APPC		General
Local LV	alias	CTRL1	Protocol
		www.use.cp.name	
Partner L	U alias	ERS1SNA	
Mode narr	e	DCAFMODE	
<u>U</u> ndo	Help		
<u>S</u> ave	Cancel	Help	

- 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 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 f	or Operation			
	GA33-0400	IBM 3745 Communication Controller All Models <sup>3</sup> IBM 3746 Nways Multiprotocol Controller Models 900 and 950		
		Safety Information <sup>1</sup>		
		Provides general safety guidelines.		
	SA33-0129	IBM 3745 Communication Controller All Models <sup>3</sup> IBM 3746 Nways Multiprotocol Controller Model 900		
		Connection and Integration Guide <sup>1</sup>		
		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 <sup>3</sup> IBM 3746 Nways Multiprotocol Controller Model 900		
		Console Setup Guide <sup>1</sup>		
		Provides information for:		
		<ul> <li>Installing local, alternate, or remote consoles for 3745 Models 130 to 610</li> <li>Configuring user workstations to remotely control the service processor for 3745 Models A and 3746 Model 900 using:         <ul> <li>DCAF program</li> <li>Telnet Client program.</li> </ul> </li> </ul>		
Customizing Your Control Program				
	SA33-0178	Guide to Timed IPL and Rename Load Module		
		Provides VTAM procedures for:		
		<ul><li>Scheduling an automatic reload of the 3745</li><li>Getting 3745 load module changes transparent to the operations staff.</li></ul>		
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 <sup>4</sup>			
		Basic Operations Guide <sup>1</sup>			
		Provides instructions for daily routine operations on the 3745 Models 130 to 610.			
	SA33-0177	IBM 3745 Communication Controller Models A <sup>2</sup> IBM 3746 Nways Multiprotocol Controller Model 900			
		Basic Operations Guide <sup>1</sup>			
		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 <sup>3</sup>			
		Advanced Operations Guide <sup>1</sup>			
		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 <sup>5</sup>			
		Explains how to use CCM and gives examples of the configuration process.			
Managing I	Problems				
	SA33-0096	IBM 3745 Communication Controller All Models <sup>3</sup>			
		Problem Determination Guide <sup>1</sup>			
		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:			
		<ul> <li>IBM 3745 Communication Controller Models A<sup>2</sup></li> <li>IBM 3746 Nways Multiprotocol Controller Models 900 and 950.</li> </ul>			

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 A² 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:						
	<ul> <li>IBM 3745 Communication Controller Models A<sup>2</sup></li> <li>IBM 3746 Nways Multiprotocol Controller Models 900 and 950.</li> </ul>						
<sup>1</sup> Documentation shipped with the 3745.							
<sup>2</sup> 3745 Models 17A to 61A.							
<sup>3</sup> 3/45 Models 130 to 61A.							
5 Documentation shipped with the 3746-000							
Documentation snipped with the 5140 500.							

# 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:					
	Books				
Finding Information					
SA33-0	IBM 3745 Communication Controller Models 130, 150, 160, 170, and 17A IBM 3746 Expansion Unit Model 900				
	Customer Master Index <sup>1</sup>				
	Provides references for finding information in the customer documentation library.				
Evaluating and Con	figuring				
GA33-0	138IBM 3745 Communication ControllerModels 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					
GA33-0	140IBM 3745 Communication ControllerModels 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.				
<sup>1</sup> Documentation shipped with the 3745.					

# List of Abbreviations

ac	Alternating Current	IP	Internet Protocol
ACF	Advanced Communications Function	IPL	Initial Program Load
APPC	Advanced Program-to-Program	ISDN	Integrated Services Digital Network
APPN	Communication Advanced Peer-to-Peer Networking	ITU-T	International Telecommunications Union-Telecommunications
AUI	Attachment Unit Interface		(Formerly: CCITT)
BAN	Boundary Access Node	LAN	Local Area Network
BNN	Boundary Network Node	LAPS	LAN Adapter Protocol Support
bps	bits per second	LIC	Line Interface Coupler
Bps	Bytes per second	LU	Logical Unit
BSC	Binary Synchronous Communication	m	meter; 1.09 yards; 3.28 feet; 39.37
ССМ	Controller Configuration and		inches
	Management	MAC	Medium Access Control
CCITT	Comité Consultatif International	MAE	Multiaccess Enclosure
		MAU	Multistation Access Unit
	Telephone Consultative Committee	Mbps	Megabits per second; 1 048 476 bits per second
	(Now: ITU-T)	МСА	MOSS Console Adapter
СМ	Communications Manager	MOSS	Maintenance and Operator Subsystem
СР	Control Point	MOSS-E	Maintenance and Operator
CSD	Corrective Service Diskette		Subsystem-Extended
DCAF	Distributed Console Access Facility	MPA	Multi-protocol Adapter
DLC	Data Link Control	MPTS	Multiple Protocol Transport Services
DNNP	Dual Network Node Processor	NCP	Network Control Program
DTE	Data Terminal Equipment	NDF	Network Definition File
EC	Engineering Change	NN	Network Node
ECL	Error Checking Link	NNP	Network Node Processor
EIA	Electronic Industries Association	NPM	NetView Performance Monitor
ES	Extended Services	NZRI	Non-Return-to-Zero Inverted
ESCON	Enterprise System Connection	NTS	Network Transport Services
FCC	Federal Communications Commission	os	Operating System
HPR	High Performance Routing	PE	Product Engineer
IBM	International Business Machines	PLU	Partner Logical Unit
IDE	Internet Protocol Definition File	PPP	Point-to-Point Protocol
IML	Initial Microcode Load	PRPQ	Programming Request for Price Quotation

PS	Personal System	TCP/IP	Transmision Control Protocol/Internet Protocol
PU	Physical Unit		
RAM	Random Access Memory	TIC	Token-ring Interface Coupler
RETAIN	Remote Technical Assistance Information Network	TP	Transaction Program
		URL	Uniform Resource Locator
RSF	Remote Support Facility	VCCI	Japanese Voluntary Control Council for Interference
RTS	Ready To Send		
SAP	Service Access Point	VGA	Video Graphics Adapter
SDLC	Synchronous Data Link Control	VTAM	Virtual Telecommunications Access Method
SNA	Systems Network Architecture	WAN	Wide Area Network
SPAU	Service Processor Access Unit		

# 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.

# Index

# **Numerics**

3151

in 3101 emulation mode A-3
in native mode A-2

3153 in 3151 emulation mode A-5
3161 A-6
3163 A-6
7427 A-17

# Α

access from DCAF remote workstation 3-1 adapters for 3745 consoles A-16 alternate console (3745) A-16 APPC LAN-attached DCAF workstation 1-3, 8-1 APPN-attached DCAF workstation 1-2, 5-1 attached DCAF workstation via APPN backbone 1-2, 5-1 via LAN (APPC-type) 1-3, 8-1 via modem 1-2, 4-1 via SNA backbone 1-3, 6-1 via TCP/IP 1-3, 7-1 attached Telnet workstation via TCP/IP 9-1

# С

cable 3745 alternate console A-16 3745 local console A-15 adapters for 3745 consoles A-16 to modem for 3745 remote console A-18 closing DCAF remote session 3-2 Telnet remote session 9-2 configuration 4-4 DLC for DCAF 2-2 modem B-7 configuration file I7857ASY 4-11 configuring workstation modems 4-4 console 3151 A-2 3153 A-5 3161 A-6 3163 A-6

console (continued) attachment alternate A-16 local A-15 remote A-18 RSF A-18 through 7427 A-17 Console for Java attachment 1-1 DCAF attachment 1-2 IBM PS/2 A-6 Telnet attachment 9-1 Console for Java program support 2-1 Console for Java workstation installation 2-1 CS/2 and CM/2 customizing 2-1 program support 2-1 customer Telnet consoles 9-1 customizing CS/2 on a DCAF remote workstation 2-2 customizing DCAF for a modem

# D

DCAF 4-21 APPC LAN-attached workstation 8-1 APPN-attached workstation 5-1 closing a remote session 3-2 hardware requirements and recommendations 1-5 hot keys 1-3 installing 2-1 Modem-attached workstation 4-1 program support 2-1 programming requirements 1-4 remote logon password 1-4 security level 1-4 service processor security 1-4 SNA-attached workstation 6-1 starting a remote session 3-1 target service processor NCP definitions 6-12 VTAM major node definitions 6-14 DCAF *(continued)* TCP/IP-attached workstation 7-1 definitions NCP for DCAF 6-11 VTAM logmode table 6-13 major node for remote workstation 6-14 major node for target service processor 6-14 start 6-13 determining the OS/2 code level 2-1 DLC configuration for service processor 2-2

# Η

hardware recommendations for DCAF 1-5 recommendations for Telnet 9-2 requirements for DCAF 1-5 requirements for Telnet 9-2 hot keys 1-3

# 

IBM 5858 modem B-7 IBM 7855 modem setting B-3 IBM 7857 modem setting B-4 IBM 7858 modem setting B-6 IBM PS/2 as 3745 console A-6 installing APPN-attached DCAF remote workstation 5-3 DCAF SNA-attached DCAF remote workstation 6-4 TCP/IP attached DCAF remote workstation 7-3 attached Telnet workstation 9-1

# L

local console connection (3745) A-15 locating 3745 console connectors A-14 logmode table, VTAM 6-13 logon

# Μ

major node definitions DCAF remote workstation 6-14 DCAF target service processor 6-14 minimum DCAF workstation configuration 1-4 Telnet workstation configuration 9-2 modem 5858 setting B-7 7855 setting B-3 7857 setting B-4 7858 setting B-6 modem configuration types for CS/2 modem-attached DCAF workstation 1-2, 4-1 modems

# Ν

NCP definitions DCAF remote workstation 6-11 DCAF target service processor 6-12

# Ρ

password DCAF remote logon 1-4 Telnet remote logon 9-2 procedure 2 4-6 procedure 4 4-11 procedure 6 4-16 procedure for service processor 3172 4-6, 4-11, 4-16 procedure for service processor 6275 4-6, 4-11 procedure for service processor 7585 4-6, 4-11, 4-16 procedures for configuring CS/2 4-4 program support installing a remote workstation 2-1 programming requirements for DCAF 1-4 requirements for Telnet 9-2

# R

recommendations for remote DCAF workstations 1-5 for remote Telnet workstations 9-2 regaining control of the service processor 1-4 remote access 10-1 Console for Java 1-1, 10-1 DCAF 1-1 remote console 3745 connection A-18 remote DCAF workstation APPC LAN-attached 1-3, 8-1 remote DCAF workstation *(continued)* APPN-attached 1-2, 5-1 installation 2-1 modem-attached 1-2, 4-1 NCP definitions 6-11 remote access 3-1 SNA-attached 1-3, 6-1 TCP/IP LAN-attached 1-3 two-target configuration example C-1 VTAM major node definitions 6-14 remote Telnet workstation TCP/IP-attached 9-1 RSF 3745 modem cable A-18 3745 modems B-7

# S

saving operations modem configuration B-5, B-7 service processor DCAF DLC configuration 2-2 regaining control 1-4 remote DCAF access 3-1 service processor 3172 4-6, 4-11, 4-16 service processor 6275 4-6, 4-11, 4-16 service processor 7585 4-6, 4-11, 4-16 setting 3745 alternate console A-1 3745 local console A-1 3745 remote console A-1 5858 modem configuration B-7 7855 modem configuration B-3 other IBM modems B-1 SNA-attached DCAF workstation 1-3, 6-1 start definitions, VTAM 6-13 starting DCAF remote session 3-1 Telnet remote session 9-2

# Т

TCP/IP attached DCAF workstation 1-3, 7-1 attached Telnet workstation 9-1 installing the program 2-3 program support 2-1 Telnet customer console 9-1 hardware requirements and recommendations 9-2 Telnet *(continued)* installing a remote workstation 9-1 programming requirements 9-2 remote logon password 9-2 starting a remote session 9-2 TCP/IP-attached workstation 9-1 testing connection from 3745 alternate console A-13 from 3745 local console A-13 two-target DCAF configuration example C-1

# V

VTAM logmode table 6-13 major node for DCAF remote workstation 6-14 major node for DCAF target service processor 6-14 start definitions 6-13

# W

workstation (DCAF) APPC LAN-attached 1-3, 8-1 APPN-attached 1-2, 5-1 minimum configuration 1-4 modem-attached 1-2, 4-1 NCP definitions 6-11 SNA-attached 1-3, 6-1 TCP/IP LAN-attached 1-3 two-target configuration example C-1 VTAM major node definitions 6-14 workstation (Telnet) TCP/IP-attached 9-1

# Readers' Comments — We'd Like to Hear from You

3745 Communication Controller All Models 3746 Nways Multiprotocol Controller Model 900 Console Setup Guide

#### Publication No. SA33-0158-10

Please send us your comments concerning this book. We will greatly appreciate them and will consider them for later releases of the present book.

If you prefer sending comments by FAX or electronically, use:

- FAX: 33 4 93 24 77 97
- IBM Internal Use: LGERCF at IBMFR
- Internet: lgercf@fr.ibm.com

In advance, thank you.

Your comments:

Name

Address

Company or Organization



Fold and Tape

Please do not staple

Fold and Tape



IBM France Centre d'Etudes et Recherches Service 0798 - BP 79 06610 La Gaude France

Fold and Tape

Please do not staple

Fold and Tape


Part Number: 34F1251

Printed by xxxx





