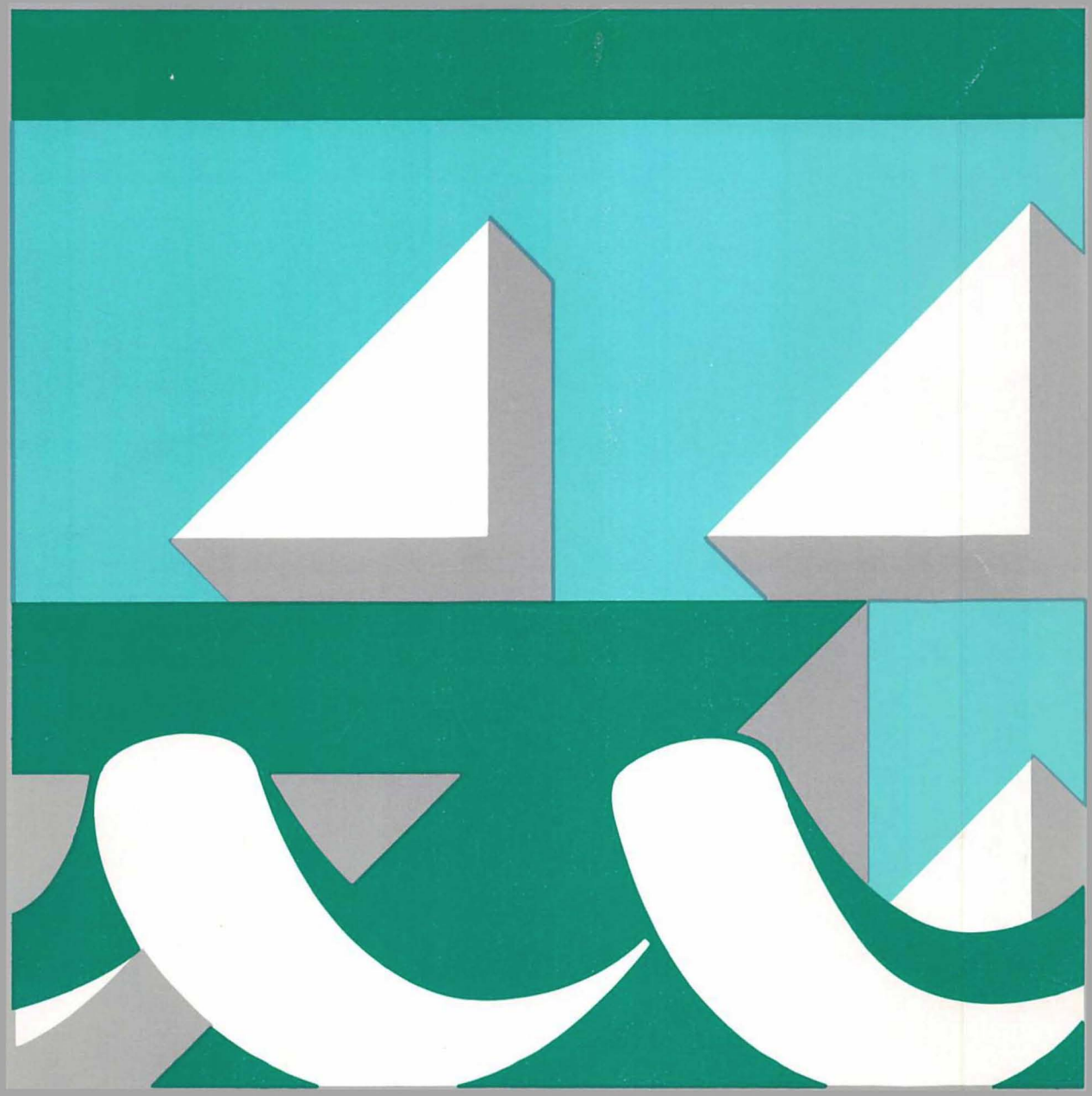
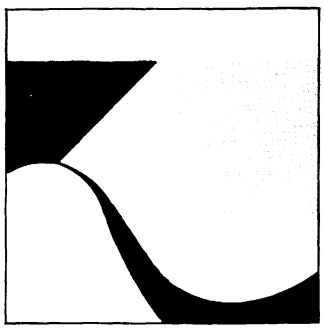
Network Program Products Bibliography and Master Index



SC30-3353-0

Network Program Products
Bibliography and Master Index



Advanced Communications Function for VTAM
Version 3 Release 1.1 Program Numbers: 5664-313 (MVS/370), 5665-289 (MVS/XA), 5664-280 (VM)

Advanced Communications Function for Network Control Program
Versions 3 and 4 Program Numbers: 5667-124, 5668-854

Advanced Communications Function for Network Control Program
Version 4 Subset I for the IBM 3720 Communication Controller
Program Number: 5668-754

Advanced Communications Function for Network Control Program
Version 4 Subset II for the Remote IBM 3720 Communication Controller
Program Number: 5665-387

Advanced Communications Function for System Support Programs
Version 3 Release 2 Program Numbers: 5665-338 (MVS), 5666-322 (VSE), 5664-289 (VM)

NetView
Program Numbers: 5665-361 (MVS/370), 5665-362 (MVS/XA), 5664-204 (VM)

SC30-3353-0 File No. S370/4300/30XX-50

First Edition (June 1986)

This book applies to the following IBM program products:

- Advanced Communications Function for VTAM Version 3 Release 1 Modification Level 1 for MVS/370 (Program Number 5665-313), MVS/XA (Program Number 5665-289), and VM (Program Number 5664-280)
- Advanced Communications Function for Network Control Program Version 4 (Program Number 5668-854) and Version 3 (Program Number 5667-124)
- Advanced Communications Function for Network Control Program V4 Subset (Program Number 5668-754)
- Advanced Communications Function for System Support Programs (SSP) Version 3 Release 2 for MVS (Program Number 5665-338), VSE (Program Number 5666-322), and VM (Program Number 5664-289)
- NetView for MVS/370 (Program Number 5665-361), MVS/XA (Program Number 5665-362), and VM (Program Number 5664-204).

Changes are made periodically to the information herein; before using this publication in connection with the operation of IBM systems, consult the latest *IBM System/370, 30XX, and 4300 Processors Bibliography*, GC20-0001, for the editions that are applicable and current.

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 program product in this publication is not intended to state or imply that only IBM's program product may be used. Any functionally equivalent program may be used instead.

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A form for reader's comments is provided at the back of this publication. If the form has been removed, comments may be addressed to IBM Corporation, Department E12, P.O. Box 12195, Research Triangle Park, North Carolina U.S.A. 27709. IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

About This Book

This book contains a bibliography of and master index to information products for the following network program products:

- Advanced Communications Function for Network Control Program (NCP)
- Advanced Communications Function for System Support Programs (SSP)
- Advanced Communications Function for VTAM
- NetView.

Who Should Use This Book

This book is for anyone who uses the VTAM, NCP, SSP, and NetView libraries.

How to Use This Book

This book is organized as follows:

Chapter 1. "Bibliography". This chapter contains a description of the organization of the libraries and a bibliography of the manuals in the network program products' libraries, with abstracts and figures.

Chapter 2. "Master Index". This chapter contains the master index for the network program products.

The index entries in Chapter 2 are arranged in this order: special characters, alphabetical entries, and numerical entries. The information products included in this index are listed at the beginning of the chapter and on a foldout at the back of the book. By extending the foldout, you can determine which manuals or information products discuss a topic and their form numbers.

The master index lists topics included in the VTAM, NCP, SSP, and NetView libraries. Topics in the master index are listed in the same manner as in the individual manuals. Refer to the separate manuals' indexes or tables of contents to determine where a particular topic is discussed. For example, let's say you looked under "V" for "VTAM application programs." You would see something like this:

```
VTAM
 applications programs
  converting NPP-GI
  writing VTAM-PG, NPP-PL
```

Following the entry is a list of one or more codes that represent the publications that discuss that topic. Each code corresponds to a specific manual, as listed on the foldout page at the back of the book and at the beginning of Chapter 2.

For our sample topic, the abbreviated title and books are:

- NPP-GI *Network Program Products General Information*, GC30-3350
- VTAM-PG *VTAM Programming*, SC23-0115
- NPP-PL *Network Program Products Planning*, SC30-3351.

You can find the topic in all of these manuals.

Where to Find More Information

Following are the titles and form numbers of books containing information related to the network program products. Some of these books are listed as prerequisite or related reading in one or more of the books in the network program products' libraries.

Note: The titles and form numbers of the books listed were correct at the time this book was published. Before ordering any book listed, you should verify the accuracy of the title and form number with your IBM representative or the *IBM System/370, 30XX, and 4300 Processors Bibliography,* GC20-0001.

Systems Network Architecture (SNA) Publications

Systems Network Architecture Concepts and Products, GC30-3072

Systems Network Architecture Technical Overview, GC30-3073

Systems Network Architecture Reference Summary, GA27-3136

Systems Network Architecture Logical Unit Types, GC20-1868

Systems Network Architecture Format and Protocol Reference Manual: Architectural Logic, SC30-3112.

Non-SNA Support Publications

Network Terminal Option General Information, GC38-0297

Network Terminal Option Installation, Migration, and Resource Definition, SC30-3347

Network Terminal Option Diagnosis, LY30-3194

Network Routing Facility General Information, GC27-0594

Network Routing Facility Planning, SC27-0593

Network Routing Facility Installation, Resource Definition, and Customization, SC30-3407

Network Routing Facility Diagnosis, LY30-5597

General Information: X.21 Interface Features, GA27-3287

IBM X.25 NCP Packet Switching Interface: General Information, GC30-3189.

TSO and TSO/VTAM Publications (MVS Only)

OS/VS2 System Programming Library: TSO, GC28-0629

OS/VS2 TSO Terminal User's Guide, GC28-0645

OS/VS2 TSO Guide to Writing a Terminal Monitor Program or a Command Processor, GC28-0648

MVS/Extended Architecture TSO Guide to Writing a Terminal Monitor Program or a Command Processor, GD23-0261 (Supplement to *OS/VS2 TSO Guide: to Writing a Terminal Monitor Program or a Command Processor*, GC28-0648)

MVS/Extended Architecture TSO Extensions TSO Guide to Writing a Terminal Monitor Program or a Command Processor, SC28-1136

MVS/Extended Architecture System Programming Library: TSO, GC28-1173

MVS/Extended Architecture TSO Terminal Users Guide, GC28-1274.

Publications on Other Access Methods

Advanced Communications Function for TCAM General Information: Introduction, GC30-3057

Advanced Communications Function for VTAM Entry General Information: Introduction, GC27-0438

Basic Telecommunications Access Method - Extended Support (BTAM-ES) General Information, GC38-0292.

MVS/Extended Architecture Publications

IBM System/370 Principles of Operation, GA22-7000

MVS/Extended Architecture Overview, GC28-1146

MVS/Extended Architecture: System Generation Reference, GC26-4009

MVS/Extended Architecture System Programming Library: Initialization and Tuning, GC28-1149

MVS/Extended Architecture System Programming Library: Service Aids, GC28-1159

MVS/Extended Architecture Access Method Services Reference, GC26-4019

MVS/Extended Architecture Utilities, GC26-4018

MVS/Extended Architecture: System Management Facilities (SMF), GC28-1153.

MVS/370 Publications

IBM System/370 Principles of Operation, GA22-7000

OS/VS2 System Programming Library: System Generation Reference, GC26-3792

OS/VS2 System Programming Library: Initialization and Tuning Guide (MVS/SP), GC28-1029

OS/VS2 System Programming Library: Service Aids, GC28-0674

OS/VS2 Access Method Services, GC26-3841

OS/VS2 MVS Utilities, GC26-3902

OS/VS2 System Programming Library: System Management Facilities (SMF), GC28-1153.

VSE Publications

Introduction to the VSE System, GC33-6108

VSE/Advanced Functions System Management Guide, SC33-6094

VSE/Advanced Functions System Control Statements, SC33-6095

VSE/Advanced Functions System Generation, SC33-6096

VSE/Advanced Functions Operating Procedures, SC33-6097

VSE/Advanced Functions Serviceability Aids and Debugging Procedures, SC33-6099

VSE/Advanced Functions System Utilities, SC33-6100

VSE/Advanced Functions Maintain System History Program (MSHP) User's Guide, SC33-6101.

VM Publications

VM/SP Planning Guide and Reference, SC19-6201

VM/SP Operator's Guide, SC19-6202

VM/SP System Messages and Codes, SC19-6204

VM/SP Terminal Reference, GC19-6206

VM/SP General Information, GC20-1838

VM/SP Installation Guide, SC24-5237

VM/SP Distributed Data Processing Guide, SC24-5241

VM/SP Group Control System Guide, SC24-5249

VM/SP Group Control System Reference, SC24-5250

VM/SP Group Control System Reference Summary, SX24-5134

VM/SP Interactive Problem Control System Guide, SC24-5260.

Contents

Figures

Chapter 1. Bibliography

This chapter provides an overview of the network program products' libraries. It first describes the organization of the libraries and then presents abstracts of the manuals' contents.

Organization of the Libraries

The libraries for the network program products described in this book are "task oriented." That is, each book in a library provides the information you need to perform a specific task. The tasks are briefly described below.

Evaluation

This task involves deciding which program products meet the requirements of your business.

Planning

This task consists of planning to install and use the program products. You choose program product options and decide what procedures are to be followed to get them.

Installing the Program Product

This task consists of the following subtasks:

- Define the program products to your operating system
- Place the program products on the system library
- Add program product facilities and options
- Apply program temporary fixes (PTFs).

Resource Definition

This task involves defining characteristics of network resources to the program product. These resources can be:

- Processor cycles
- Real or virtual storage
- Networks
- Terminals
- Input/output paths
- Data bases
- Date files
- Programs

- User profiles
- Queues.

Customization

This task involves enhancing, extending, or otherwise altering the product by using facilities offered by the product itself. These facilities include:

- Tables that you can alter or replace entirely
- Executable code that you can alter or replace entirely
- Options that you can invoke when the program starts.

Writing Application Programs

This task involves planning, designing, and coding application programs required for your business.

Operation

This task consists of starting and stopping program products, monitoring and controlling your network, and reacting to critical events. System programmers use the books shown in Figure 1 on page 5, Figure 3 on page 11, and Figure 5 on page 19 under "Operation" as background for creating documentation for VTAM operators.

Diagnosing Problems

This task consists of detecting, diagnosing, and correcting program product problems. It is performed by you and/or an IBM programming service representative. It includes:

- Collecting and examining problem-related information
- Organizing significant details into a problem description
- Resolving the immediate problem
- Developing a permanent solution.

In problem diagnosis, first read the diagnosis guide (steps to follow) to help you identify the problem. Then read the diagnosis reference (formats and dumps) to locate the module or phase of code at fault. To read dumps, use the data areas manual.

Abstracts of Publications

This section summarizes the contents of each information product in the network program products' libraries in the following order: general network program product information, VTAM, NCP-SSP, and NetView.

Network Program Products Publications

The following publications cover network program products in general.

Network Program Products General Information (GC30-3350)

This manual provides an overview of a telecommunications network operating with VTAM, NCP, SSP, and NetView. It describes the major tasks involved in using these products, and contains information on hardware and software requirements and the use of the products. You can use this manual to determine which network program products you need.

Network Program Products Planning (SC30-3351)

This manual helps you plan a network containing VTAM, NCP, SSP, and NetView. It discusses planning, installation, customization, and resource definition for single-domain, multiple-domain, and interconnected networks. This manual complements *General Information* by providing detailed information about the planning tasks and definitions for the hardware and software interfaces listed in that book. After reading this manual, system planners can select the options that best suit the needs of their business.

Network Program Products Samples: NetView (SC30-3352)

This manual complements the *Planning* manual by providing tested samples. It contains tested samples of VTAM, NCP, and NetView definitions for VM and MVS.

Network Program Products Bibliography and Master Index (GC30-3353)

This book contains a list of manuals that might be useful to someone planning, installing, or using a network that contains VTAM, NCP, SSP, and NetView. It also contains a listing of topics discussed in the products' libraries. Each entry in the listing is followed by the titles of the manuals discussing that topic.

Network Program Products Storage Estimates (GC30-3403)

This book contains information for determining required storage for licensed programs: VTAM, NCP, SSP, and NetView.

VTAM Publications

Figure 1 shows the manuals in the VTAM Version 3 Release 1.1 library, arranged according to their related tasks. The following paragraphs briefly describe each manual.

Advanced Communications Function for VTAM Installation and Resource Definition (SC23-0111)

The objective of this manual is to enable a systems programmer to install and define a network to VTAM. The manual discusses:

- Installing VTAM
- Coding start options
- Defining the network to VTAM
- Testing VTAM definitions.

This manual has appendixes to enable systems programmers to quickly locate the detailed syntax of the macro instructions and definition statements used to define a network to VTAM, as well as VTAM start options.

Advanced Communications Function for VTAM Customization (SC23-0112)

The objective of this manual is to enable a systems programmer to customize VTAM and tune it for better performance. It discusses:

- Modifying VTAM messages
- Modifying VTAM USS commands
- Installation exit routines and replaceable modules
- Tuning VTAM.

Advanced Communications Function for VTAM Programming (SC23-0115)

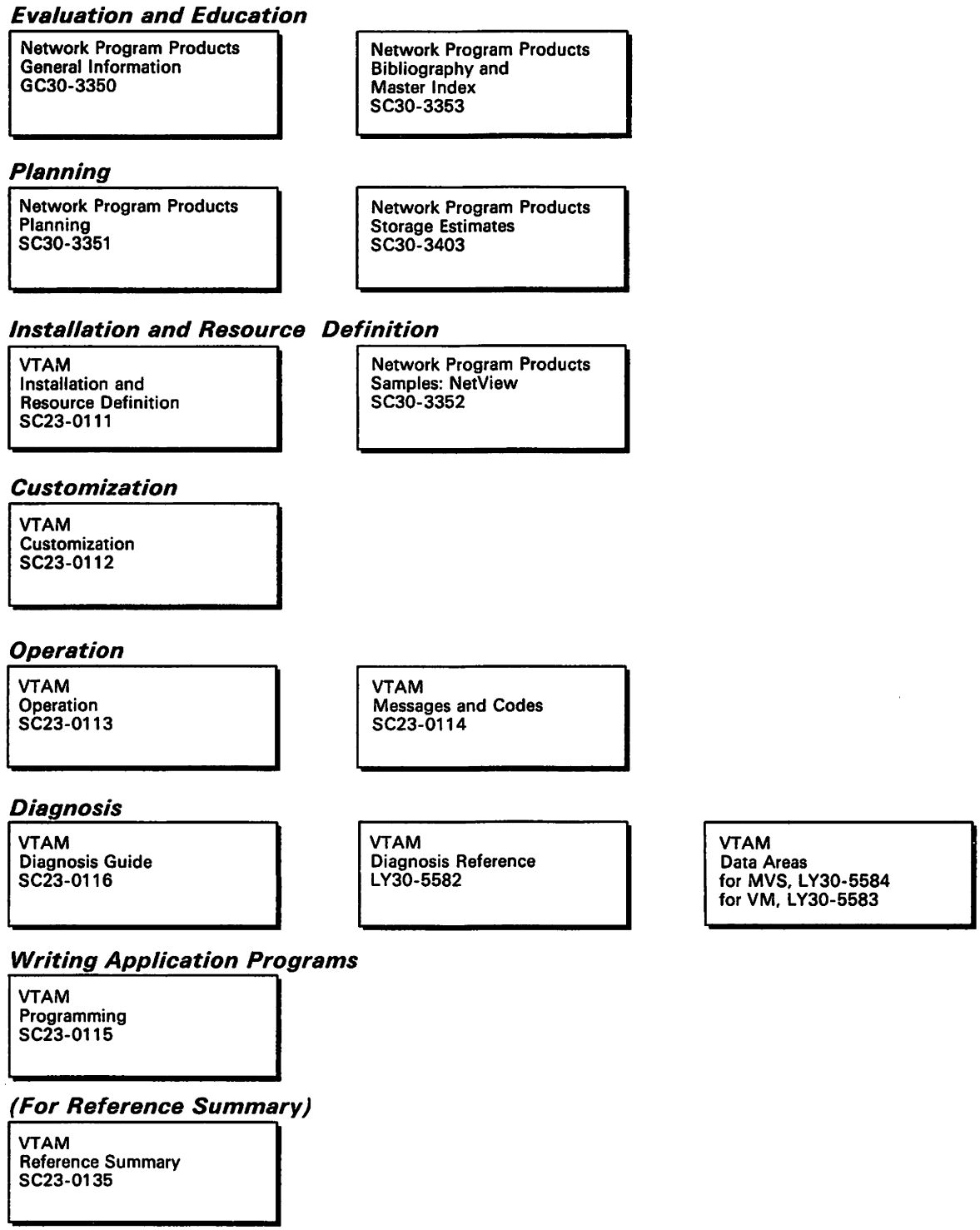
This manual describes how to use VTAM macro instructions to send data to and receive data from (1) a terminal in either the same or a different domain, or (2) another application program in either the same or a different domain. Also included is a dictionary of VTAM macro instructions. This manual assumes that the reader is familiar with assembler language and the programming facilities of the operating system.

Advanced Communications Function for VTAM Operation (SC23-0113)

This is a reference manual for VTAM network operators. It is also a guide for system programmers who must supply operators with the detailed information that they need to run the VTAM network.

This manual includes:

- An introduction to operating VTAM
- A description of VTAM commands
- A description of how to use VTAM commands to perform network control functions.



Note: *Order numbers for some VTAM V3R1 books, which are still available, may differ.*

Figure 1. The VTAM Library

Advanced Communications Function for VTAM Messages and Codes (SC23-0114)

This manual contain in alphanumeric order all messages and codes issued by VTAM. These messages include the following:

- TSO/VTAM messages for network operators
- TSO/VTAM messages for terminal users
- VTAM messages for network operators
- USS messages for terminal users
- VSCS messages.

This manual can be inserted into the operating system messages manual, if desired, or used as stand-alone manuals.

Advanced Communications Function for VTAM Diagnosis Guide (SC23-0116)

This publication is a guide for systems programmers to track down problems in VTAM. The books tells how to identify the source of a problem and how to collect information about the problem so that IBM field engineers can fix it. The information collected includes traces, dumps, and other documentation needed to call the IBM support center.

Advanced Communications Function for VTAM Diagnosis Reference (LY30-5582)

This manual contains reference information to use with the *VTAM Diagnosis Guide*. It contains an overview of the logic of VTAM, an overview of the control blocks of VTAM, and an overview of the components of VTAM. Appendixes include network flows, channel programs, and path information unit (PIU) reason codes.

Advanced Communications Function for VTAM Data Areas for MVS (LY30-5584)
Advanced Communications Function for VTAM Data Areas for VM (LY30-5583)

These manuals describe all of the data areas used by VTAM and can be used to read a VTAM dump. They are intended for IBM programming service representatives and customer personnel who are diagnosing problems with VTAM.

The map of each VTAM data area is divided into these four parts:

1. A reference list giving a function description of the data area, its boundary alignment, its length in bytes, a list of control blocks containing pointers to the data area, control blocks embedded within the data area, and where in storage the data area is found.

2. A diagram of the data area, showing the offsets, type, length, name, and description of each field in the data area.

3. A cross-reference list of all fields in the data area.

4. A list of constant fields in the data area, if any. The constants are listed by field name, value, and meaning.

Advanced Communications Function for VTAM Reference Summary (SC23-0135)

This publication is designed as a quick reference manual for system programmers and network programmers responsible for any or all of the following:

- Installing and customizing VTAM
- Providing operators with a summary of the information needed to operate VTAM
- Writing programs that use VTAM macro instructions.

This publication contains selected reference information that includes VTAM and VSCS commands, VTAM definition statements, VTAM start options, VTAM macro instructions, VTAM and VSCS trace formats, and selected SNA reference data.

Evolution of the VTAM Library

This section illustrates the relationship of each manual in the VTAM library to its predecessor manuals in earlier libraries. It is intended primarily to help users migrating from earlier releases by identifying the specific manual that contains information included in books from earlier libraries.

For information in the VTAM library prior to VTAM Version 1 Release 2, refer to *Network Program Products General Information* (GC27-0657).

Figure 2 shows the evolution of the VTAM library before the current release. The arrows between the manuals for each library represent the evolution of the manuals, that is, the movement of information from a manual in one library to a manual in another library. Related information from more than one manual is often combined into a single manual for the convenience of the user. There are times, however, when information on a particular function or product is more readily usable if it is spread out among several manuals.

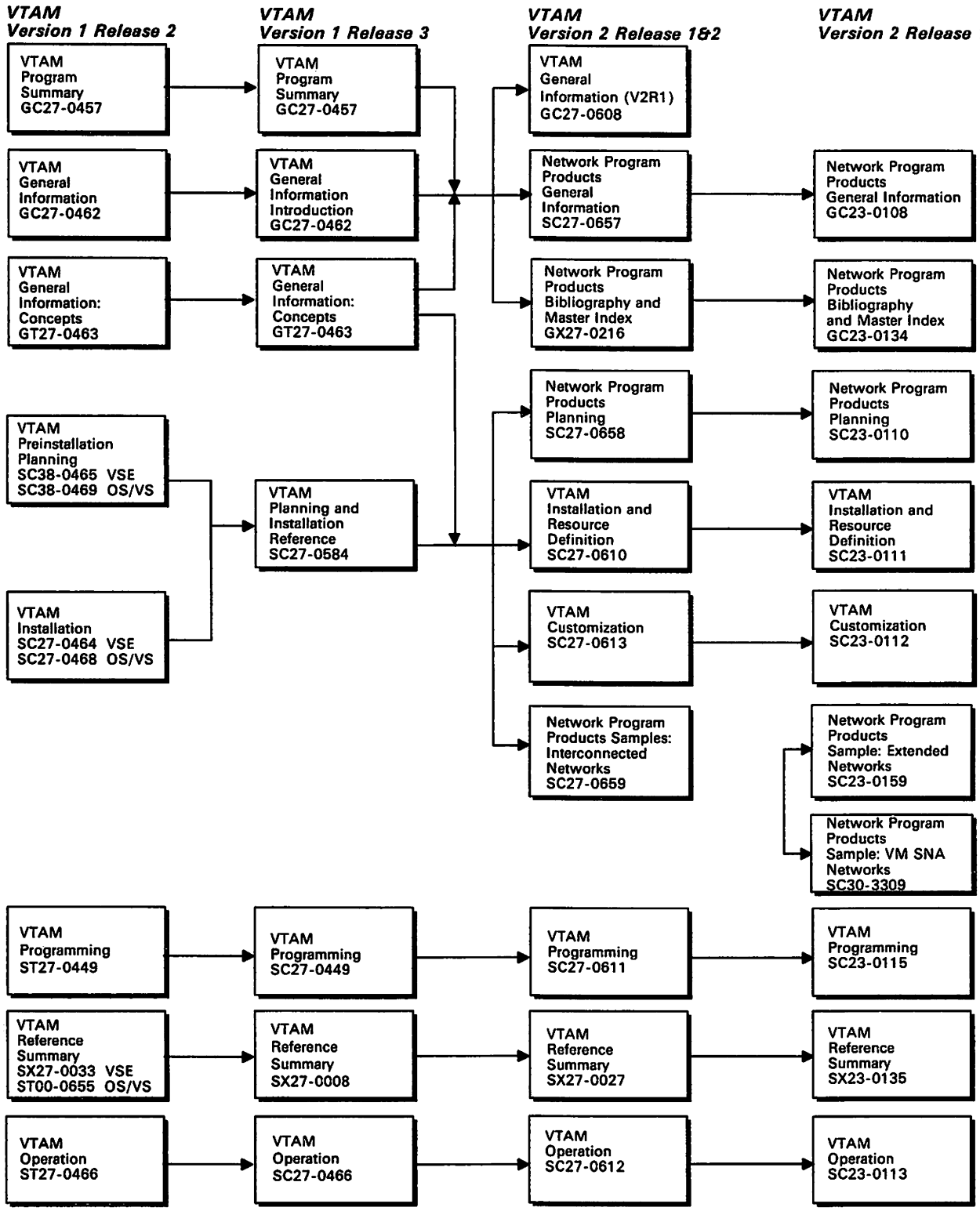


Figure 2 (Part 1 of 2). Evolution of the VTAM Library

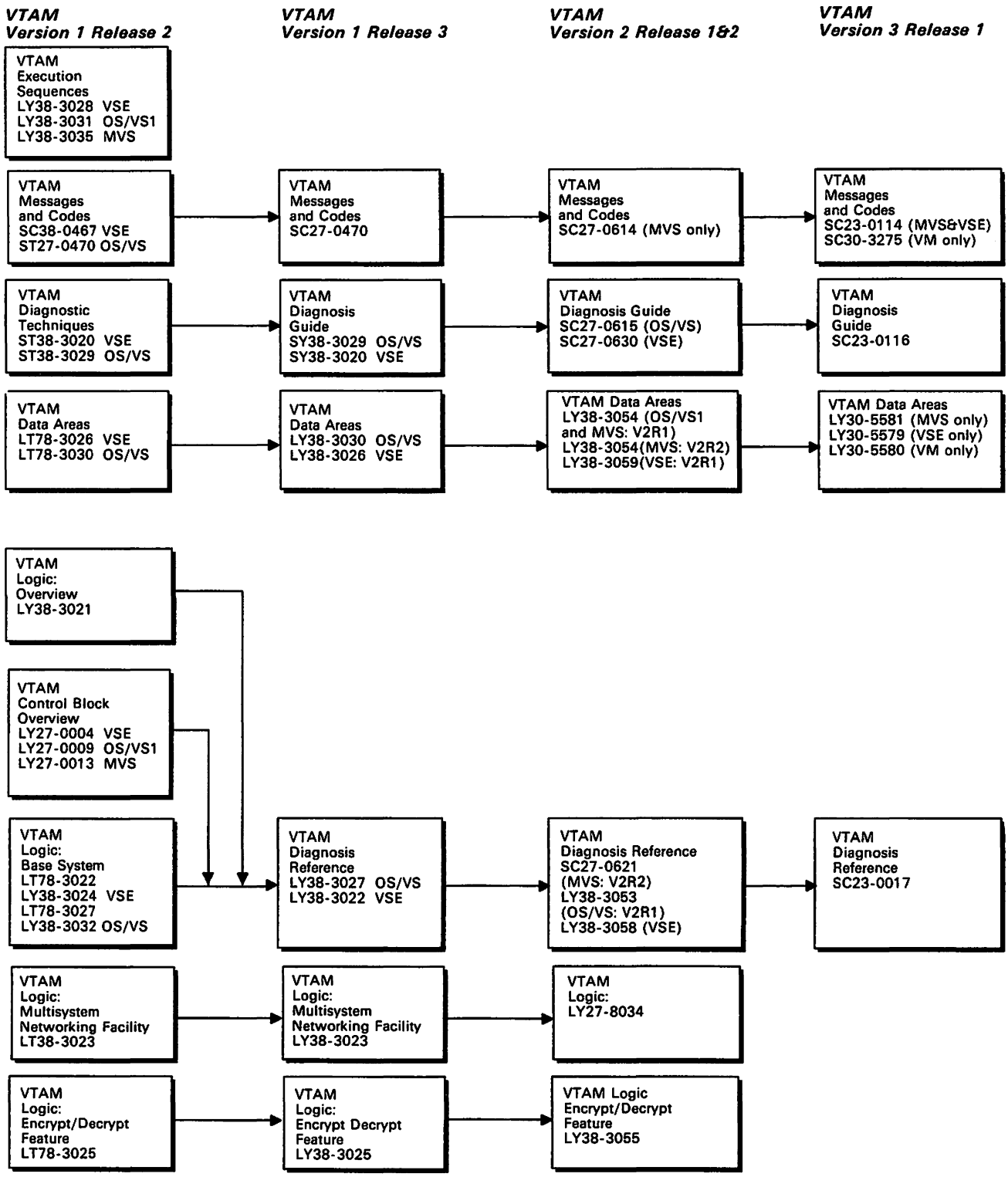


Figure 2 (Part 2 of 2). Evolution of the VTAM Library

NCP and SSP Publications

Figure 3 shows the manuals in the NCP Versions 3 and 4 library and the SSP Version 3 library, arranged according to their related tasks. The following paragraphs briefly describe each manual.

Advanced Communications Function for Network Control Program Version 4, Advanced Communications Function for System Support Programs Version 3: Generation and Loading Guide (SC30-3348)

This manual contains information to help users produce an operating NCP Version 3 or Version 4 using SSP Version 3. The manual covers the following major areas for the IBM 3705, 3725, or 3720 Communication Controller:

- Generating the program
- Loading the program.

Advanced Communications Function for Network Control Program Version 4, Advanced Communication Function for System Support Programs Version 3: Migration (SC30-3252).

This manual contains information to help the user migrate from a previous release of NCP to NCP Version 3 or Version 4. The primary purpose of this manual is to help users determine which definition statements and operands they need to change or add to their current NCP generation definition.

Advanced Communications Function for Network Control Program Version 4, Advanced Communications Function for System Support Programs Version 3: Resource Definition Guide (SC30-3349)

The primary purpose of this manual is to help programmers determine which definition statements and operands they need to code to define their particular NCP.

Advanced Communications Function for Network Control Program Version 4, and Advanced Communications Function for System Support Programs Version 3: Resource Definition Reference (SC30-3254)

This manual contains detailed descriptions of the definition statements used to define the NCP Version 3 or Version 4 using SSP Version 3. This manual is for system analysts and system programmers and helps them prepare an NCP to be used in communicating with a host processor in which one or more of the following access methods are being executed: TCAM or VTAM.

Also, this manual provides information on the partitioned emulation programming extension to NCP, which permits the communication controller to emulate the operation of an IBM 2701 or 2703 Transmission Control Unit for specified communication lines. Stations on these lines communicate in emulation mode with application programs in the host processor through BTAM, QTAM, TCAM, or equivalent access methods that can be used with the transmission control units mentioned.

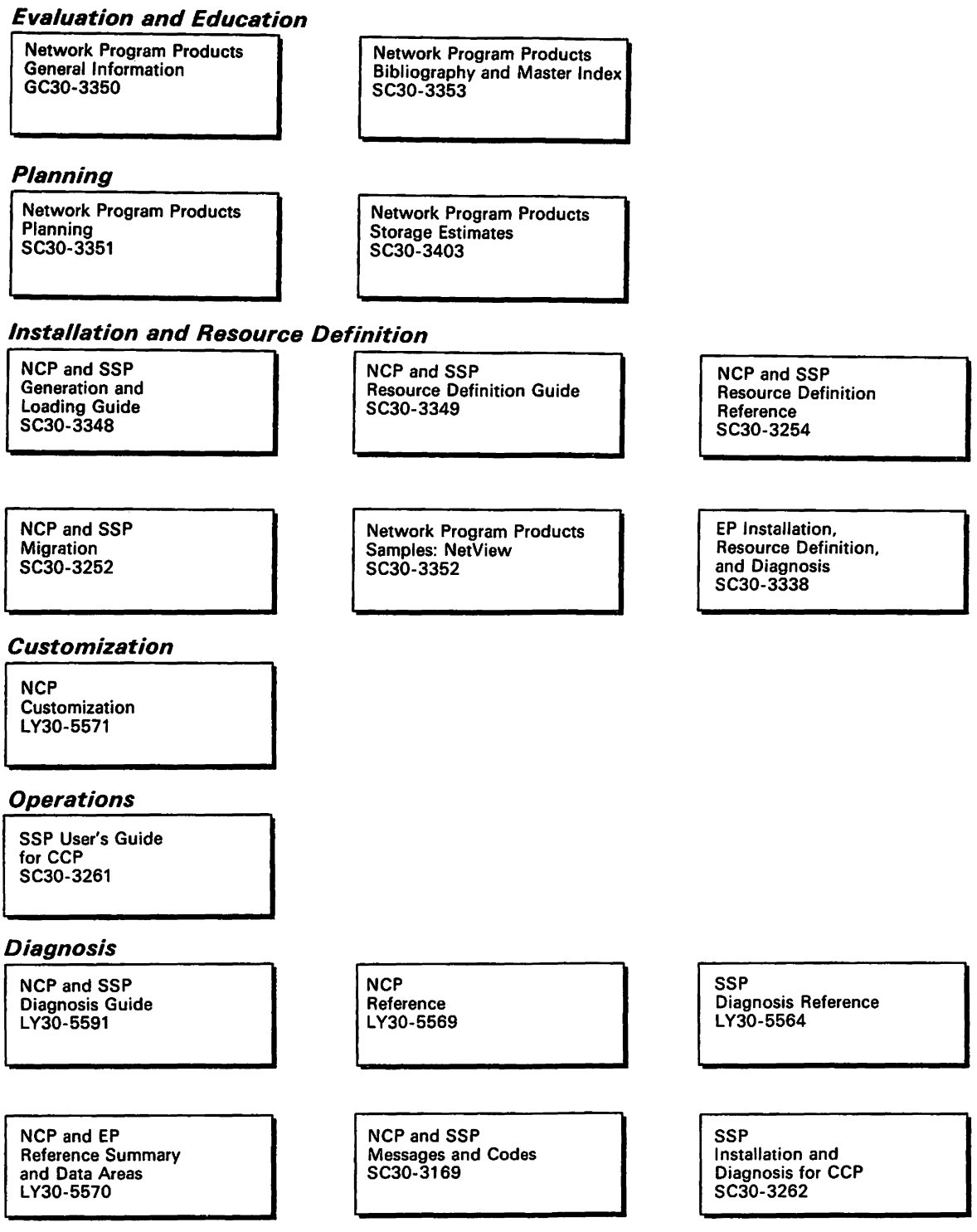


Figure 3. The NCP and SSP Library

Advanced Communications Function for Network Control Program, Version 4; Emulation Program for the 3725: Reference Summary and Data Areas (LY30-5570)

This manual contains reference information about NCP Version 4 for the IBM 3725 Communication Controller. The manual is intended for system programmers and IBM program support representatives. Its primary purpose is to provide quick access to often-used diagnostic and debug information. If more comprehensive information is needed about NCP, refer to one of the other manuals for the program.

Advanced Communications Function for Network Control Program, Version 4: Customization for the IBM 3725 (LY30-5571)

This manual provides information for users who want to modify an NCP Version 4 for the IBM 3725 Communication Controller. It is intended for programmers who are familiar with the operation of the NCP.

The manual enables the programmer to customize the NCP by adding line control for stations that are not supported by the NCP, and by adding programmed System Network Architecture (SNA) resources. The following information is presented in the manual:

- The facilities provided for customizing an NCP
- How to add routines to the NCP to provide character service, timer interruption handling, and XIO service
- How to add programmed SNA links and programmed network addressable units to the NCP
- The resources and NCP definition statements provided for customizing the NCP
- Coding and system generation examples.

Advanced Communications Function for Network Control Program, Version 4; Advanced Communications Function for System Support Programs, Version 3: Messages and Codes (SC30-3169)

This is a manual of messages issued by SSP Version 3. They are associated with the NCP Version 4. The programs for which messages are issued are:

- The Advanced Communication Function/Trace Analysis Program (ACF/TAP)
- The independent loader utility provided under MVS and VSE
- The NCP/EP Definition Facility (messages provided during the generation process).
- The dynamic dump utility provided (for emulation mode only) under MVS and VSE
- The configuration report program provided under MVS and VSE.

This manual also includes messages issued by the communication controller assembler program during NCP generation.

Emulation Program for IBM Communication Controllers Installation, Resource Definition, and Diagnosis (SC30-3338)

This manual tells how to install, define resources for, and diagnose problems in the Emulation Program (EP) for IBM Communication Controllers. It is intended for programmers, engineers, and network operators responsible for defining resources, generating, loading, or diagnosing problems with EP.

Advanced Communications Function for Network Control Program, Version 4; Advanced Communications Functions for System Support Programs, Version 3: Diagnosis Guide (LY30-5591)

This manual contains information to help user diagnosticians and program support representatives isolate and define problems in NCP Version 3 or 4 using SSP Version 3 for the IBM 3705 or 3725 Communication Controller. The primary purpose of the manual is to help the user interact with the IBM Support Center to resolve a user's problem. Procedures in these manuals describe how to:

- Determine whether the problem is with NCP
- Use relevant information to describe the problem
- Gather appropriate documentation about the problem
- Report the problem to the IBM Support Center.

Advanced Communications Function for Network Control Program, Version 4: Reference for the IBM 3725 (LY30-5569)

This manual describes the internal operations of NCP Version 4 for the IBM 3725 Communication Controller. The manual supplements the program listings of the NCP.

This manual is for the IBM program support representatives and system engineers who provide program maintenance and need information on the internal organization and operation of NCP.

Advanced Communications Function for System Support Programs Version 3: Diagnosis Reference (LY30-5564)

This manual is to be used by IBM program support representatives responsible for maintaining SSP Version 3 for the IBM 3705 or 3725 Communication Controller. The SSP includes an independent loader utility, dump utilities, a trace analysis program, generation facilities, and a configuration report program for the NCP operating in an IBM Communication Controller. The utilities and report program in the SSP can be used with OS/VS.

This manual describes the organization of the utilities and report program in the SSP and includes flow-of-control diagrams, module descriptions, and error-message-to-module cross-reference information. Also included is general information about the NCP generation process.

Advanced Communications Function for the System Support Programs User's Guide for the Configuration Control Program Facility (SC30-3261)

This manual tells you how to use the configuration control program (CCP) facility. It describes what CCP is, how it works, what its conventions are (commands, menus, panels, and lists), how to perform tasks using CCP, and what to do with the output that is generated.

Advanced Communications Function for the System Support Programs Installation and Diagnosis for the Configuration Control Program Facility (SC30-3262)

This manual tells the diagnostician how to identify a problem, classify the type of problem, collect information about the problem, and report the problem to the IBM Support Center. It also tells you how to install and customize CCP.

Evolution of the NCP and SSP Library

This section illustrates the relationship of each manual in the NCP and SSP library to its predecessor manuals in earlier libraries. It is intended primarily to help users migrating from earlier releases by identifying the specific manual that contains information included in books from earlier libraries.

For information in the NCP and SSP libraries prior to NCP Release 5, refer to *Network Program Products General Information* (GC27-0657).

Figure 4 shows the evolution of the NCP library before the current release. The arrows between the manuals for each library represent the evolution of the manuals, that is, the movement of information from a manual in one library to a manual in another library. Related information from more than one manual is often combined into a single manual for the convenience of the user. There are times, however, when information on a particular function or product is more readily usable if it is spread out among several manuals.

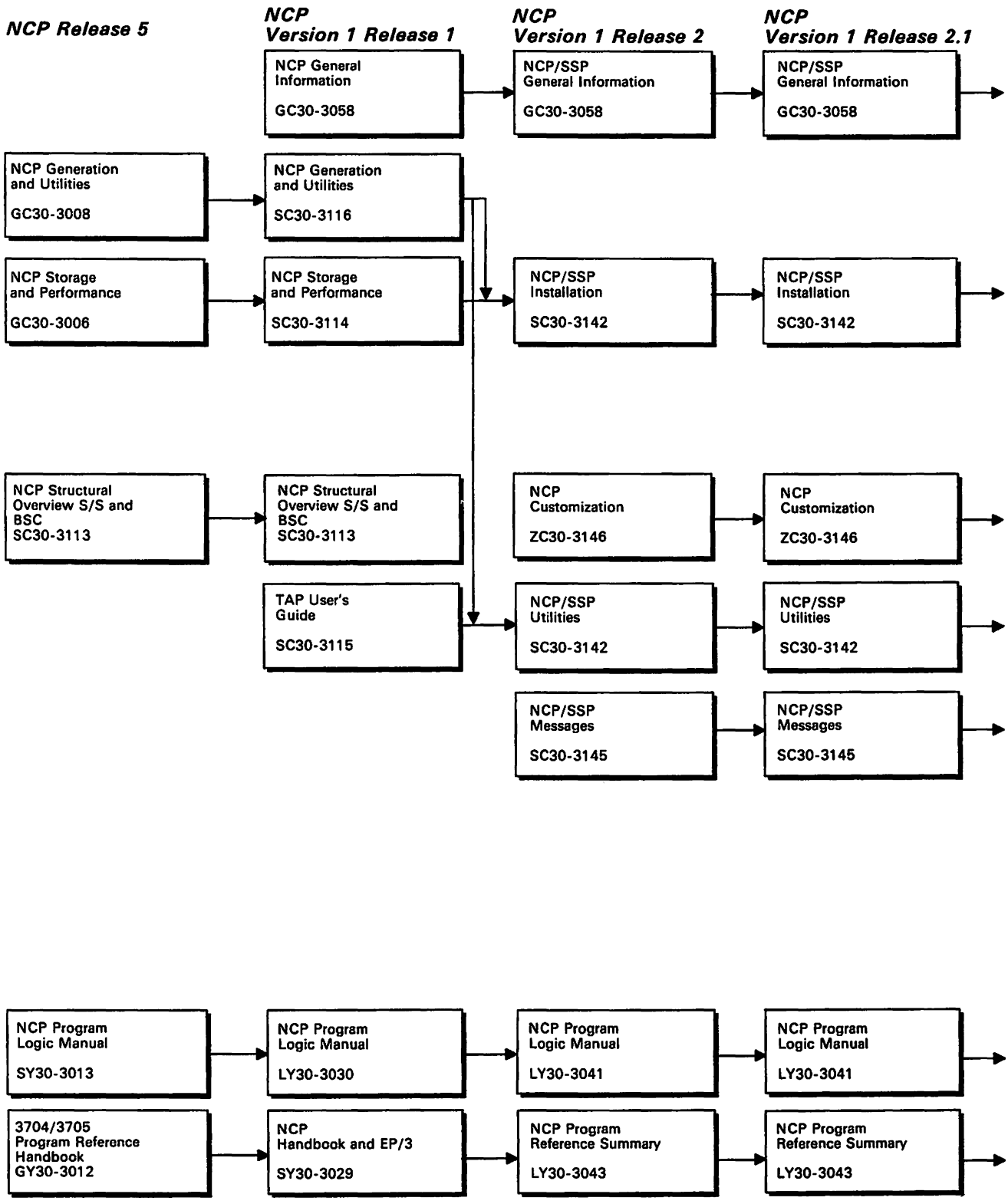


Figure 4 (Part 1 of 2). Evolution of the NCP and SSP Library

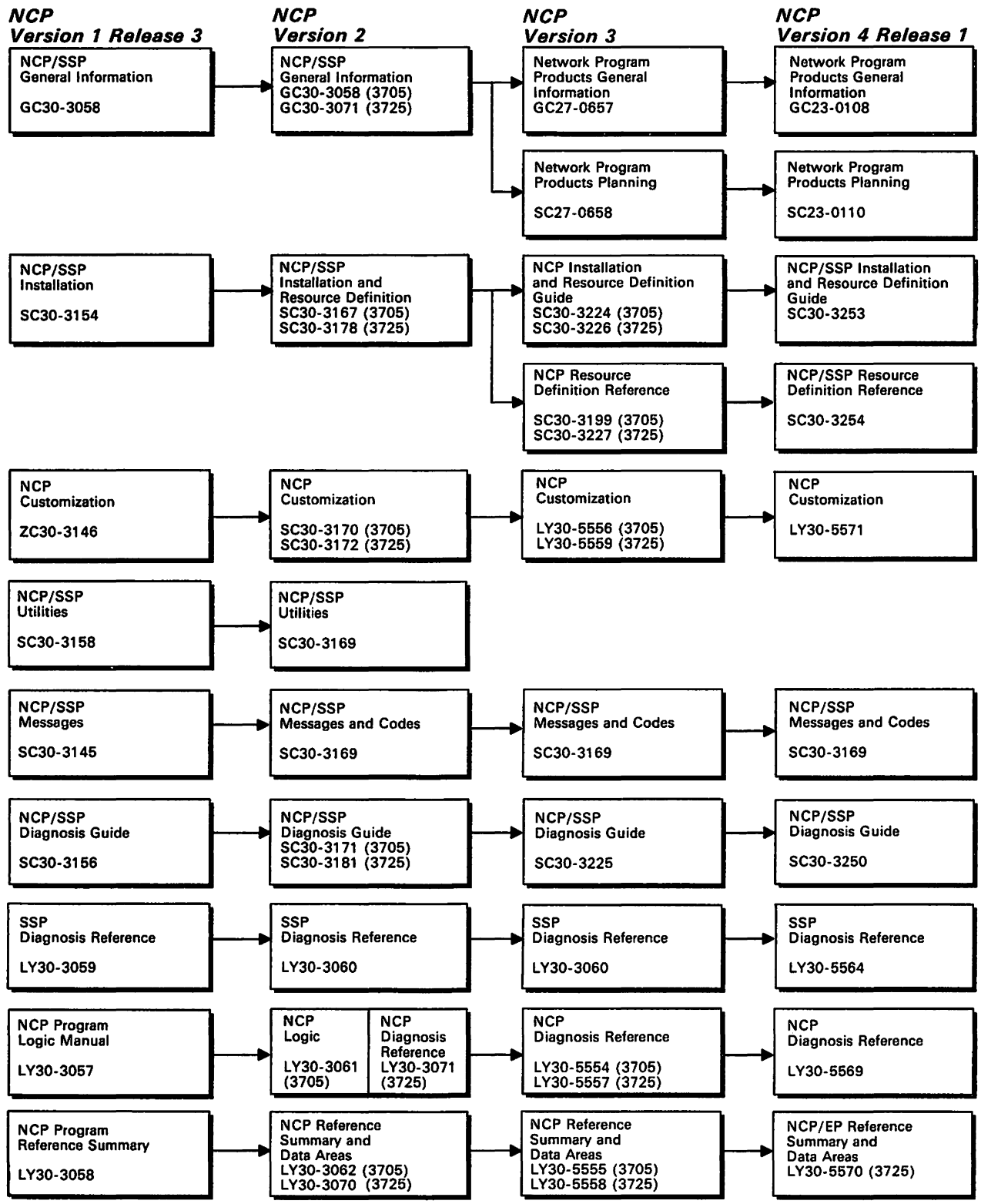


Figure 4 (Part 2 of 2). Evolution of the NCP and SSP Library

The NetView Library

Figure 5 shows the information products in the NetView library, arranged according to their related tasks. The following paragraphs briefly describe each publication and other material.

NetView Installation and Administration Guide (SC30-3360)

This book is accompanied by the distribution tape to assist the customer in installing NetView and preparing it to be operational in the installation environment. The customer can use the *NetView Resource Definition Reference* along with this guide to gain a more specific explanation of definition statements and their effect upon the installation.

NetView Administration Reference (SC30-3361)

This manual is to be used with the *NetView Installation and Administration Guide* to gain a more specific explanation of definition statements and their effect upon the installation.

NetView Command Lists (SC30-3423)

This manual provides network system programmers with the tools they need to write command lists (CLISTs) to enhance network operator tasks and automate responses to messages for their own installations. It explains the differences between NCCF CLISTs and NetView CLISTs. It provides step-by-step instructions for writing simple CLISTs, for writing advanced CLISTs, and for migrating from NCCF message automation to NetView message automation.

NetView Operation Primer (SC30-3363)

This manual provides network operators with a fundamental understanding of the network management task. Topics include information on how to start and stop a network, control resources, monitor a network, and gather data necessary to report a problem.

NetView Operation (SC30-3364)

This manual provides system programmers and experienced network operators with a more comprehensive explanation of the various components of NetView that can be used for network management. Topics include detailed command explanation and panel flows, as well as information on how the various components interact with each other.

NetView Messages (SC30-3365)

This manual provides system programmers and network operators with the information required to interpret the error messages issued by NetView.

Evaluation and Education

- Network Program Products General Information GC30-3350
- Network Program Products Bibliography and Master Index SC30-3353
- Learning About NetView: Network Concepts SKT2-0292 (PC Diskette)

Planning

- Network Program Products Planning SC30-3351
- Network Program Products Storage Estimates SC30-3403

Installation and Administration

- NetView Installation and Administration Guide SC30-3360
- Network Program Products Samples: NetView SC30-3352
- NetView Administration Reference SC30-3361

Customization

- NetView Customization LY30-5586
- NetView Command Lists SC30-3423

Operation

- NetView Operation Primer SC30-3363
- NetView Operation SC30-3364
- NetView Messages SC30-3365
- NetView Hardware Problem Determination Reference SC30-3366
- NetView Operation Scenarios SC30-3376
- NetView Command Summary SX27-3620

Diagnosis

- NetView Diagnosis LY30-5587

Figure 5. The NetView Library

NetView Hardware Problem Determination Reference (SC30-3366)

This manual helps system programmers and network operators classify, describe, and resolve problems utilizing the hardware monitor component of NetView.

NetView Operation Scenarios (SC30-3376)

This manual helps system programmers and network operators operate a network using NetView.

Learning about NetView: Network Concepts (SKT2-0292)

This tutorial is a PC-based online, teaching tool that uses graphics, animation, and NetView screen simulations to introduce new NetView users to network management using NetView. The tutorial covers an introduction to network concepts, devices in an SNA network, and how to solve common network problems using NetView panels. It should be used to train network and help desk operators.

NetView Command Summary (SX27-3620)

This reference card provides network operators with quick method to find the format of a NetView command.

NetView Customization (LY30-5586)

This manual provides network system programmers with the tools they need to write command processors, exit routines, and subtasks, and change and add NetView help and tutorial panels to customize NetView for their own installations.

NetView Diagnosis (LY30-5587)

This manual is for NetView users who need to isolate a NetView problem, classify it as a specific type, and then accurately describe the problem to an IBM support center so a solution can be found.

Chapter 2. Master Index

This chapter contains the master index for the network program products' libraries. The following chart lists the manuals represented in this index by code. This same chart is found in a foldout at the back of the book for easy reference while using the master index.

Information Products Listed in Master Index

Index Code	Abbreviated Title	Order no.
EP-IRD	Emulation Program Installation, Resource Definition, and Diagnosis	SC30-3338
NCP-CS	NCP Customization	LY30-5571
NCP-RF	NCP Reference	LY30-5569
NCP/SSP-DG	NCP and SSP Diagnosis Guide	SC30-3255
NCP/SSP-GL	NCP and SSP Generation and Loading	SC30-3348
NCP/SSP-MI	NCP and SSP Migration	SC30-3252
NCP/SSP-RD	NCP and SSP Resource Definition Reference	SC30-3254
NCP/SSP-RDG	NCP and SSP Resource Definition Guide	SC30-3349
NPP-GI	Network Program Products General Information	GC30-3350
NPP-PL	Network Program Products Planning	SC30-3351
NPP-SAM	Network Program Products Samples: NetView	SC30-3352
NV-AR	NetView Administration Reference	SC30-3361
NV-CL	NetView Command Lists	SC30-3423
NV-D	NetView Diagnosis	LY30-5587
NV-HPD	NetView Hardware Problem Determination Reference	SC30-3366
NV-IA	NetView Installation and Administration Guide	SC30-3360
NV-O	NetView Operation	SC30-3364
NV-OP	NetView Operation Primer	SC30-3363
NV-SC	NetView Scenerios	SC30-3376
SSP-CCPIN	SSP Installation and Diagnosis for CCP	SC30-3262
SSP-CCPUG	SSP User's Guide for CCP	SC30-3261
SSP-DR	SSP Diagnosis Reference	LY30-5564
VTAM-CS	VTAM Customization	SC23-0112
VTAM-DG	VTAM Diagnosis Guide	SC23-0116
VTAM-DR	VTAM Diagnosis Reference	LY30-5582
VTAM-IR	VTAM Installation and Resource Definition	SC23-0111
VTAM-OP	VTAM Operation	SC23-0113
VTAM-PG	VTAM Programming	SC23-0115

Information Products Listed in Master Index

Index

Special Characters

A

B

C

D

E

G

H

I

J

K

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

Numerics

Glossary

This glossary defines important NCP, NetView, SSP, and VTAM abbreviations and terms. It includes information from the *IBM Vocabulary for Data Processing, Telecommunications, and Office Systems*, GC20-1699. Definitions from the *American National Dictionary for Information Processing* are identified by an asterisk (*). Definitions from draft proposals and working papers under development by the International Standards Organization, Technical Committee 97, Subcommittee 1 are identified by the symbol (TC97). Definitions from the *CCIT Sixth Plenary Assembly Orange Book, Terms and Definitions* and working documents published by the Consultative Committee on International Telegraph and Telephone of the International Telecommunication Union, Geneva, 1980 are preceded by the symbol (CCITT/ITU). Definitions from published sections of the *ISO Vocabulary of Data Processing*, developed by the International Standards Organization, Technical Committee 97, Subcommittee 1 and from published sections of the *ISO Vocabulary of Office Machines*, developed by subcommittees of ISO Technical Committee 95, are preceded by the symbol (ISO).

For abbreviations, the definition usually consists only of the words represented by the letters; for complete definitions, see the entries for the words.

Reference Words Used in the Entries

The following reference words are used in this glossary:

Contrast with. Refers to a term that has an opposed or substantively different meaning.

Deprecated term for. Indicates that the term should not be used. It refers to a preferred term, which is defined.

See. Refers to multiple-word terms that have the same last word.

See also. Refers to related terms that have similar (but not synonymous) meanings.

Synonym for. Appears in the commentary of a less desirable or less specific term and identifies the preferred term that has the same meaning.

Synonymous with. Appears in the commentary of a preferred term and identifies less desirable or less specific terms that have the same meaning.

ABEND. Abnormal end of task.

abnormal end of task (ABEND). Termination of a task before its completion because of an error condition that cannot be resolved by recovery facilities while the task is executing.

ACB. (1) In VTAM, application control block. (2) In NCP, adapter control block.

ACB address space. In VTAM, the address space in which the ACB is opened. See *associated address space* and *session address space.*

ACB name. (1) The name of an ACB macro instruction. (2) A name specified in the ACBNAME parameter of a VTAM APPL statement. Contrast with *network name.*

ACB-based macro instruction. In VTAM, a macro instruction whose parameters are specified by the user in an access method control block.

accept. For a VTAM application program, to establish a session with a logical unit (LU) in response to a CINIT request from a system services control point (SSCP). The session-initiation request may begin when a terminal user logs on, a VTAM application program issues a macro instruction, or a VTAM operator issues a command. See also *acquire (1).*

access method. A technique for moving data between main storage and input/output devices.

accounting exit routine. In VTAM, an optional installation exit routine that collects statistics about session initiation and termination.

ACF. Advanced Communications Function.

ACF/NCP. Advanced Communications Function for the Network Control Program. Synonym for *NCP.*

ACF/SSP. Advanced Communications Function for the System Support Programs. Synonym for *SSP.*

ACF/TAP. Advanced Communications Function for the Trace Analysis Program. Synonym for *TAP*.

ACF/TCAM. Advanced Communications Function for the Telecommunications Access Method. Synonym for *TCAM*.

ACF/VTAM. Advanced Communications Function for the Virtual Telecommunications Access Method. Synonym for *VTAM*.

ACF/VTAME. Advanced Communications Function for the Virtual Telecommunications Access Method Entry. Synonym for *VTAME*.

acquire. (1) For a VTAM application program, to initiate and establish a session with another logical unit (LU). The acquire process begins when the application program issues a macro instruction. See also *accept*. (2) To take over resources that were formerly controlled by an access method in another domain, or to resume control of resources that were controlled by this domain but released. Contrast with *release*. See also *resource takeover*.

activate. To make a resource of a node ready to perform the functions for which it was designed. Contrast with *deactivate*.

active. (1) The state a resource is in when it has been activated and is operational. Contrast with *inactive, pending,* and *inoperative*. (2) Pertaining to a major or minor node that has been activated by VTAM. Most resources are activated as part of VTAM start processing or as the result of a VARY ACT command.

active application. The application subsystem currently in an extended recovery facility (XRF) session with a terminal user. See *alternate application*.

adapter control block (ACB). In NCP, a control block that contains line control information and the states of I/O operations for BSC lines, start-stop lines, or SDLC links.

address aliasing. See *network address translation*.

address translation. See *network address translation*.

adjacent NCPs. Network control programs (NCPs) that are connected by subarea links with no intervening NCPs.

adjacent networks. Two SNA networks joined by a common gateway NCP.

adjacent nodes. Two nodes that are connected by one or more data links with no intervening nodes.

adjacent SSCP table. A table containing lists of the system services control points (SSCPs) that VTAM can be in session with or can use to reach destination SSCPs in the same network or in other networks. The table is filed in the VTAM definition library.

adjacent subareas. Two subareas connected by one or more links with no intervening subareas. See also *subarea*.

Advanced Communications Function (ACF). A group of IBM program products (principally VTAM, TCAM, NCP, and SSP) that use the concepts of Systems Network Architecture (SNA), including distribution of function and resource sharing.

alert. In NetView, a high priority event that warrants immediate attention. This data base record is generated for certain event types that are defined by user-constructed filters.

alias address. An address used by a gateway NCP and a gateway system services control point (SSCP) in one network to represent a logical unit (LU) or SSCP in another network.

alias name. A name defined in a host used to represent a logical unit name, logon mode table name, or class of service name in another network. This name is defined to a name translation program when the alias name does not match the real name. The alias name translation program is used to associate the real and alias names.

alias name translation facility. A function for converting logical unit names, logon mode table names, and class of service names used in one network into equivalent names to be used in another network. Available with NetView or NCCF program products.

alternate application. The subsystem that is prepared to take over a particular active application's extended recovery facility (XRF) sessions with terminal users in case the application fails. See *active application*.

alternate path. (1) Another channel an operation can use after a failure. See also *alternate path retry (APR)*. (2) In CCP, one of two paths that can be defined for information flowing to and from physical units attached to the network by means of an IBM 3710 Network Controller. See *primary path*.

alternate path retry (APR). A facility that allows a failed I/O operation to be retried on another channel assigned to the device performing the I/O operation. It also provides the capability to establish other paths to an online or offline device.

alternate route. A secondary or backup route that is used if normal routing is not possible.

ancillary equipment. Synonym for *auxiliary equipment*.

any-mode. In VTAM: (1) The form of a RECEIVE request that obtains input from any one (unspecified) session. (2) The form of an ACCEPT request that completes the establishment of a session by accepting any one (unspecified) queued CINIT request. Contrast with *specific-mode*. See *continue-any mode*. See also *accept*.

API. Application program interface.

application control block (ACB). A control block that links an application program to VSAM or VTAM.

application program. (1) A program written for or by a user that applies to the user's work. (2) A program used to connect and communicate with stations in a network, enabling users to perform application-oriented activities.

application program exit routine. In VTAM, a user-written exit routine that performs functions for a particular application program and is run as part of the application program. Examples are the RPL exit routine, the EXLST exit routine, and the TESTCB exit routine. Contrast with *installation exit routine*.

application program identification. The symbolic name by which an application program is identified to VTAM. It is specified in the APPLID parameter of the ACB macro instruction.

application program interface (API). (1) The formally defined programming language interface between an IBM system control program or program product and its user. (2) The interface through which an application program interacts with an access method. In VTAM, it is the language structure used in control blocks so that application programs can reference them and be identified to VTAM.

application program major node. A group of application program minor nodes. In the VTAM definition library, it is a member, book, or file that contains one or more APPL statements, which represent application programs. In MVS, it is a member of the library; in VSE, it is a book; and in VM, it is a CMS file of filetype VTAMLST.

APR. Alternate path retry.

ASCII. American National Standard Code for Information Interchange.

associated address space. In VTAM, the address space in which RPL-based requests are issued that specify an ACB opened in another address space.

asynchronous exit routine. In VTAM, an RPL exit routine or an EXLST exit routine other than LERAD or SYNAD. Contrast with *inline exit routine*.

asynchronous operation. An operation, such as a request for session establishment or data transfer, in which the application program is allowed to continue execution while VTAM performs the operation. VTAM informs the program after the operation is completed. Contrast with *synchronous operation*.

asynchronous request. In VTAM, a request for an asynchronous operation. Contrast with *synchronous request*.

attaching device. Any device that is physically connected to a network and can communicate over the network.

authorization exit routine. In VTAM, an optional installation exit routine that approves or disapproves requests for session initiation.

authorized operator. In NetView, an operator who has been authorized to receive undeliverable messages and lost terminal messages.

authorized path. In VTAM for MVS, a facility that enables an application program to specify that a data transfer or related operation be carried out in a privileged and more efficient manner.

auto-baud. In CCP, a line speed designation by which the IBM 3710 Network Controller determines the line speed.

automatic activation. In VTAM, the activation of links and link stations in adjacent subarea nodes as a result of channel device name or RNAME specifications related to an activation command that names a subarea node. See *direct activation*.

automatic deactivation. In VTAM, the deactivation of links and link stations in adjacent subarea nodes as a result of a deactivation request that names a subarea node. Automatic deactivation occurs only for automatically activated links and link stations that have not also been directly or indirectly activated. See *direct deactivation*.

automatic logon. (1) A process by which VTAM automatically creates a session-initiation request to establish a session between two logical units (LUs). The session will be between a designated primary logical unit (PLU) and a secondary logical unit (SLU) that is neither queued for nor in session with another PLU. See also *controlling application program* and *controlling logical unit*. (2) In VM, a process by which a virtual machine is initiated by other than the user of that virtual machine. For example, the primary VM operator's virtual machine is activated automatically during VM initialization.

automatic reactivation. In NetView, the activation of a node from the inactive state without any action by the network operator.

auto-parity. In CCP, a method that allows an IBM 3710 Network Controller to decide whether to use odd or even parity when communicating with a start-stop terminal.

auxiliary equipment. Equipment not under direct control of the processing unit. Synonymous with *ancillary equipment.*

auxiliary network address. In VTAM, any network address, except the main network address, assigned to a logical unit capable of having parallel sessions. Contrast with *main network address.*

available. In VTAM, pertaining to a logical unit that is active, connected, enabled, and not at its session limit.

back-level. Pertaining to an earlier release of an IBM product, which may not support a particular, current function.

back-to-back gateways. Two gateways separated by one intervening network that contains no gateway system services control point (SSCP) function involved with either of the two gateway NCPs.

backup session. The session that replaces the failing primary extended recovery facility (XRF) session between a terminal user and the active IMS/VS subsystem.

balanced routing. A method of assigning network routes so that all routes are used equally.

BASE disk. The virtual disk that contains the text decks and macro instructions for VTAM and VM SNA console support (VSCS). It also contains control files and sample files used when running VTAM on the VM operating system. See *DELTA disk, MERGE disk, RUN disk,* and *ZAP disk.*

basic information unit (BIU). In SNA, the unit of data and control information that is passed between half-sessions. It consists of a request/response header (RH) followed by a request/response unit (RU).

basic transmission unit (BTU). In SNA, the unit of data and control information passed between path control components. A BTU can consist of one or more path information units (PIUs). See also *blocking of PIUs.*

begin bracket. In SNA, the value (binary 1) of the begin-bracket indicator in the request header (RH) of the first request in the first chain of a bracket; the value denotes the start of a bracket. Contrast with *end bracket.* See also *bracket.*

bidder. In SNA, the LU-LU half-session defined at session activation as having to request and receive permission from the other LU-LU half-session to begin a bracket. Contrast with *first speaker.* See also *bracket protocol.*

binary synchronous communication (BSC). (1) Communication using binary synchronous line discipline. (2) A uniform procedure, using a standardized set of control characters and control character sequences, for synchronous transmission of binary-coded data between stations.

binary synchronous transmission. Data transmission in which synchronization of characters is controlled by timing signals generated at the sending and receiving stations. See also *start-stop transmission* and *Synchronous Data Link Control.*

bind. In SNA, a request to activate a session between two logical units (LUs). See also *session activation request.* Contrast with *UNBIND.*

BIU. Basic information unit.

BIU segment. In SNA, the portion of a basic information unit (BIU) that is contained within a path information unit (PIU). It consists of either a request/response header (RH) followed by all or a portion of a request/response unit (RU), or only a portion of an RU.

blocking of PIUs. In SNA, an optional function of path control that combines multiple path information units (PIUs) into a single basic transmission unit (BTU).

BNN. Boundary network node.

boundary function. In SNA: (1) A capability of a subarea node to provide protocol support for adjacent peripheral nodes, such as: (a) transforming network addresses to local addresses, and vice versa; (b) performing session sequence numbering for low-function peripheral nodes; and (c) providing session-level pacing support. (2) The component that provides these capabilities. See also *path control (PC) network* and *network addressable unit (NAU).*

boundary network node (BNN). The programming component that performs FID2 (format identification type 2) conversion, channel data link control, pacing, and channel or device error recovery procedures for a locally attached station. These functions are similar to those performed by a network control program for an NCP-attached station.

boundary node. A subarea node that performs boundary functions. See also *boundary function.*

bracket. In SNA, one or more chains of request units (RUs) and their responses that are exchanged between the two LU-LU half-sessions and that represent a transaction between them. A bracket must be completed before another bracket can be started. Examples of brackets are data base inquiries/replies, update transactions, and remote job entry output sequences to work stations. See also *begin bracket* and *end bracket.*

bracket protocol. In SNA, a data flow control protocol in which exchanges between the two LU-LU half-sessions are achieved through the use of brackets, with one LU designated at session activation as the first speaker and the other as the bidder. The bracket protocol involves bracket initiation and termination rules. See also *bidder* and *first speaker.*

browse. A way of looking at a file that does not allow you to change it.

BSC. Binary synchronous communication.

BTU. Basic transmission unit.

buffer. A portion of storage for temporarily holding input or output data.

buffer group. In VTAM, a group of buffers associated with one or more contiguous, related entries in a buffer list. The buffers may be located in discontiguous areas of storage and may be combined into one or more request units.

buffer list. In VTAM, a contiguous set of control blocks (buffer list entries) that allow an application program to send function management data (FMD) from a number of discontiguous buffers with a single SEND macro instruction.

buffer list entry. A control block within a buffer list that points to a buffer containing function management (FM) data to be sent.

cancel closedown. A closedown in which VTAM is abnormally terminated either because of an unexpected situation or as the result of an operator command. See also *orderly closedown* and *quick closedown.*

CCP. Configuration control program facility.

CCS. Console communication services.

CDNM session. Cross-domain network manager session.

CDRM. Cross-domain resource manager.

CDRSC. Cross-domain resource.

CEB. Conditional end bracket.

chain. See *RU chain.*

change-direction protocol. In SNA, a data flow control protocol in which the sending logical unit (LU) stops sending normal-flow requests, signals this fact to the receiving LU using the change-direction indicator (in the request header of the last request of the last chain), and prepares to receive requests.

channel adapter. A communication controller hardware unit used to attach the controller to a System/360 or a System/370 channel.

channel-attached. Pertaining to the attachment of devices directly by data channels (I/O channels) to a host processor. Contrast with *link-attached.* Synonymous with *local-attached.*

channel-attachment major node. (1) A major node that includes an NCP that is channel-attached to a data host. (2) A major node that may include minor nodes that are the line groups and lines that represent a channel attachment to an adjacent (channel-attached) host. (3) In VM or VSE operating systems, a major node that may include minor nodes that are resources (host processors, NCPs, line groups, lines, SNA physical units and logical units, cluster controllers, and terminals) attached through a communication adapter.

character-coded. Synonym for *unformatted.*

character times. In CCP, the maximum number of times the temporary text delay character can be sent to a terminal before the operation stops or that can be sent between the end of a receive and the beginning of a transmit operation.

CICS. Customer Information Control System.

CID. Communication identifier.

CINIT. A network services request sent from a system services control point (SSCP) to a logical unit (LU) asking that LU to establish a session with another LU and to act as the primary end of the session.

class of service (COS). In SNA, a designation of the path control network characteristics, such as path security, transmission priority, and bandwidth, that apply to a particular session. The end user designates class of service at session initiation by using a symbolic name that is mapped into a list of virtual routes, any one of which can be selected for the session to provide the requested level of service.

cleanup. A network services request, sent by a system services control unit (SSCP) to a logical unit (LU), that causes a particular LU-LU session with that LU to be ended immediately and without the participation of either the other LU or its SSCP.

clear data. Data that is not enciphered. Synonymous with *plaintext.*

clear session. A session in which only clear data is transmitted or received. Contrast with *cryptographic session.*

CLIST. Command list.

clocking. In CCP, the use of clock pulses to synchronize data and control characters sent on a line.

closedown. The deactivation of a device, program, or system. See *cancel closedown, orderly closedown,* and *quick closedown.*

cluster controller. A device that can control the input/output operations of more than one device connected to it. A cluster controller may be controlled by a program stored and executed in the unit; for example, the IBM 3601 Finance Communication Controller. Or it may be controlled entirely by hardware; for example, the IBM 3272 Control Unit.

CMC. Communication management configuration.

CMS. Conversational Monitor System.

CNM. Communication network management.

command. (1) A request from a terminal for the performance of an operation or the execution of a particular program. (2) In SNA, any field set in the transmission header (TH), request header (RH), and sometimes portions of a request unit (RU), that initiates an action or that begins a protocol; for example: (a) Bind Session (session-control request unit), a command that activates an LU-LU session, (b) the change-direction indicator in the RH of the last RU of a chain, (c) the virtual route reset window indicator in a FID4 transmission header. See also *VTAM operator command.*

command facility. The component of NetView that is a base for command processors that can monitor, control, and improve the operation of a network.

command list (CLIST). In NetView, a sequential list of commands and control statements that is assigned a name. When the name is invoked (as a command) the commands in the list are executed.

command processor. A program that performs an operation specified by a command.

communication adapter. An optional hardware feature, available on certain processors, that permits communication lines to be attached to the processors.

communication common carrier. In the United States and Canada, a public data transmission service that provides the general public with transmission service facilities; for example, a telephone or telegraph company.

communication control character. Synonym for *transmission control character.*

communication control unit. A communication device that controls the transmission of data over lines in a network. Communication control units include transmission control units (such as the 2702 Transmission Control Unit) and communication controllers (such as the 3705 or 3725).

communication controller. A type of communication control unit whose operations are controlled by one or more programs stored and executed in the unit; for example, the IBM 3725 Communication Controller. It manages the details of line control and the routing of data through a network.

communication identifier (CID). In VTAM, a key for locating the control blocks that represent a session. The key is created during the session-establishment procedure and deleted when the session ends.

communication line. Deprecated term for *telecommunication line* and *transmission line.*

communication macro instructions. In VTAM, the set of RPL-based macro instructions used to communicate during a session.

communication management configuration (CMC). (1) In VTAM, a technique for configuring a network that allows for the consolidation of many network management functions for the entire network in a single host processor. (2) A multiple-domain network configuration in which one of the hosts, called the communication management host, performs most of the controlling functions for the network, thus allowing the other hosts, called data hosts, to process applications. This is accomplished by configuring the network so that the communication management host owns most of the resources in the network that are not application programs. The resources that are not owned by the communication management host are the resources that are channel-attached stations of data hosts.

communication management host. The host processor in a communication management configuration that does all network-control functions in the network except for the control of devices channel-attached to data hosts. Contrast with *data host.*

communication network management (CNM). The process of designing, installing, operating, and managing the distribution of information and controls among end users of communication systems.

communication network management (CNM) application program. A VTAM application program that issues and receives formatted management services request units for physical units. For example, NetView.

communication network management (CNM) interface. The interface that the access method provides to an application program for handling data and commands associated with communication system management. CNM data and commands are handled across this interface.

communication network management (CNM) processor. A program that manages one of the functions of a communications system. A CNM processor is executed under control of NetView.

communication scanner processor (CSP). A processor in the 3725 Communication Controller that contains a microprocessor with control code. The code controls transmission of data over links attached to the CSP.

compound command processor. A series of commands that appears to run as a single command. It can have interactions with other tasks or with tasks in other domains.

conditional end bracket (CEB). In SNA, the value (binary 1) of the conditional end bracket indicator in the request header (RH) of the last request of the last chain of a bracket; the value denotes the end of the bracket. Contrast with *end bracket*. See also *begin bracket* and *bracket*.

configuration. (1) (TC97) The arrangement of a computer system or network as defined by the nature, number, and the chief characteristics of its functional units. The term may refer to a hardware or a software configuration. (2) The devices and programs that make up a system, subsystem, or network. (3) In CCP, the arrangement of controllers, lines, and terminals attached to an IBM 3710 Network Controller. Also, the collective set of item definitions that describe such a configuration.

Configuration control program (CCP) facility. An SSP interactive application program facility by which configuration definitions for the IBM 3710 Network Controller can be created, modified, and maintained.

configuration report program (CRP). An SSP utility program that creates a configuration report listing network resources and resource attributes for networks with NCP, EP, PEP, or VTAM.

configuration restart. In VTAM, the recovery facility that can be used after a failure or deactivation of a major node, VTAM, or the host processor to restore the domain to its status at the time of the failure or deactivation.

configuration services. In SNA, one of the types of network services in the system services control point (SSCP) and in the physical unit (PU); configuration services activate, deactivate, and maintain the status of physical units, links, and link stations. Configuration services also shut down and restart network elements and modify path control routing tables and address-translation tables. See also *maintenance services*, *management services*, *network services*, *session services*, and *system services control point*.

connected. In VTAM, pertaining to a physical unit (PU) or logical unit (LU) that has an active physical path to the host processor containing the system services control point (SSCP) that controls the PU or LU.

connection. Synonym for *physical connection*.

connection point manager. In SNA, a component of the transmission control layer that: (1) performs session-level pacing of normal-flow requests, (2) checks sequence numbers of received request units, (3) verifies that request units do not exceed the maximum permissible size, (4) routes incoming request units to their destinations within the half-session, and (5) enciphers and deciphers FMD request units when cryptography is selected. The connection point manager coordinates the normal and expedited flows for one half-session.

console communications services (CCS). The SNA facility that acts as an interface between the control program and the VSCS component of VTAM for VM.

continue-any mode. In VTAM, a state into which a session is placed that allows its input to satisfy a RECEIVE request issued in any-mode. While this state exists, input on the session can also satisfy RECEIVE requests issued in specific-mode. Contrast with *continue-specific mode*.

continue-specific mode. In VTAM, a state into which a session is placed that allows its input to satisfy only RECEIVE requests issued in specific-mode. Contrast with *continue-any mode*.

control block. (ISO) A storage area used by a computer program to hold control information.

control program (CP). The VM operating system that manages the real processor's resources and is responsible for simulating System/370s for individual users.

controlling application program. In VTAM, an application program with which a secondary logical unit (other than an application program) is automatically put in session whenever the secondary logical unit is available. See also *automatic logon* and *controlling logical unit*.

controlling logical unit. In VTAM, a logical unit with which a secondary logical unit (other than an application program) is automatically put in session whenever the secondary logical unit is available. A controlling logical unit can be either an application program or a device-type logical unit. See also *automatic logon* and *controlling application program.*

control statement. A statement in a command list that controls the processing sequence of the command list or allows the command list to send messages to the operator and receive input from the operator.

Conversational Monitor System (CMS). A VM application program for general interactive time sharing, problem solving, and program development.

converted command. An intermediate form of a character-coded command produced by VTAM through use of an unformatted system services definition table. The format of a converted command is fixed; the unformatted system services definition table must be constructed in such a manner that the character-coded command (as entered by a logical unit) is converted into the predefined, converted command format. See also *unformatted.*

COS. Class of service.

coupler. A hardware device that connects a modem to a public phone system in much the same way that a telephone does.

CP. Control program.

cross keys. Synonym for *cross-domain keys.*

cross-domain. In SNA, pertaining to control of resources involving more than one domain.

cross-domain keys. In SNA, a pair of cryptographic keys used by a system services control point (SSCP) to encipher the session cryptography key that is sent to another SSCP and to decipher the session cryptography key that is received from the other SSCP during initiation of cross-domain LU-LU sessions that use session-level cryptography. Synonymous with *cross keys.*

cross-domain link. (1) A subarea link connecting two subareas that are in different domains. (2) A link physically connecting two domains.

cross-domain network manager (CDNM) session. A session between two network managers (NetView or NCCF) in separate domains.

cross-domain resource (CDRSC). A resource owned by a cross-domain resource manager (CDRM) in another domain but known by the CDRM in this domain by network name and associated CDRM.

cross-domain resource manager (CDRM). In VTAM, the function in the system services control point (SSCP) that controls initiation and termination of cross-domain sessions.

cross-network. In SNA, pertaining to control or resources involving more than one SNA network.

cross-network LU-LU session. In SNA, a session between logical units (LUs) in different networks.

cross-network session. An LU-LU or SSCP-SSCP session whose path traverses more than one SNA network.

cross-subarea. In SNA, pertaining to control of resources involving more than one subarea node.

cross-subarea link. A link between two adjacent subarea nodes.

CRP. Configuration report program.

CRV. Cryptography verification.

cryptographic. Pertaining to the transformation of data to conceal its meaning. See also *encipher* and *decipher.*

cryptographic algorithm. A set of rules that specify the mathematical steps required to encipher and decipher data.

cryptographic key. In systems using the Data Encryption Standard (DES), a 64-bit value (containing 56 independent bits and 8 parity bits) provided as input to the algorithm in determining the output of the algorithm. See *cross-domain keys, session cryptography key, host master key,* and *secondary logical unit key.*

cryptographic session. In SNA products, an LU-LU session in which a function management data (FMD) request may be enciphered before it is transmitted and deciphered after it is received. Contrast with *clear session.* See *required cryptographic session* and *selective cryptographic session.*

cryptographic session key. In SNA, deprecated term for *session cryptography key.*

cryptography verification (CRV) request. A request unit sent by the primary logical unit (PLU) to the secondary logical unit (SLU) as part of cryptographic session establishment, to allow the SLU to verify that the PLU is using the correct cryptographic session key.

CSP. Communication scanner processor.

Customer Information Control System (CICS). A program product that enables transactions entered at remote terminals to be processed concurrently by

user-written application programs. It also includes facilities for building, using, and maintaining data bases.

CWALL. An NCP threshold of buffer availability, below which the NCP will accept only high-priority path information units (PIUs).

DAF. Destination address field.

DASD. Direct access storage device.

data channel. A device that connects a processor and main storage with I/O storage units. Synonymous with *input/output channel* and *I/O channel.*

data check. An indication that a transmission is faulty. For example, in SDLC a frame check sequence (FCS) error.

data circuit-terminating equipment (DCE). (TC97) The equipment installed at the user's premises that provides all functions required to establish, maintain, and terminate a connection, and the signal conversion and coding between the data terminal equipment (DTE) and the line. The DCE may be separate equipment or an integral part of other equipment.

data-encrypting key. A key used to encipher and decipher data transmitted in a cryptographic session. Contrast with *key-encrypting key.* See *session cryptography key.*

Data Encryption Standard (DES) algorithm. A cryptographic algorithm designed to encipher and decipher data using a 64-bit cryptographic key, as specified in the *Federal Information Processing Standard Publication 46*, January 15, 1977.

data flow control (DFC). In SNA, a request/response unit (RU) category used for requests and responses exchanged between the data flow control layer in one half-session and the data flow control layer in the session partner.

data flow control (DFC) layer. In SNA, the layer within a half-session that (1) controls whether the half-session can send, receive, or concurrently send and receive request units (RUs); (2) groups related RUs into RU chains; (3) delimits transactions via the bracket protocol; (4) controls the interlocking of requests and responses in accordance with control modes specified at session activation; (5) generates sequence numbers; and (6) correlates requests and responses.

data flow control (DFC) protocol. In SNA, the sequencing rules for requests and responses by which network addressable units (NAUs) in a session coordinate and control data transfer and other operations. For example, see *bracket protocol.*

data flow synchronous (DFSYN) response. In VTAM, a normal-flow response that is treated as a normal-flow request so that it may be received in sequence with normal-flow requests.

data host. In a communication management configuration, a host that is dedicated to processing applications and does not control network resources, except for its channel-attached or communication adapter-attached devices. Contrast with *communication management host.*

data link. In SNA, synonym for *link.*

data link control (DLC) layer. In SNA, the layer that consists of the link stations that schedule data transfer over a link between two nodes and perform error control for the link. Examples of data link control are SDLC for serial-by-bit link connection and data link control for the System/370 channel.

data link control protocol. 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 services command processor (DSCP). A component that structures a request for recording and retrieving data in the application program's data base and for soliciting data from a device in the network.

data services manager (DSM). A function in NetView that provides VSAM services for data storage and retrieval.

data services task (DST). The NetView subtask that gathers, records, and manages data in a VSAM file that contains network management information.

data terminal equipment (DTE). (TC97) 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.

data traffic reset state. The state a session usually enters before the start data traffic state, and after Clear or Bind Session (if cryptography verification (CRV) is used). While a session is in this state, requests and responses for data and data flow control cannot be sent. Only certain session control requests can be sent. See also *command.*

data types. In NetView, a concept to describe the organization of panels. Data types are defined as alerts, events, and statistics. Data types are combined with resource types and display types to describe NetView's display organization. See also *display types* and *resource types.*

DCE. Data circuit-terminating equipment.

deactivate. To take a resource of a node out of service, rendering it inoperable, or to place it in a state in which it cannot perform the functions for which it was designed. Contrast with *activate*.

decipher. To convert enciphered data into clear data. Contrast with *encipher*. Synonymous with *decrypt*.

decrypt. To convert encrypted data into clear data. Contrast with *encrypt*. Synonym for *decipher*.

decryption. The unscrambling of data using an algorithm which works under the control of a key. The key allows data to be protected even when the algorithm is unknown. Data is unscrambled after transmission. Contrast with *encryption*.

default SSCP list. A list of system services control points (SSCPs), either in VTAM's network or another network, that can be used when no predefined cross-domain resource (CDRSC) or name translation function is provided specifying an LU's owning cross-domain resource manager (CDRM). This list is filed as a part of an adjacent SSCP table in the VTAM definition library.

default SSCP selection. A VTAM function that selects a set of one or more system services control points (SSCPs) to which a session request can be routed when there is no predefined cross-domain resource (CDRSC) or name translation function provided that specifies an LU's owning cross-domain resource manager (CDRM). See also *default SSCP list*.

definite response (DR). In SNA, a value in the form-of-response-requested field of the request header. The value directs the receiver of the request to return a response unconditionally, whether positive or negative, to that request. Contrast with *exception response* and *no response*.

definition statement. (1) In VTAM, the statement that describes an element of the network. (2) In NCP, a type of instruction that defines a resource to the NCP. See also *macro instruction*.

delay compensation. In CCP, a responding arrangement by which the IBM 3710 Network Controller answers for a receiving station.

delayed-request mode. In SNA, an operational mode in which the sender may continue sending request units on the normal flow after sending a definite-response request chain on that flow, without waiting to receive the response to that chain. Contrast with *immediate-request mode*.

delayed-response mode. In SNA, an operational mode in which the receiver of normal-flow request units can return responses to the sender in a sequence different from that in which the corresponding request units (RUs) were sent. An exception is the response to a CHASE request. Contrast with *immediate-response mode*.

DELTA disk. The virtual disk in a VM operating system that contains program temporary fixes (PTFs) that have been installed but not merged. See *BASE disk*, *MERGE disk*, *RUN disk*, and *ZAP disk*.

DES. Data Encryption Standard.

designated gateway SSCP. A gateway system services control point (SSCP) designated to perform all the gateway control functions during LU-LU session setup.

destination address field (DAF). In SNA, a field in a FID0 or FID1 transmission header that contains the network address of the destination.

destination logical unit (DLU). The logical unit to which data is to be sent. Contrast with *origin logical unit (OLU)*.

destination subarea field (DSAF). In SNA, a field in a FID4 transmission header that contains a subarea address, which combined with the element address in the destination element field gives the complete network address of the destination network addressable unit (NAU). Contrast with *origin subarea field*.

device control character. * (ISO) A control character used for the control of ancillary devices associated with a data processing system or data communication system, for example, for switching such devices on or off.

device-type logical unit. In VTAM, a logical unit that has a session limit of one and usually acts as the secondary end of a session. It is typically an SNA terminal (such as a logical unit for a 3270 terminal or a logical unit for a 3790 application program). It could be the primary end of a session, for example, the logical unit representing the Network Routing Facility (NRF) logical unit. See also *peripheral node*.

DFC. Data flow control.

DFSYN response. Data flow synchronous response.

dial-in. Refers to the direction in which a switched connection is requested by any node or terminal other than the receiving host or an NCP.

dial-out. Refers to the direction in which a switched connection is requested by a host or an NCP.

direct access storage device (DASD). A device in which the access time is effectively independent of the location of the data. For example, a disk.

direct activation. In VTAM, the activation of a resource as a result of an activation command

specifically naming the resource. See *automatic activation*. Contrast with *indirect activation*.

direct deactivation. In VTAM, the deactivation of a resource as a result of a deactivation command specifically naming the resource. See also *automatic deactivation*. Contrast with *indirect deactivation*.

directory. In VM, a control program (CP) disk that defines each virtual machine's normal configuration.

disabled. In VTAM, pertaining to a logical unit (LU) that has indicated to its system services control point (SSCP) that it is temporarily not ready to establish LU-LU sessions. An initiate request for a session with a disabled logical unit (LU) can specify that the session be queued by the SSCP until the LU becomes enabled. The LU can separately indicate whether this applies to its ability to act as a primary logical unit (PLU) or a secondary logical unit (SLU). See also *enabled* and *inhibited*.

disconnection. The termination of a physical connection.

discontiguous shared segment. An area of virtual storage outside the address range of a virtual machine. It can contain read-only data or reentrant code. It connects discontiguous segments to a virtual machine's address space so programs can be fetched.

display. (1) To present information for viewing, usually on a terminal screen or a hard-copy device. (2) A device or medium on which information is presented, such as a terminal screen. (3) Deprecated term for *panel*.

display levels. Synonym for *display types*.

display types. In NetView, a concept to describe the organization of panels. Display types are defined as total, most recent, user action, and detail. Display types are combined with resource types and data types to describe NetView's panel organization. See *data types* and *resource types*. Synonymous with *display levels*.

DLC. Data link control.

DLU. Destination logical unit.

domain. (1) An access method, its application programs, communication controllers, connecting lines, modems, and attached terminals. (2) In SNA, a system services control point (SSCP) and the physical units (PUs), logical units (LUs), links, link stations, and all the associated resources that the SSCP has the ability to control by means of activation requests and deactivation requests. See also *single-domain network* and *multiple-domain network*.

domain operator. In a multiple-domain network, the person or program that controls the operation of the resources controlled by one system services control point. Contrast with *network operator* (2).

double recording. In NetView, refers to the recording of certain individual events under two resource levels.

downstream. In the direction of data flow from the host to the end user. Contrast with *upstream*.

downstream device. For the IBM 3710 Network Controller, a device located in a network such that the 3710 is positioned between the device and a host. A display terminal downstream from the 3710 is an example of a downstream device. Contrast with *upstream device*.

downstream line. For the IBM 3710 Network Controller, a telecommunication line attaching a downstream device to a 3710. Contrast with *upstream line*.

Downstream Load Utility (DSLU). A program product that uses the communication network management (CNM) interface to support the load requirements of certain type 2 physical units, such as the IBM 3644 Automatic Data Unit and the IBM 8775 Display Terminal.

DR. (1) In NCP and CCP, dynamic reconfiguration. (2) In SNA, definite response.

DRDS. Dynamic reconfiguration data set.

DSAF. Destination subarea field.

DSCP. Data services command processor.

DSM. Data services manager.

DST. Data services task.

DTE. Data terminal equipment.

dump. (1) Computer printout of storage. (2) To write the contents of all or part of storage to an external medium as a safeguard against errors or in connection with debugging. (3) (ISO) Data that have been dumped.

duplex. * In data communication, pertaining to a simultaneous two-way independent transmission in both directions. Synonymous with *full duplex*. Contrast with *half duplex*.

dynamic LPDA. A function enabling a NetView application to set or query the Link Problem Determination Aid (LPDA) status for a link or station.

dynamic reconfiguration (DR). The process of changing the network configuration (peripheral PUs and LUs) without regenerating complete configuration tables.

dynamic reconfiguration data set (DRDS). In VTAM, a data set used for storing definition data that can be applied to a generated communication controller configuration at the operator's request. See also *dynamic reconfiguration.*

dynamic threshold alteration. An NCP function to allow a network operator to dynamically change the traffic count and temporary error threshold values associated with SDLC and BSC devices.

dynamic threshold query. An NCP function to allow a network operator to query the current settings of a traffic count or temporary error threshold value associated with an SDLC or BSC device.

EBCDIC. * Extended binary-coded decimal interchange code. A coded character set consisting of 8-bit coded characters.

ECB. Event control block.

echo. The return of characters to the originating start-stop device to verify that a message was sent correctly.

echo check. A check to determine the correctness of the transmission of data in which the received data are returned to the source for comparison with the originally transmitted data.

ECL. Electronic cabling link.

ED. Enciphered data.

EIA. Electronic Industries Association. Provides interface standards for electrical and electronic equipment.

element. (1) A field in the network address. (2) The particular resource within a subarea identified by the element address. See also *subarea.*

element address. In SNA, a value in the element address field of the network address identifying a specific resource within a subarea. See *subarea address.*

emulation mode. The function of a network control program that enables it to perform activities equivalent to those performed by a transmission control unit. Contrast with *network control mode.*

Emulation Program (EP). An IBM control program that allows a channel-attached 3705 or 3725 communication controller to emulate the functions of an IBM 2701 Data Adapter Unit, an IBM 2702 Transmission Control, or an IBM 2703 Transmission Control. See also *network control program.*

enabled. In VTAM, pertaining to a logical unit (LU) that has indicated to its system services control point (SSCP) that it is now ready to establish LU-LU sessions. The LU can separately indicate whether this prevents it from acting as a primary logical unit (PLU) or as a secondary logical unit (SLU). See also *disabled* and *inhibited.*

encipher. (1) To scramble data or convert it, before transmission, to a secret code that masks the meaning of the data to any unauthorized recipient. (2) In VTAM, to convert clear data into enciphered data. Contrast with *decipher.* Synonymous with *encrypt.*

enciphered data (ED). Data whose meaning is concealed from unauthorized users.

encrypt. Synonym for *encipher.*

encryption. The scrambling or encoding of data using an algorithm which works under the control of a key. The key allows data to be protected even when the algorithm is unknown. Data is scrambled prior to transmission. Contrast with *decryption.*

end bracket. In SNA, the value (binary 1) of the end bracket indicator in the request header (RH) of the first request of the last chain of a bracket; the value denotes the end of the bracket. Contrast with *begin bracket.* See also *bracket.*

end-of-transmission (EOT). The specific character, or sequence of characters, that indicates no more data.

end-of-transmission (EOT) handshaking. When a 3710 sends EOT characters over an idle line and waits for return characters. If no EOT response is returned, the 3710 breaks the session.

end user. In SNA, the ultimate source or destination of application data flowing through an SNA network. An end user may be an application program or a terminal operator.

EOT. End-of-transmission.

EP. Emulation Program.

ER. (1) Explicit route. (2) Exception response.

error-to-traffic (E/T). The number of temporary errors compared to the traffic associated with a resource.

ESTAE. Extended specify task abnormal exit.

E/T. Error-to-traffic.

event. (1) In NetView, a record indicating irregularities of operation in physical elements of a network. (2) An occurrence of significance to a task; typically, the completion of an asynchronous operation, such as an input/output operation.

event control block (ECB). A control block used to represent the status of an event.

exception request (EXR). In SNA, a request that replaces another message unit in which an error has been detected.

exception response (ER). In SNA, a negative response shown as a value in the form-of-response-requested field of a request header (RH). An exception response is sent only if a request is unacceptable as received or cannot be processed. Contrast with *definite response* and *no response*. See also *negative response*.

EXEC. In a VM operating system, a user-written command file that contains CMS commands, other user-written commands, and execution control statements, such as branches.

exit list (EXLST). In VSAM and VTAM, a control block that contains the addresses of routines that receive control when specified events occur during execution; for example, routines that handle session-establishment request processing or I/O errors.

exit routine. Any of several types of special-purpose user-written routines. See *accounting exit routine, authorization exit routine, logon-interpret routine, virtual route selection exit routine, EXLST exit routine*, and *RPL exit routine*.

EXLST exit routine. In VTAM, a routine whose address has been placed in an exit list (EXLST) control block. The addresses are placed there with the EXLST macro instruction, and the routines are named according to their corresponding operand; hence DFASY exit routine, TPEND exit routine, RELREQ exit routine, and so forth. All exit list routines are coded by the VTAM application programmer. Contrast with *RPL exit routine*.

expedited flow. In SNA, a data flow designated in the transmission header (TH) that is used to carry network control, session control, and various data flow control request/response units (RUs); the expedited flow is separate from the normal flow (which carries primarily end-user data) and can be used for commands that affect the normal flow. Contrast with *normal flow*.

explicit command. In NetView, using a direct command to start an operation or to request information instead of stepping through the panel hierarchy to do so.

explicit route (ER). In SNA, the path control network elements, including a specific set of one or more transmission groups, that connect two subarea nodes. An explicit route is identified by an origin subarea address, a destination subarea address, an explicit route number, and a reverse explicit route number. Contrast with *virtual route (VR)*. See also *path* and *route extension*.

explicit route length. In SNA, the number of transmission groups in an explicit route.

EXR. Exception request.

extended network addressing. The network addressing system that splits the address into an 8-bit subarea and a 15-bit element portion. The subarea portion of the address is used to address host processors or communication controllers. The element portion is used to permit processors or controllers to address resources.

extended recovery facility (XRF). Software designed to minimize the effect of failures in MVS, VTAM, the host processor, or IMS/VS on sessions between IMS/VS and designated terminals. It provides an alternate subsystem to take over failing sessions.

extended specify task abnormal exit (ESTAE). In VTAM, an MVS macro instruction that provides recovery capability and gives control to the user-specified exit routine for processing, diagnosing an ABEND, or specifying a retry address.

fanout. A modem feature that permits up to four controllers to be attached to one modem. See also *tailing*.

FASTRUN. One of several options available with the NCP/EP Definition Facility (NDF) that indicates only the syntax is to be checked in generation definition statements.

FDX. Full duplex.

feature. A particular part of an IBM product that a customer can order separately.

feedback information. In VTAM, information that is placed in certain RPL fields when an RPL-based macro instruction is completed.

FIC. First-in-chain.

FID. Format identification.

field-formatted. Pertaining to a request or response that is encoded into fields, each having a specified format such as binary codes, bit-significant flags, and symbolic names. Contrast with *character-coded*.

field-formatted request. In SNA, a request that is encoded into fields, each having a specified format such as binary codes, binary counts, bit-significant flags, and symbolic names; a format indicator in the

request/response header (RH) for the request is set to zero. Contrast with *character-coded*.

filter. In NetView, a function that limits the data that is to be recorded on the data base and displayed at the terminal. See *recording filter* and *viewing filter*.

first-in-chain (FIC). A request unit (RU) whose request header (RH) begin chain indicator is on and whose RH end chain indicator is off. See also *RU chain*.

first speaker. In SNA, the LU-LU half-session defined at session activation as: (1) able to begin a bracket without requesting permission from the other LU-LU half-session to do so, and (2) winning contention if both half-sessions attempt to begin a bracket simultaneously. Contrast with *bidder*. See also *bracket protocol*.

flow control. In SNA, the process of managing the rate at which data traffic passes between components of the network. The purpose of flow control is to optimize the rate of flow of message units, with minimum congestion in the network; that is, to neither overflow the buffers at the receiver or at intermediate routing nodes, nor leave the receiver waiting for more message units. See also *pacing, session-level pacing*, and *virtual route pacing*.

FMD. Function management data.

FMH. Function management header.

format identification (FID) field. In SNA, a field in each transmission header (TH) that indicates the format of the TH; that is, the presence or absence of certain fields. TH formats differ in accordance with the types of nodes between which they pass. The six FID types are:

FID0, used for traffic involving non-SNA devices between adjacent subarea nodes when either or both nodes do not support explicit route and virtual route protocols.

FID1, used for traffic between adjacent subarea nodes when either or both nodes do not support explicit route and virtual route protocols.

FID2, used for traffic between a subarea node and an adjacent PU type 2 peripheral node.

FID3, used for traffic between a subarea node and an adjacent PU type 1 peripheral node.

FID4, used for traffic between adjacent subarea nodes when both nodes support explicit route and virtual route protocols.

FIDF, used for certain commands (for example, for transmission group control) sent between adjacent subarea nodes when both nodes support explicit route and virtual route protocols.

formatted system services. A portion of VTAM that provides certain system services as a result of receiving a field-formatted command, such as an Initiate or Terminate command. Contrast with *unformatted system services (USS)*. See also *field-formatted*.

frame. (1) The unit of transmission in some local area networks, including the IBM Token-Ring Network. It includes delimiters, control characters, information, and checking characters. (2) In SDLC, the vehicle for every command, every response, and all information that is transmitted using SDLC procedures.

full duplex (FDX). Synonym for *duplex*.

full-screen mode. A form of panel presentation in NetView where the contents of an entire terminal screen can be displayed at once. Full-screen mode can be used for fill-in-the-blanks prompting. Contrast with *line mode*.

function management data (FMD). In SNA, a request unit (RU) category used for end-user data exchanged between logical units (LUs) and for requests and responses exchanged between network services components of LUs, physical units (PUs), and system services control points (SSCPs).

function management header (FMH). In SNA, one or more headers, optionally present in the leading request units (RUs) of an RU chain, that allow one half-session in an LU-LU session to: (1) select a destination at the session partner and control the way in which the end-user data it sends is handled at the destination, (2) change the destination or the characteristics of the data during the session, and (3) transmit between session partners status or user information about the destination (for example, a program or device). FM headers can be used on LU-LU session types 0, 1, 4, and 6.

function management (FM) profile. In SNA, a specification of various data flow control protocols (such as RU chains and data flow control requests) and FMD options (such as use of FM headers, compression, and alternate codes) supported for a particular session. Each function management profile is identified by a number.

gateway. The combination of machines and programs that provide address translation, name translation, and system services control point (SSCP) rerouting between independent SNA networks to allow those networks to communicate. A gateway consists of one gateway NCP and at least one gateway SSCP.

gateway control functions. Functions performed by a gateway system services control point (SSCP) in conjunction with the gateway NCP to assign alias network address pairs for LU-LU sessions, assign virtual routes for the LU-LU sessions in adjacent networks, and translate network names within BIND RUs.

gateway host. A host node that contains a gateway system services control point (SSCP).

gateway NCP. An NCP that performs address translation to allow cross-network session traffic. The gateway NCP connects two or more independent SNA networks.

gateway node. Synonym for *gateway NCP.*

gateway SSCP. An SSCP that is capable of cross-network session initiation, termination, takedown, and session outage notification. A gateway SSCP is in session with the gateway NCP; it provides network name translation and assists the gateway NCP in setting up alias network addresses for cross-network sessions.

gateway-capable host. A host node that has a defined NETID and SSCPNAME but does not perform gateway control functions, such as cross-network session initiation and termination.

GCS. Group control system.

generalized path information unit trace (GPT). A record of the flow of path information units (PIUs) exchanged between the network control program and its attached resources. PIU trace records consist of up to 44 bytes of transmission header (TH), request/response header (RH), and request/response unit (RU) data.

generation. The process of assembling and link editing definition statements so that resources can be identified to all the necessary programs in a network.

generation definition. The definition statement of a resource used in generating a program.

generic bind. Synonym for *session activation request.*

generic unbind. Synonym for *session deactivation request.*

giga. One billion.

GPT. Generalized path information unit trace.

group control system (GCS). A component of VM that provides multi-programming and shared memory support to virtual machines. It is a saved system intended for use with SNA products.

group control system group. A group of virtual machines that share common storage and load the same saved-VM system through a control program (CP) command or directory entry.

half-duplex. * In data communication, pertaining to an alternate, one way at a time, independent transmission. Contrast with *duplex.*

half-session. In SNA, a component that provides FMD services, data flow control, and transmission control for one of the sessions of a network addressable unit (NAU). See also *primary half-session* and *secondary half-session.*

hard copy. A printed copy of machine output in a visually readable form; for example, printed reports, listings, documents, summaries, or network logs.

hard-copy task (HCT). The NetView subtask that controls the passage of data between NetView and the hard-copy network log device.

hardware monitor. The component of NetView that helps identify network hardware problems from a central control point using interactive display techniques.

HCF. Host Command Facility.

HCT. Hard-copy task.

help desk. An online information facility that guides the help desk operator through problem determination procedures.

help desk operator. A person who receives questions or problem reports from network users.

help panel. An online display that tells you how to use a command or another aspect of a product. See *task panel.*

High Performance Option (HPO). A program product that is an extension of VM/SP. It provides performance and operation enhancements for large system environments.

hierarchy. In NetView, the resource types, display types, and data types that make up the organization, or levels, in a network.

Host Command Facility (HCF). An IBM program product that enables a user at a System/370 terminal to access applications in systems such as the 8100 or System/36.

host LU. An SNA logical unit located in a host processor, for example, a VTAM application program. Contrast with *peripheral LU.*

host master key. In SNA, deprecated term for *master cryptography key.*

host processor. (1) (TC97) A processor that controls all or part of a user application network. (2) In a network, the processing unit in which the data communication access method resides. (3) In an SNA network, the processing unit that contains a system services control point (SSCP).

HPO. High Performance Option.

hung terminal. A terminal to which a session is disrupted and that cannot send or receive commands.

ICV. Initial chaining value.

idle character. (1) (CCITT/ITU) A control character that is sent when there is no information to be sent. (2) A character transmitted on a communication line that does not print or punch to the output component of the accepting terminal.

I-frame. An SDLC frame type for transmitting data. Other SDLC frame types are for control, status, and supervisory information.

immediate command. In NetView, a command (such as GO, CANCEL, or RESET) that can be executed while a regular command is being processed.

immediate-request mode. In SNA, an operational mode in which the sender stops sending request units (RUs) on a given flow (normal or expedited) after sending a definite-response request chain on that flow until that chain has been responded to. Contrast with *delayed-request mode.* See also *immediate-response mode.*

immediate-response mode. In SNA, an operational mode in which the receiver responds to request units (RUs) on a given normal flow in the order it receives them; that is, in a first-in, first-out sequence. Contrast with *delayed-response mode.* See also *immediate-request mode.*

IMR. Intensive mode recording.

IMS. Information Management System/Virtual Storage.

IMS/VS. Information Management System/Virtual Storage. Synonym for *IMS.*

inactive. In VTAM, describes the state of a resource that has not been activated or for which the VARY INACT command has been issued. Contrast with *active.* See also *inoperative.*

indirect activation. In VTAM, the activation of a lower-level resource of the resource hierarchy as a result of SCOPE or ISTATUS specifications related to an activation command naming a higher-level resource. Contrast with *direct activation.*

indirect deactivation. In VTAM, the deactivation of a lower-level resource of the resource hierarchy as a result of a deactivation command naming a higher-level resource. Contrast with *direct deactivation.*

Information/Management. A feature of the Information/System program product that provides interactive systems management applications for problem, change, and configuration management.

information management data base. A system management tool that helps collect, organize, and keep track of problems and their resolutions.

Information Management System (IMS). A general purpose system whose full name is Information Management System/Virtual Storage (IMS/VS). It enhances the capabilities of OS/VS for batch processing and telecommunication and allows users to access a computer-maintained data base through remote terminals.

Information/System. An interactive retrieval program with related utilities designed to provide systems programmers with keyword access to selected technical information contained in either of its companion products, Information/MVS or Information/VM-VSE.

inhibited. In VTAM, pertaining to a logical unit (LU) that has indicated to its system services control point (SSCP) that it is not ready to establish LU-LU sessions. An initiate request for a session with an inhibited LU will be rejected by the SSCP. The LU can separately indicate whether this applies to its ability to act as a primary logical unit (PLU) or as a secondary logical unit (SLU). See also *enabled* and *disabled.*

initial chaining value (ICV). An 8-byte pseudo-random number used to verify that both ends of a session with cryptography have the same session cryptography key. The initial chaining value is also used as input to the Data Encryption Standard (DES) algorithm to encipher or decipher data in a session with cryptography. Synonymous with *session seed.*

initiate. A network services request sent from a logical unit (LU) to a system services control point (SSCP) requesting that an LU-LU session be established.

inline exit routine. In VTAM, a SYNAD or LERAD exit routine. Contrast with *asynchronous exit routine.*

INN. Deprecated term for *intermediate routing node (IRN).*

inoperative. The condition of a resource that has been active, but is not. The resource may have failed,

received an INOP request, or is suspended while a reactivate command is being processed. See also *inactive*.

installation exit routine. In VTAM, a user-written exit routine that can perform functions related to initiation and termination of sessions and is run as part of VTAM rather than as part of an application program. Examples are the accounting, authorization, logon-interpret, and virtual route selection exit routines. Contrast with *application program exit routine*.

intensive mode recording (IMR). An NCP function that forces recording of temporary errors for a specified resource.

interactive problem control system (IPCS). A VM facility for diagnosing problems, and managing problem information and status. IPCS is the principal means for diagnosing virtual machine dumps.

Interactive System Productivity Facility (ISPF). An IBM program product that serves as a full screen editor and dialogue manager. Used for writing application programs, it provides a means of generating standard screen panels and interactive dialogues between the application programmer and terminal user.

interconnected networks. SNA networks connected by gateways.

interconnection. See *SNA network interconnection*.

interface. * A shared boundary. An interface might be a hardware component to link two devices or it might be a portion of storage or registers accessed by two or more computer programs.

intermediate routing function. In SNA, a path control capability in a subarea node that receives and routes path information units (PIUs) that neither originate in nor are destined for network addressable units (NAUs) in the subarea node. Contrast with *boundary function*.

intermediate routing node (IRN). In SNA, a subarea node with intermediate routing function. A subarea node may be a boundary node, an intermediate routing node, both, or neither, depending on how it is used in the network.

intermediate SSCP. An SSCP along a session initiation path that owns neither of the LUs involved in a cross-network LU-LU session.

interpret table. In VTAM, an installation-defined correlation list that translates an argument into a string of eight characters. Interpret tables can be used to translate logon data into the name of an application program for which the logon is intended.

inter-user communication vehicle (IUCV). A VM facility for passing data between virtual machines and VM components.

IPCS. Interactive problem control system.

IRN. Intermediate routing node.

ISPF. Interactive System Productivity Facility.

ISTATUS. In VTAM and NCP, a definition specification method for indicating the initial status of resources. See also *indirect activation*.

item. In CCP, any of the components, such as communication controllers, lines, cluster controllers, and terminals, that comprise an IBM 3710 Network Controller configuration.

IUCV. Inter-user communication vehicle.

JCL. Job control language.

job control language (JCL). * A problem-oriented language designed to express statements in a job that are used to identify the job or describe its requirements to an operating system.

Kanji. A character set of symbols used in Japanese ideographic alphabets.

Katakana. A character set of symbols used in one of the two common Japanese phonetic alphabets.

key-encrypting key. A key used in sessions with cryptography to encipher and decipher other keys. Contrast with *data-encrypting key*.

keyword. (1) * One of the predefined words of an artificial language. (2) One of the significant and informative words in a title or document that describes the content of that document. (3) A symbol that identifies a parameter. (4) A part of a command operand that consists of a specific character string (such as DSNAME=).

large message performance enhancement outbound (LMPEO). In VTAM, a facility in which VTAM reformats function management (FM) data that exceeds the maximum request unit (RU) size (as specified in the BIND) into a chain or partial chain of RUs.

last-in-chain (LIC). A request unit (RU) whose request header (RH) end chain indicator is on and whose RH begin chain indicator is off. See also *RU chain*.

LERAD exit routine. A synchronous EXLST exit routine that is entered automatically when a logic error is detected.

LIC. Last-in-chain.

line. See *communication line.*

line mode. A form of screen presentation in which the information is presented a line at a time in the message area of the terminal screen. Contrast with *full-screen mode.*

line control. Synonym for *data link control protocol.*

line group. One or more telecommunication lines of the same type that can be activated and deactivated as a unit.

line probe. A generic term for the IBM 3867 Link Diagnostic Unit, a device that provides the NetView user with line quality data and other link information.

line speed. The number of binary digits that can be sent over a telecommunication line in one second, expressed in bits per second (bps).

link. In SNA, the combination of the link connection and the link stations joining network nodes; for example: (1) a System/370 channel and its associated protocols, (2) a serial-by-bit connection under the control of Synchronous Data Link Control (SDLC). A link connection is the physical medium of transmission. A link, however, is both logical and physical. Synonymous with *data link.*

link connection. In SNA, the physical equipment providing two-way communication between one link station and one or more other link stations; for example, a telecommunication line and data circuit terminating equipment (DCE).

link level 2 test. See *link test.*

Link Problem Determination Aid (LPDA). A series of testing procedures initiated by NCP that provide modem status, attached device status, and the overall quality of a communications link.

link station. (1) In SNA, the combination of hardware and software that allows a node to attach to and provide control for a link. (2) In VTAM, a named resource within a subarea node that represents another subarea node that is attached by a cross-subarea link. In the resource hierarchy, the link station is subordinate to the cross-subarea link.

link status (LS). Information maintained by local and remote modems.

link test. In SNA, a test in which one link station returns data received from another link station without changing the data in order to test the operation of the link. Three tests can be made; they differ in the resources that are dedicated during the test.

link-attached. In VTAM, pertaining to devices that are physically connected by a telecommunication line. Synonymous with *remote.* Contrast with *channel-attached.*

LMPEO. Large message performance enhancement outbound.

load module. (ISO) A program unit that is suitable for loading into main storage for execution; it is usually the output of a linkage editor.

local address. In SNA, an address used in a peripheral node in place of an SNA network address and transformed to or from an SNA network address by the boundary function in a subarea node.

local-attached. Deprecated term for *channel-attached.*

local non-SNA major node. In VTAM, a major node whose minor nodes are channel-attached non-SNA terminals.

local session identification (LSID). In SNA, a field in a FID3 (format identification type 3) transmission header that contains an indication of the type of session (SSCP-PU, SSCP-LU, or LU-LU) and the local address of the peripheral logical unit (LU) or physical unit (PU).

local SNA major node. In VTAM, a major node whose minor nodes are channel-attached peripheral nodes.

logic error. In VTAM, an error condition that results from an invalid request; a program logic error.

logical channel. The path that data travels between the origin data terminal equipment (DTE) and an X.25 network, or between the network and the destination DTE. One physical circuit may have many logical channels assigned to it.

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. See also *network addressable unit (NAU), peripheral LU, physical unit (PU), system services control point (SSCP), primary logical unit (PLU),* and *secondary logical unit (SLU).* Contrast with *physical unit (PU).*

logical unit (LU) services. In SNA, capabilities in a logical unit to: (1) receive requests from an end user and, in turn, issue requests to the system services control point (SSCP) in order to perform the requested functions, typically for session initiation; (2) receive

requests from the SSCP, for example to activate LU-LU sessions via Bind Session requests; and (3) provide session presentation and other services for LU-LU sessions. See also *physical unit (PU) services*.

log off. To request that a session be terminated.

logoff. In VTAM, an unformatted session termination request.

log on. (1) To initiate a session. (2) In SNA, to initiate a session between an application program and a logical unit (LU).

logon. In VTAM, an unformatted session initiation request for a session between two logical units. See *automatic logon* and *simulated logon*. See also *session-initiation request*.

logon data. In VTAM: (1) The user data portion of a field-formatted or unformatted session-initiation request. (2) The entire logon sequence or message from a logical unit (LU). Synonymous with *logon message*.

logon message. Synonym for *logon data*.

logon mode. In VTAM, a subset of session parameters specified in a logon mode table for communication with a logical unit. See also *session parameters*.

logon mode table. In VTAM, a set of entries for one or more logon modes. Each logon mode is identified by a logon mode name.

logon-interpret routine. In VTAM, an installation exit routine, associated with an interpret table entry, that translates logon information. It may also verify the logon.

loop adapter. A feature of the IBM 4300 Processor family that allows the attachment of a variety of SNA and non-SNA devices. To VTAM, these devices appear as channel-attached type 2 physical units (PUs).

LPDA. Link Problem Determination Aid.

LS. Link status.

LSID. Local session identification.

LU. Logical unit.

LU connection test. In SNA products, a diagnostic aid that permits a terminal operator to check whether the path between a system services control point (SSCP) and a logical unit (LU) is operational.

LU type. A deprecated term for *LU-LU session type*.

LU-LU session. In SNA, a session between two logical units (LUs) in an SNA network. It provides communication between two end users, or between an end user and an LU services component.

LU-LU session type. In SNA, the classification of an LU-LU session in terms of the specific subset of SNA protocols and options supported by the logical units (LUs) for that session, namely:

The mandatory and optional values allowed in the session activation request.

The usage of data stream controls, FM headers, request unit (RU) parameters, and sense codes.

Presentation services protocols such as those associated with FM header usage.

LU-LU session types 0, 1, 2, 3, 4, 6, and 7 are defined.

machine check handler (MCH). A feature that analyzes errors and attempts recovery by retrying the failing instruction, if possible. If retry is unsuccessful, it attempts to correct the malfunction or to isolate the affected task.

macro instruction. (1) * (ISO) An instruction in a source language that is to be replaced by a defined sequence of instructions in the same source language. The macro instruction may also specify values for parameters in the instructions that are to replace it. (2) In assembler programming, an assembler language statement that causes the assembler to process a predefined set of statements called a macro definition. The statements normally produced from the macro definition replace the macro instruction in the program. See also *definition statement*.

main network address. In VTAM, the logical unit (LU) network address used for the SSCP-LU session and certain LU-LU sessions with the LU. Contrast with *auxiliary network address*.

mainline program. In VTAM, that part of the application program that issues OPEN and CLOSE macro instructions.

maintain system history program (MSHP). A program that facilitates the process of installing and servicing a VSE system.

maintenance and operator subsystem (MOSS). A subsystem of the 3725 Communication Controller that contains a processor and operates independently of the rest of the controller. It loads and supervises the 3725, runs problem determination procedures, and assists in maintaining both hardware and software.

maintenance services. In SNA, one of the types of network services in system services control points (SSCPs) and physical units (PUs). Maintenance services provide facilities for testing links and nodes

and for collecting and recording error information. See also *configuration services, management services, network services*, and *session services*.

major node. In VTAM, a set of resources that can be activated and deactivated as a group. See *node* and *minor node*.

management services. In SNA, one of the types of network services in system services control points (SSCPs) and logical units (LUs). Management services forward requests for network data, such as error statistics, and deliver the data in reply. See also *configuration services, maintenance services, network services*, and *session services*.

mandatory cryptographic session. Synonym for *required cryptographic session*.

mapper. A NetView function that records errors from resources attached to a communication controller or from certain channel-attached devices.

master cryptography key. In SNA, a cryptographic key used to encipher operational keys that will be used at a node.

maximum SSCP rerouting count. The maximum number of times a session initiation request will be rerouted to intermediate system services control points (SSCPs) before the request reaches the destination SSCP. This count is used to prevent endless rerouting of session initiation requests.

MCH. Machine check handler.

MDR. Miscellaneous data record.

MERGE disk. The virtual disk in the VM operating system that contains program temporary fixes (PTFs) after the VMFMERGE EXEC is invoked. See *BASE disk, DELTA disk, RUN disk*, and *ZAP disk*.

message. In VTAM, the amount of FM data transferred to VTAM by the application program with one SEND request.

message unit. In SNA, the unit of data processed by any layer; for example, a basic information unit (BIU), a path information unit (PIU), or a request/response unit (RU).

MIC. Middle-in-chain.

middle-in-chain (MIC). A request unit (RU) whose request header (RH) begin chain indicator and RH end chain indicator are both off. See also *RU chain*.

migration. Installing a new version or release of a program when an earlier version or release is already in place.

minidisk. Synonym for *virtual disk*.

minor node. In VTAM, a uniquely-defined resource within a major node. See *node* and *major node*.

miscellaneous data record (MDR). A record of a network hardware error recorded by the NCP and sent to the VTAM host that owns the failing component. Then VTAM writes the error on the operating system error data set.

modem. A device that modulates and demodulates signals transmitted over data communication facilities. The term is a contraction for modulator-demodulator.

modulo level. The maximum number of path information units (PIUs) a device can send before stopping to wait for a response.

MOSS. Maintenance and operator subsystem.

MSHP. Maintain system history program.

MSNF. Multisystem Networking Facility.

multi-leaving. A variation of BSC communication that lets several devices communicate concurrently over a link without using station addresses.

multiple-domain network. In SNA, a network with more than one system services control point (SSCP). Contrast with *single-domain network*.

multiple gateways. More than one gateway serving to connect the same two SNA networks for cross-network sessions.

Multiple Virtual Storage (MVS). An IBM program product whose full name is the Operating System/Virtual Storage (OS/VS) with Multiple Virtual Storage/System Product for System/370. It is a software operating system controlling the execution of programs.

Multiple Virtual Storage for Extended Architecture (MVS/XA). An IBM program product whose full name is the Operating System/Virtual Storage (OS/VS) with Multiple Virtual Storage/System Product for Extended Architecture. Extended architecture allows 31-bit storage addressing. MVS/XA is a software operating system controlling the execution of programs.

Multiple Virtual Storage/Operator Communication Control Facility (MVS/OCCF). A facility that intercepts messages from the MVS supervisor. NetView and MVS/OCCF help a network operator control multiple MVS systems from a central site.

multipoint link. A link or circuit interconnecting several link stations. Synonymous with *multidrop line*. Contrast with *point-to-point link*.

Multisystem Networking Facility (MSNF). An optional feature of TCAM and VTAM Version 1 that permits these access methods, together with NCP, to control a multiple-domain network.

multi-tailed. When a communication controller with an NCP is attached to more than one host processor. See *twin-tailed*. See also *fanout* and *tailing*.

multi-thread application program. A VTAM application program that processes requests for more than one session concurrently. Contrast with *single-thread application program*.

MVS. Multiple Virtual Storage operating system.

MVS/OCCF. Multiple Virtual Storage/Operator Communication Control Facility.

MVS/XA. Multiple Virtual Storage for Extended Architecture operating system.

name translation. In SNA network interconnection, converting logical unit names, logon mode table names, and class of service names used in one network into equivalent names to be used in another network. This function can be provided through NetView and invoked by a gateway system services control point (SSCP) when necessary. See also *alias name*.

native mode. In VTAM, a mode in which VTAM runs directly on the VM operating system rather than on a guest operating system.

native network. The network in which a gateway NCP's resources reside.

NAU. Network addressable unit.

NC. Network control.

NCCF. Network Communications Control Facility.

NCP. (1) Network Control Program (IBM program product). Its full name is Advanced Communications Function for the Network Control Program. (2) Network control program (general term).

NCP/EP definition facility (NDF). A program that is part of System Support Programs (SSP) and is used to generate a partitioned emulation programming (PEP) load module or a load module for a Network Control Program (NCP) or for an Emulation Program (EP).

NCP major node. In VTAM, a set of minor nodes representing resources, such as lines and peripheral nodes, controlled by a network control program. See *major node*.

NCP Subset. Advanced Communications Function for Network Control Program (NCP) V4 Subset. An IBM licensed program that is a subset of NCP. It operates only on IBM 3720 Communication Controllers with certain capacity limitations such as number of scanners, lines, and channel adapters supported.

NCP/Token-Ring interconnection (NTRI). An NCP function that allows a communication controller to attach to the IBM Token-Ring Network by providing a basic boundary network node interface.

NDF. NCP/EP definition facility.

negative polling limit. For a start-stop or BSC terminal, the maximum number of consecutive negative responses to polling that the communication controller accepts before suspending polling operations.

negative response. In SNA, a response indicating that a request did not arrive successfully or was not processed successfully by the receiver. Contrast with *positive response*. See *exception response*.

negotiable BIND. In SNA, a capability that allows two LU-LU half-sessions to negotiate the parameters of a session when the session is being activated.

negotiation. The process of deciding what packet size to transmit between a network and a 3710.

NetView. An IBM program product used to monitor a network, manage it, and diagnose its problems.

NetView-NetView task (NNT). The task under which a cross-domain NetView session runs.

network. (1) (TC97) An interconnected group of nodes. (2) In data processing, a user application network. See *path control network, public network, SNA network*, and *user application network*.

network address. In SNA, an address, consisting of subarea and element fields, that identifies a link, a link station, or a network addressable unit. Subarea nodes use network addresses; peripheral nodes use local addresses. The boundary function in the subarea node to which a peripheral node is attached transforms local addresses to network addresses and vice versa. See *local address*. See also *network name*.

network address translation. In SNA network interconnection, conversion of the network address assigned to a logical unit in one network into an address in an adjacent network. This function is provided by the gateway NCP that joins the two networks. See also *alias network address* and *real network address*.

network addressable unit (NAU). In SNA, a logical unit, a physical unit, or a system services control point. It is the origin or the destination of information transmitted by the path control network. Each NAU has a network address that represents it to the path control network. See also *network name*, *network address*, and *path control network*.

Network Communications Control Facility (NCCF). (1) An IBM program product that is a base for command processors that can monitor, control, and improve the operations of a network. Its function is included and enhanced in NetView's command facility. (2) A traditional, alternative name for the command facility of NetView.

network configuration tables. The tables through which the system services control point (SSCP) interprets the network configuration.

network control (NC). In SNA, an RU category used for requests and responses exchanged between physical units (PUs) for such purposes as activating and deactivating explicit and virtual routes and sending load modules to adjacent peripheral nodes. See also *data flow control layer* and *session control*.

network control mode. The functions of a network control program that enable it to direct a communication controller to perform activities such as polling, device addressing, dialing, and answering. Contrast with *emulation mode*.

Network Control Program (NCP). An IBM program product that provides communication controller support for single-domain, multiple-domain, and interconnected network capability. Its full name is Advanced Communications Function for the Network Control Program.

network control program. A program, generated by the user from a library of IBM-supplied modules, that controls the operation of a communication controller.

network control program generation. The process, performed in a host system, of validating, assembling, and link-editing network definition statements to produce a network control program.

network controller. A concentrator and protocol converter used with SDLC links. By converting protocols, which manage the way data is sent and received, the IBM 3710 Network Controller allows the use of non-SNA devices with an SNA host processor.

network identifier (network ID). The network name defined to NCPs and hosts to indicate the name of the network in which they reside. It is unique across all communicating SNA networks.

networking. In a multiple-domain network, communication among domains.

network log. A file that contains all messages processed by NetView.

Network Logical Data Manager (NLDM). (1) An IBM program product that collects and correlates session-related data and provides online access to this information. It runs as an NCCF communication network management (CNM) application program. Its function is included and enhanced in NetView's session monitor. (2) A traditional, alternative name for the session monitor of NetView.

Network Management Vector Transport (NMVT). A record that contains solicited or unsolicited data about alerts, line statistics, and error records and that is issued by certain SNA resources to the host system. It can also be used to send requests on Link Problem Determination Aid (LPDA) lines for certain actions such as configuration changes.

network manager. A program or group of programs that is used to monitor, manage, and diagnose the problems of a network.

network name. (1) In SNA, the symbolic identifier by which end users refer to a network addressable unit (NAU), a link, or a link station. See also *network address*. (2) In a multiple-domain network, the name of the APPL statement defining a VTAM application program is its network name and it must be unique across domains. Contrast with *ACB name*. See *uninterpreted name*.

network node. Synonym for *node*.

network operator. (1) A person or program responsible for controlling the operation of all or part of a network. (2) The person or program that controls all the domains in a multiple-domain network. Contrast with *domain operator*.

network operator console. A terminal in the network from which an operator controls the network.

network performance analyzer (NPA). An option of NCP that collects performance data about devices. The data is recorded by NPM.

Network Performance Monitor (NPM). An IBM program product that uses VTAM to record performance data collected for various devices in a network.

Network Problem Determination Application (NPDA). (1) An IBM program product that helps identify network hardware problems from a central control point using interactive display techniques. It runs as an

NCCF communication network management (CNM) application program. Its function is included and enhanced in NetView's hardware monitor. (2) A traditional, alternative name for the hardware monitor of NetView.

network product support (NPS). The function of NetView that provides operations control for the IBM 3710 Network Controller and the NCP. NPS provides operator commands to run diagnostics for link problem determination and to change product operating parameters.

Network Routing Facility (NRF). An IBM program product that resides in the NCP, which provides a path for messages between terminals, and routes messages over this path without going through the host processor.

network services (NS). In SNA, the services within network addressable units (NAUs) that control network operation through SSCP-SSCP, SSCP-PU, and SSCP-LU sessions. See *configuration services, maintenance services, management services*, and *session services*.

network services (NS) header. In SNA, a 3-byte field in an FMD request/response unit (RU) flowing in an SSCP-LU, SSCP-PU, or SSCP-SSCP session. The network services header is used primarily to identify the network services category of the request unit (RU) (for example, configuration services, session services) and the particular request code within a category.

Network Services Procedure Error (NSPE). A request unit that is sent by a system services control point (SSCP) to a logical unit (LU) when a procedure requested by that LU has failed.

Network Terminal Option (NTO). An IBM program product that allows certain non-SNA devices to participate in sessions with SNA application programs in the host processor. NTO converts non-SNA protocol to SNA protocol when data is sent to the host from a non-SNA device and reconverts SNA protocol to non-SNA protocol when data is sent back to the device.

NIB. Node initialization block.

NIB list. A series of contiguous node initialization blocks.

NLDM. Network Logical Data Manager.

NMVT. Network Management Vector Transport.

NNT. NetView-NetView task.

node. (1) In SNA, an endpoint of a link or junction common to two or more links in a network. Nodes can be distributed to host processors, communication controllers, cluster controllers, or terminals. Nodes can vary in routing and other functional capabilities. (2) In VTAM, a point in a network defined by a symbolic name. Synonymous with *network node*. See *major node* and *minor node*.

node initialization block (NIB). In VTAM, a control block associated with a particular node or session that contains information used by the application program to identify the node or session and to indicate how communication requests on a session are to be handled by VTAM.

node name. In VTAM, the symbolic name assigned to a specific major or minor node during network definition.

node type. In SNA, a designation of a node according to the protocols it supports and the network addressable units (NAUs) that it can contain. Four types are defined: 1, 2, 4, and 5. Type 1 and type 2 nodes are also referred to as peripheral nodes and type 4 and type 5 nodes are also referred to as subarea nodes. See also *physical unit type*.

non-native network. Any network attached to a gateway NCP that does not contain that NCP's resources.

Non-SNA Interconnection (NSI). An IBM program product that provides format identification (FID1/4) support for selected non-SNA facilities. Thus, it allows SNA and non-SNA facilities to share SDLC links. It also allows the remote concentration of selected non-SNA devices along with SNA devices.

nonswitched data link. A connection between a link-attached device and a communication controller that does not have to be established by dialing. Contrast with *switched data link*. See also *point-to-point data link* and *multipoint data link*.

nonswitched line. A telecommunication line on which connections do not have to be established by dialing. Contrast with *switched line*.

no response (NR). In SNA, a value in the form-of-response-requested field of the request header (RH) indicating that no response is to be returned to the request, whether or not the request is received and processed successfully. Contrast with *definite response* and *exception response*.

normal flow. In SNA, a data flow designated in the transmission header (TH) that is used primarily to carry end-user data. The rate at which requests flow on the normal flow can be regulated by session-level pacing. Normal and expedited flows move in both the primary-to-secondary and secondary-to-primary directions. Contrast with *expedited flow*.

notify. A network services request that is sent by an SSCP to a logical unit (LU) to inform the LU of the status of a procedure requested by the LU.

NPDA. Network Problem Determination Application.

NPM. Network Performance Monitor.

NPS. Network product support.

NPSI. X.25 NCP Packet Switching Interface.

NR. No response.

NRF. Network Routing Facility.

NS. Network services.

NSI. Non-SNA Interconnection.

NSPE. Network Services Procedure Error.

NTO. Network Terminal Option.

NTRI. NCP/Token-Ring interconnection.

OAF. Origin address field.

OBR. Outboard record.

OCCF. Operator Communication Control Facility.

OIC. Only-in-chain.

OLU. Origin logical unit.

online. Stored in a computer and accessible from a terminal.

only-in-chain (OIC). A request unit for which the request header (RH) begin chain indicator and RH end chain indicator are both on. See also *RU chain.*

operator. A person who operates a machine. See *network operator.*

Operator Communication Control Facility (OCCF). A program product that allows communication with and the operation of remote MVS or VSE systems.

operator profile. In NetView, the resources and activities a network operator has control over. The statements defining these resources and activities are stored in a file that is activated when the operator logs on.

operator station task (OST). The NetView task that establishes and maintains the online session with the network operator. There is one operator station task for each network operator who logs on to NetView.

orderly closedown. The orderly deactivation of VTAM and its domain. An orderly closedown does not complete until all application programs have closed their ACBs. Until then, RPL-based operations continue; however, no new sessions can be established and no new ACBs can be opened. Contrast with *cancel closedown* and *quick closedown.*

origin address field (OAF). In SNA, a field in a FID0 or FID1 transmission header that contains the address of the originating network addressable unit (NAU). Contrast with *destination address field.* See also *format identification (FID) field* and *local session identification (LSID).*

origin logical unit (OLU). The logical unit from which data is sent. Contrast with *destination logical unit (DLU).*

origin subarea field (OSAF). In SNA, a subarea field in a FID4 transmission header that contains a subarea address, which combined with the element address in the origin element field, gives the complete network address of the originating network addressable unit (NAU). Contrast with *destination subarea field.*

OSAF. Origin subarea field (OSAF).

OST. Operator station task.

outboard record. A record originated by I/O and communication components and supported by the access methods. It describes permanent errors or reports statistical data.

PAB. Process anchor block.

pacing. In SNA, a technique by which a receiving component controls the rate of transmission of a sending component to prevent overrun or congestion. See *session-level pacing, send pacing,* and *virtual route (VR) pacing.* See also *flow control.*

pacing group. In SNA, (1) The path information units (PIUs) that can be transmitted on a virtual route before a virtual-route pacing response is received, indicating that the virtual route receiver is ready to receive more PIUs on the route. Synonymous with *window.* (2) The requests that can be transmitted on the normal flow in one direction on a session before a session-level pacing response is received, indicating that the receiver is ready to accept the next group of requests.

pacing group size. In SNA, (1) The number of path information units (PIUs) in a virtual route pacing group. The pacing group size varies according to traffic congestion along the virtual route. Synonymous with *window size.* (2) The number of requests in a session-level pacing group.

pacing response. In SNA, an indicator that signifies a receiving component's readiness to accept another pacing group; the indicator is carried in a response header (RH) for session-level pacing, and in a transmission header (TH) for virtual route pacing.

packet switching. (TC97) The process of routing and transferring data by means of addressed packets so that a channel is occupied only during the transmission of a packet; upon completion of the transmission, the channel is made available for the transfer of other packets.

page. (1) The portion of a panel that is shown on a display surface at one time. (2) To move back and forth among the pages of a multiple-page panel. See also *scroll.* (3) (ISO) In a virtual storage system, a fixed-length block that has a virtual address and that can be transferred between real storage and auxiliary storage. (4) To transfer instructions, data, or both between real storage and external page or auxiliary storage.

panel. (1) A formatted display of information that appears on a terminal screen. See also *help panel* and *task panel.* Contrast with *screen.* (2) In computer graphics, a display image that defines the locations and characteristics of display fields on a display surface.

parallel links. In SNA, two or more links between adjacent subarea nodes.

parallel sessions. In SNA, two or more concurrently active sessions between the same two logical units (LUs) using different pairs of network addresses. Each session can have independent session parameters.

partitioned emulation programming (PEP) extension. A function of a network control program that enables a communication controller to operate some telecommunication lines in network control mode while simultaneously operating others in emulation mode.

path. (1) In SNA, the series of path control network components (path control and data link control) that are traversed by the information exchanged between two network addressable units (NAUs). A path consists of a virtual route and its route extension, if any. See also *explicit route.* (2) In defining a switched major node, a potential dial-out port that can be used to reach a physical unit.

path control (PC) layer. In SNA, the layer that manages the sharing of link resources of the SNA network and routes basic information units (BIUs) through it. Path control routes message units between network addressable units (NAUs) in the network and provides the paths between them. It converts the BIUs from transmission control (possibly segmenting them) into path information units (PIUs) and exchanges basic transmission units (BTUs) and one or more PIUs with data link control. See also *BIU segment, blocking of PIUs, data link control layer,* and *transmission control layer.*

path control (PC) network. In SNA, the part of the SNA network that includes the data link control and path control layers. See *SNA network* and *user application network.* See also *boundary function.*

path information unit (PIU). In SNA, a message unit consisting of a transmission header (TH) alone, or of a TH followed by a basic information unit (BIU) or a BIU segment. See also *transmission header.*

path test. A test provided by NetView that enables a network operator to determine whether a path is available between two LUs that are currently in session.

PC. Path control.

pending active session. In VTAM, the state of an LU-LU session recorded by the system services control point (SSCP) when it finds both logical units (LUs) available and has sent a CINIT request to the primary logical unit (PLU) of the requested session.

PEP. Partitioned emulation programming.

performance class. In NetView, a description of an objective or commitment of performance. It consists of a performance class name, boundary definitions, response time definition, response time ranges, and response time percentage objectives. Sessions may be assigned performance classes.

performance error. Synonym for *temporary error.*

peripheral LU. In SNA, a logical unit representing a peripheral node.

peripheral node. In SNA, a node that uses local addresses for routing and therefore is not affected by changes in network addresses. A peripheral node requires boundary function assistance from an adjacent subarea node. A peripheral node is a type 1 or type 2 node connected to a subarea node.

peripheral PU. In SNA, a physical unit representing a peripheral node.

permanent error. A resource error that cannot be resolved by error recovery programs. Contrast with *temporary error.*

physical connection. In VTAM, a point-to-point connection or multipoint connection.

physical unit (PU). In SNA, one of three types of network addressable units (NAUs). Each node of an SNA network contains a physical unit (PU) that manages and monitors the resources (such as attached links) of a node, as requested by a system services control point (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. See also *peripheral PU, physical unit (PU) type,* and *subarea PU.*

physical unit (PU) services. In SNA, the components within a physical unit (PU) that provide configuration services and maintenance services for SSCP-PU sessions. See also *logical unit (LU) services.*

physical unit (PU) type. In SNA, the classification of a physical unit (PU) according to the type of node in which it resides. The PU type is the same as its node type; that is, a type 1 PU resides in a type 1 node, and so forth.

PIU. Path information unit.

plaintext. Synonym for *clear data.*

PLU. Primary logical unit.

PMX. Programmable operator message exchange.

POI. Programmed operator interface.

point-to-point link. A link that connects a single remote link station to a node; it may be either switched or nonswitched. Contrast with *multipoint link.*

polling. (1) * Interrogation of devices for purposes such as to avoid contention, to determine operational status, or to determine readiness to send or receive data. (2) (TC97) The process whereby stations are invited, one at a time, to transmit.

positive response. A response indicating that a request was received and processed. Contrast with *negative response.*

PPT. Primary POI task.

presentation services command processor (PSCP). In NetView, a facility that processes requests from a user terminal and formats displays to be presented at the user terminal.

primary application program. In VTAM, an application program acting as the primary end of an LU-LU session.

primary data base. The main data base provided to the NetView user for recording error data. See *secondary data base.*

primary end of a session. The end of a session that uses primary protocols. The primary end establishes the session. For an LU-LU session, the primary end of the session is the primary logical unit. Contrast with *secondary end of a session.* See *half-session.*

primary half-session. In SNA, the half-session that sends the session activation request. See also *primary logical unit.* Contrast with *secondary half-session.*

primary logical unit (PLU). In SNA, the logical unit (LU) that contains the primary half-session for a particular LU-LU session. Each session must have a PLU and secondary logical unit (SLU). The PLU is the unit responsible for the bind and is the controlling LU for the session. A particular LU may contain both primary and secondary half-sessions for different active LU-LU sessions. Contrast with *secondary logical unit (SLU).*

primary path. (1) The channel an operation first uses. (2) In CCP, one of two paths defined for information flow to and from the physical units attached to the network by means of an IBM 3710 Network Controller. The primary path is the path that is normally used. See *alternate path.*

primary POI task (PPT). The NetView subtask that processes all unsolicited messages received from the VTAM program operator interface (POI) and delivers them to the controlling operator or to the command processor. The PPT also processes the initial command specified to execute when NetView is initialized and timer request commands scheduled to execute under the PPT.

primary session. An extended recovery facility (XRF) session between the active application subsystem and a terminal user.

problem determination. The process of identifying the source of a problem; for example, a program component, a machine failure, telecommunication facilities, user or contractor-installed programs or equipment, an environment failure such as a power loss, or a user error.

process anchor block (PAB). In VTAM, a process scheduling services dispatch point.

profile. In the Conversational Monitor System (CMS) or the group control system (GCS), the characteristics defined by a PROFILE EXEC file that executes automatically after the system is loaded into a virtual machine. See also *operator profile.*

programmed operator. A VTAM application program that is authorized to issue VTAM operator commands and receive VTAM operator awareness messages. See also *solicited messages* and *unsolicited messages.*

programmed operator interface (POI). A VTAM function that allows programs to perform VTAM operator functions.

programmable operator facility (PROP). A VM facility that allows remote control of a virtual machine by intercepting messages directed for that machine and taking preprogrammed action.

programmable operator message exchange (PMX). The interface that gives the NetView operator the ability to communicate with the programmable operator facility.

program temporary fix (PTF). A temporary solution or bypass of a problem diagnosed by IBM in a current unaltered release of the program.

PROP. Programmable operator facility.

protection key. An indicator that appears in the current program status word whenever an associated task has control of the system. This indicator must match the storage keys of all main storage locks that the task is to use.

protocol. (1) (CCITT/ITU) A specification for the format and relative timing of information exchanged between communicating parties. (2) (TC97) The set of rules governing the operation of functional units of a communication system that must be followed if communication is to be achieved. (3) In SNA, the meanings of, and the sequencing rules for, requests and responses used for managing the network, transferring data, and synchronizing the states of network components. See also *bracket protocol.* Synonymous with *line control discipline* and *line discipline.* See also *link protocol.*

PSCP. Presentation services command processor.

PTF. Program temporary fix.

PU. Physical unit.

PU type. Physical unit type.

public network. A network established and operated by communication common carriers or telecommunication Administrations for the specific purpose of providing circuit-switched, packet-switched, and leased-circuit services to the public. Contrast with *user-application network.*

PU-PU flow. In SNA, the exchange between physical units (PUs) of network control requests and responses.

queued BIND. In VTAM, a BIND sent from the primary logical unit (PLU) to the secondary logical unit (SLU) that has not yet been responded to by the SLU.

queued CINIT. In VTAM, a CINIT sent from a system services control point (SSCP) to a logical unit (LU) that has not yet been responded to by the LU.

queued session. In VTAM, pertaining to a requested LU-LU session that cannot be started because one of the logical units (LUs) is not available. If the session-initiation request specified queuing, the system services control points (SSCPs) will record the request and later continue with the session-establishment procedure when both LUs become available.

quick closedown. In VTAM, a closedown in which any RPL-based communication macro instruction is terminated (posted complete with an error code) and no new sessions can be established and no new ACBs can be opened. See also *cancel closedown* and *orderly closedown.*

quiesce protocol. In VTAM, a method of communicating in one direction at a time. Either the primary logical unit (PLU) or the secondary logical unit (SLU) assumes the exclusive right to send normal-flow requests, and the other node refrains from sending such requests. When the sender wants to receive, it releases the other node from its quiesced state.

RACF. Resource Access Control Facility.

RDT. Resource definition table.

real name. The name by which a logical unit (LU), logon mode table, or class of service (COS) table is known within the SNA network in which it resides.

real network address. The address by which a logical unit (LU) is known within the SNA network in which it resides.

receive pacing. In SNA, the pacing of message units that the component is receiving. See also *send pacing.*

RECFMS. Record formatted maintenance statistics.

RECMS. Record maintenance statistics.

Recommendation X.21 (Geneva 1980). A Consultative Committee on International Telegraph and Telephone (CCITT) recommendation for a general purpose interface between data terminal equipment and data circuit equipment for synchronous operations on a public data network.

Recommendation X.25 (Geneva 1980). A Consultative Committee on International Telegraph and Telephone (CCITT) recommendation for the interface between data terminal equipment and packet-switched data networks. See also *packet switching.*

recommended action. Procedures suggested by NetView that can be used to determine the causes of network problems.

record formatted maintenance statistics (RECFMS). In NetView, a statistical record built by an SNA controller and usually solicited by the host.

recording filter. In NetView, the function that determines which events, statistics, and alerts are stored on a data base.

record maintenance statistics (RECMS). In NetView, an SNA error event record built from an NCP or line error and sent unsolicited to the host.

reentrant. The attribute of a program or routine that allows the same copy of the program or routine to be used concurrently by two or more tasks.

regular command. In NetView, any VTAM or NetView command that is not an immediate command and is processed by a regular command processor. Contrast with *immediate command.*

release. For VTAM to relinquish control of resources (communication controllers or physical units). See also *resource takeover.* Contrast with *acquire (2).*

remote. Synonym for *link-attached.*

remote modem self-test (RST). A check on hardware to identify a field-replaceable unit that is failing.

remote spooling communications subsystem (RSCS). A VM networking component that provides telecommunication facilities for the transmission of bulk files between VM users and remote stations.

REQMS. Request for maintenance statistics.

request for maintenance statistics (REQMS). A host solicitation to an SNA controller for a statistical data record.

request header (RH). In SNA, control information preceding a request unit (RU). See also *request/response header (RH).*

request parameter list (RPL). In VTAM, a control block that contains the parameters necessary for processing a request for data transfer, for establishing or terminating a session, or for some other operation.

request unit (RU). In SNA, a message unit that contains control information such as a request code or FM headers, end-user data, or both.

request/response header (RH). In SNA, control information, preceding a request/response unit (RU), that specifies the type of RU (request unit or response unit) and contains control information associated with that RU.

request/response unit (RU). In SNA, a generic term for a request unit or a response unit. See also *request unit (RU)* and *response unit.*

required cryptographic session. A cryptographic session in which all outbound data is enciphered and all inbound data is deciphered. Synonymous with *mandatory cryptographic session.* Contrast with *selective cryptographic session* and *clear session.*

resource. (1) Any facility of the computing system or operating system required by a job or task, and including main storage, input/output devices, the processing unit, data sets, and control or processing programs. (2) In NetView, any hardware or software that provides function to the network.

Resource Access Control Facility (RACF). A program product that provides for access control by identifying and verifying users to the system, authorizing access to DASD data sets, logging detected unauthorized attempts to enter the system, and logging detected accesses to protected data sets.

resource definition table (RDT). In VTAM, a table that describes the characteristics of each node available to VTAM and associates each node with a network address. This is the main VTAM network configuration table.

resource hierarchy. In VTAM, the relationship among network resources in which some resources are subordinate to others as a result of their position in the network structure and architecture; for example, the logical units (LUs) of a peripheral physical unit (PU) are subordinate to that PU, which, in turn, is subordinate to the link attaching it to its subarea node.

resource level. In NetView, the hierarchical position of a device (and the software contained within it) in a data processing system. For example, a first-level resource would be the communication controller, and the second-level resource would be the line connected to it.

resource takeover. In VTAM, action initiated by a network operator to transfer control of resources from one domain to another. See also *acquire (2)* and *release.* See *takeover.*

resource types. In NetView, a concept to describe the organization of panels. Resource types are defined as central processing unit, channel, control unit, and I/O device for one category; and communication controller, adapter, link, cluster controller, and terminal for another category. Resource types are combined with data types and display types to describe display organization. See also *data types* and *display types.*

responded output. In VTAM, a type of output request that is completed when a response is returned. Contrast with *scheduled output.*

response header (RH). In SNA, a header, optionally followed by a response unit (RU), that indicates whether the response is positive or negative and that may contain a pacing response. See also *negative response, pacing response,* and *positive response.*

response time. (1) The amount of time it takes after a user presses the enter key at the terminal until the reply appears at the terminal. (2) For response time monitoring, the time from the activation of a transaction until a response is received, according to the response time definition coded in the performance class.

response time monitor (RTM). A feature available with the 3274 control unit to measure response times, which may be collected and displayed by NetView.

response unit (RU). In SNA, a message unit that acknowledges a request unit; it may contain prefix information received in a request unit. If positive, the response unit may contain additional information (such as session parameters in response to Bind Session), or if negative, contains sense data defining the exception condition.

return code. * A code [returned from a program] used to influence the execution of succeeding instructions.

REX. Route extension.

RH. Request/response header.

ring. A network configuration where a series of attaching devices are connected by unidirectional transmission links to form a closed path.

route. See *explicit route* and *virtual route.*

route extension (REX). In SNA, the path control network components, including a peripheral link, that make up the portion of a path between a subarea node and a network addressable unit (NAU) in an adjacent peripheral node. See also *path, explicit route (ER), virtual route (VR).*

Route Table Generator (RTG). An IBM-supplied field developed program that assists the user in generating path tables for SNA networks.

RPL. Request parameter list.

RPL exit routine. In VTAM, an application program exit routine whose address has been placed in the EXIT field of a request parameter list (RPL). VTAM invokes the routine to indicate that an asynchronous request has been completed. See *EXLST exit routine.*

RPL-based macro instruction. In VTAM, a macro instruction whose parameters are specified by the user in a request parameter list.

RSCS. Remote spooling communications subsystem.

RST. Remote modem self-test.

RTG. Route Table Generator.

RTM. Response time monitor.

RU. Request/response unit.

RU chain. In SNA, a set of related request/response units (RUs) that are consecutively transmitted on a particular normal or expedited data flow. The request RU chain is the unit of recovery: if one of the RUs in the chain cannot be processed, the entire chain is discarded. Each RU belongs to only one chain, which has a beginning and an end indicated via control bits in request/response headers within the RU chain. Each RU can be designated as first-in-chain (FIC), last-in-chain (LIC), middle-in-chain (MIC), or only-in-chain (OIC). Response units and expedited-flow request units are always sent as only-in-chain.

RUN disk. The virtual disk that contains the VTAM and VM SNA console support (VSCS) load libraries, program temporary fixes (PTFs) and user-written modifications from the ZAP disk. See *BASE disk, DELTA disk, MERGE disk,* and *ZAP disk.*

same-domain LU-LU session. In SNA, an LU-LU session between logical units (LUs) in the same domain. Contrast with *cross-domain LU-LU session.*

SA. Subarea.

SAW data. Synonym for *session awareness (SAW) data.*

SC. Session control.

scanner interface trace (SIT). A record of the activity within the communication scanner processor (CSP) for a specified data link between a 3725 Communication Controller and a resource.

scheduled output. In VTAM, a type of output request that is completed, as far as the application program is concerned, when the program's output data area is free. Contrast with *responded output.*

SCIF. Single console image facility.

SCIP exit. Session control in-bound processing exit.

scope of commands. In NetView, the facility that provides the ability to assign different responsibilities to various operators.

screen. An illuminated display surface; for example, the display surface of a CRT or plasma panel. Contrast with *panel.*

scroll. To move all or part of the display image vertically to display data that cannot be observed within a single display image. See also *page (2).*

SCS. SNA character string.

SDLC. Synchronous Data Link Control.

secondary application program. An application program acting as the secondary end of an LU-LU session.

secondary data base. One of two data bases provided by NetView for recording data. It provides backup or a temporary storage alternative to the primary data base. See *primary data base.*

secondary end of a session. That end of a session that uses secondary protocols. For an LU-LU session, the secondary end of the session is the secondary logical unit (SLU). Contrast with *primary end of a session.* See also *secondary logical unit (SLU)* and *half-session.*

secondary half-session. In SNA, the half-session that receives the session-activation request. See also *secondary logical unit (SLU).* Contrast with *primary half-session.*

secondary logical unit (SLU). In SNA, the logical unit (LU) that contains the secondary half-session for a particular LU-LU session. An LU may contain secondary and primary half-sessions for different active LU-LU sessions. Contrast with *primary logical unit (PLU).*

secondary logical unit (SLU) key. A key-encrypting key used to protect a session cryptography key during its transmission to the secondary half-session.

segmenting of BIUs. In SNA, an optional function of path control that divides a basic information unit (BIU) received from transmission control into two or more path information units (PIUs). The first PIU contains the request header (RH) of the BIU and usually part of the RU; the remaining PIU or PIUs contain the remaining parts of the RU. When segmenting is not done, a PIU contains a complete BIU.

selective cryptographic session. A cryptographic session in which an application program is allowed to specify the request units to be enciphered. Contrast with *required cryptographic session* and *clear session.*

send pacing. In SNA, pacing of message units that a component is sending. See also *receive pacing.*

serial networks. A group of SNA networks connected in series by gateways.

Service Level Reporter (SLR). A program product that generates management reports from data sets such as System Management Facility (SMF) files.

session. In SNA, a logical connection between two network addressable units (NAUs) that can be activated, tailored to provide various protocols, and deactivated, as requested. Each session is uniquely identified in a transmission header (TH) by a pair of network addresses, identifying the origin and destination NAUs of any transmissions exchanged during the session. See *half-session, LU-LU session, SSCP-LU session, SSCP-PU session,* and *SSCP-SSCP session.* See also *LU-LU session type* and *PU-PU flow.*

session activation request. In SNA, a request that activates a session between two network addressable units (NAUs) and specifies session parameters that control various protocols during session activity; for example, BIND and ACTPU. Synonymous with *generic BIND.* Contrast with *session deactivation request.*

session address space. In VTAM, an ACB address space or an associated address space in which an OPNDST or OPNSEC macro instruction is issued to establish a session. See also *ACB address space* and *associated address space.*

session awareness (SAW) data. Data collected by NetView about a session that includes the session type, the names of session partners, and information about the session activation status. It is collected for LU-LU, SSCP-LU, SSCP-PU, and SSCP-SSCP sessions and for non-SNA terminals not supported by NTO. It can be displayed in various forms, such as most recent sessions lists.

session control (SC). In SNA, (1) One of the components of transmission control. Session control is used to purge data flowing in a session after an unrecoverable error occurs, to resynchronize the data flow after such an error, and to perform cryptographic verification. (2) A request unit (RU) category used for requests and responses exchanged between the session control components of a session and for session activation and deactivation requests and responses.

session control in-bound processing exit (SCIP). A user exit that receives control when certain request units (RUs) are received by VTAM.

session cryptography key. In SNA, a data encrypting key used to encipher and decipher function management data (FMD) requests transmitted in an LU-LU session that uses cryptography.

session data. Data about a session, collected by NetView, that consists of session awareness data and session trace data.

session deactivation request. In SNA, a request that deactivates a session between two network addressable units (NAUs); for example, UNBIND and DACTPU. Synonymous with *generic unbind.* Contrast with *session activation request.*

session information retrieval (SIR). The function that allows an operator to enable or disable session information retrieval for a particular gateway or for all

gateway sessions. When a gateway session ends, trace information about the most recent sequence or FID0 numbers to cross the gateway is passed back to all system services control points (SSCPs) that have enabled SIR for that session or for all sessions. This information can also be passed back to the requesting host.

session limit. (1) In SNA, the maximum number of concurrently active LU-LU sessions a particular logical unit can support. (2) In the network control program, the maximum number of concurrent line-scheduling sessions on a non-SDLC, multipoint line.

session management exit routine. An installation-supplied VTAM exit routine that performs authorization, accounting, and gateway path selection functions.

session parameters. In SNA, the parameters that specify or constrain the protocols (such as bracket protocol and pacing) for a session between two network addressable units. See also *logon mode*.

session partner. In SNA, one of the two network addressable units (NAUs) having an active session.

session seed. Synonym for *initial chaining value*.

session sequence number. In SNA, a sequentially-incremented identifier that is assigned by data flow control to each request unit on a particular normal flow of a session, typically an LU-LU session, and is checked by transmission control. The identifier is carried in the transmission header (TH) of the path information unit (PIU) and is returned in the TH of any associated response. Contrast with *virtual route sequence number*.

session services. In SNA, one of the types of network services in the system services control point (SSCP) and in the logical unit (LU). These services provide facilities for an LU or a network operator to request that the SSCP initiate or terminate sessions between logical units. See *configuration services* and *maintenance services*.

session trace. In NetView, the function that collects session trace data for sessions involving specified resource types or involving a specific resource.

session trace data. Data relating to sessions that is collected by NetView whenever a session trace is started and that consists of session activation parameters, VTAM path information unit (PIU) data, and NCP data.

session-establishment macro instructions. In VTAM, the set of RPL-based macro instructions used to initiate, establish, or terminate LU-LU sessions.

session-establishment request. In VTAM, a request to an LU to establish a session. For the primary logical unit (PLU) of the requested session, the session-establishment request is the CINIT sent from the system services control point (SSCP) to the PLU. For the secondary logical unit (SLU) of the requested session, the session-establishment request is the BIND sent from the PLU to the SLU.

session information block (SIB). A control block that contains information about a particular SNA session.

session-initiation request. In SNA, an Initiate or logon request from a logical unit (LU) to a system services control point (SSCP) that an LU-LU session be activated.

session-level pacing. In SNA, a flow control technique that permits a receiving connection point manager to control the data transfer rate (the rate at which it receives request units) on the normal flow. It is used to prevent overloading a receiver with unprocessed requests when the sender can generate requests faster than the receiver can process them. See also *pacing* and *virtual route pacing*.

session monitor. The component of NetView that collects and correlates session-related data and provides online access to this information.

session setup failure notification (SSFN). Session awareness data provided by NetView when there is a failure. It identifies the system services control point (SSCP) that detects an error, which SSCPs are involved, and the names of the session partners affected.

session-termination request. In VTAM, a request that an LU-LU session be terminated.

shadow resource. In VTAM, an alternate representation of a network resource that is retained as a definition for possible future use.

share limit. In SNA, the maximum number of control points that can concurrently control a network resource.

shared. Pertaining to the availability of a resource to more than one use at the same time.

shared-control gateway. A gateway consisting of one gateway NCP that is controlled by more than one gateway system services control point (SSCP).

shared session. A feature of a saved system that can be shared by one or more segments of reentrant code in real storage in a virtual machine group.

show cause. The reason code in the RECMS indicating to VTAM or NetView the threshold that was exceeded

and whether or not the threshold has been dynamically altered.

SIB. Session information block.

simple gateway. A gateway consisting of one gateway NCP and one gateway system services control point (SSCP).

simulated logon. A session-initiation request generated when a VTAM application program issues a SIMLOGON macro instruction. The request specifies a logical unit (LU) with which the application program wants a session in which the requesting application program will act as the primary logical unit (PLU).

single console image facility (SCIF). A VM facility that allows multiple consoles to be controlled from a single, virtual machine console.

single-domain network. In SNA, a network with one system services control point (SSCP). Contrast with *multiple-domain network.*

single-thread application program. A VTAM application program that processes requests for multiple sessions one at a time. Such a program usually requests synchronous operations from VTAM, waiting until each operation is completed before proceeding. Contrast with *multithread application program.*

SIR. Session information retrieval.

SIT. Scanner interface trace.

SLR. Service Level Reporter.

SLU. Secondary logical unit.

SMF. System management facility.

SMP. System Modification Program.

SMP/E. System Modification Program Extended.

SNA. Systems Network Architecture.

SNA character string (SCS). A character string composed of EBCDIC controls, optionally intermixed with end-user data, that is carried within a request/response unit.

SNA network. The part of a user-application network that conforms to the formats and protocols of Systems Network Architecture. It enables reliable transfer of data among end users and provides protocols for controlling the resources of various network configurations. The SNA network consists of network addressable units (NAUs), boundary function components, and the path control network.

SNA network interconnection. The connection, by gateways, of two or more independent SNA networks to allow communication between logical units in those networks. The individual SNA networks retain their independence.

SNA terminal. A terminal that supports Systems Network Architecture protocols.

SNBU. Switched network backup.

solicited message. A response from VTAM to a command entered by a program operator. Contrast with *unsolicited message.*

span. In NetView, a user-defined group of network resources within a single domain. Each major or minor node is defined as belonging to one or more spans. See also *span of control.*

span of control. The total network resources over which a particular network operator has control. All the network resources listed in spans associated through profile definition with a particular network operator are within that operator's span of control.

specific-mode. In VTAM: (1) The form of a RECEIVE request that obtains input from one specific session. (2) The form of an accept request that completes the establishment of a session by accepting a specific queued CINIT request. Contrast with *any-mode.* See *continue-specific mode.*

SSCP. System services control point.

SSCP ID. In SNA, a number that uniquely identifies a system services control point (SSCP). The SSCP ID is used in session activation requests sent to physical units (PUs) and other SSCPs.

SSCP rerouting. In SNA network interconnection, the technique used by the gateway system services control point (SSCP) to send session-initiation request units (RUs), by way of a series of SSCP-SSCP sessions, from one SSCP to another, until the owning SSCP is reached.

SSCP-LU session. In SNA, a session between a system services control point (SSCP) and a logical unit (LU); the session enables the LU to request the SSCP to help initiate LU-LU sessions.

SSCP-PU session. In SNA, a session between a system services control point (SSCP) and a physical unit (PU); SSCP-PU sessions allow SSCPs to send requests to and receive status information from individual nodes in order to control the network configuration.

SSCP-SSCP session. In SNA, a session between the system services control point (SSCP) in one domain and the SSCP in another domain. An SSCP-SSCP session is

used to initiate and terminate cross-domain LU-LU sessions.

SSFN. Session setup failure notification.

SSP. System Support Programs (IBM program product). Its full name is Advanced Communications Function for System Support Programs.

ST. Session configuration screen abbreviation.

start option. In VTAM, a user-specified or IBM-supplied option that determines certain conditions that are to exist during the time a VTAM system is operating. Start options can be predefined or specified when VTAM is started.

start-stop transmission. (1) (TC97) Asynchronous transmission such that a group of signals representing a character is preceded by a start element and is followed by a stop element. (2) Asynchronous transmission in which a group of bits is preceded by a start bit that prepares the receiving mechanism for the reception and registration of a character and is followed by at least one stop bit that enables the receiving mechanism to come to an idle condition pending the reception of the next character. See also *binary synchronous transmission* and *synchronous data link control.*

station. (1) One of the input or output points of a network that uses communication facilities; for example, the telephone set in the telephone system or the point where the business machine interfaces with the channel on a leased private line. (2) One or more computers, terminals, or devices at a particular location.

statistic. In NetView, a resource-generated data base record that contains recoverable error counts, traffic, and other significant data about a resource.

status code. In VTAM, information on the status of a resource as shown in a 10-character state code; for example, STATEACTIV for active.

status modifier. In VTAM, a specific character appearing in specific positions of the status code; for example, B in the 10th position indicates a backup.

status monitor. A component of NetView that collects and summarizes information on the status of resources defined in a VTAM domain.

subarea (SA). A portion of the SNA network consisting of a subarea node, any attached peripheral nodes, and their associated resources. Within a subarea node, all network addressable units, links, and adjacent link stations (in attached peripheral or subarea nodes) that are addressable within the subarea share a common subarea address and have distinct element addresses.

subarea address. In SNA, a value in the subarea field of the network address that identifies a particular subarea. See also *element address.*

subarea link. In SNA, a link that connects two subarea nodes.

subarea LU. In SNA, a logical unit in a subarea node. Contrast with *peripheral LU.*

subarea node. In SNA, a node that uses network addresses for routing and whose routing tables are therefore affected by changes in the configuration of the network. Subarea nodes can provide boundary function support for peripheral nodes. Type 4 and type 5 nodes are subarea nodes. See also *intermediate routing node, peripheral node,* and *node type.*

subarea PU. In SNA, a physical unit (PU) in a subarea node.

subarea/element address split. The division of a 16-bit network address into a subarea address and an element address.

subsystem. A secondary or subordinate system, usually capable of operating independent of, or asynchronously with, a controlling system.

subvector. A component of a major vector.

supervisor. The part of a control program that coordinates the use of resources and maintains the flow of processing unit operations.

supervisor call (SVC). A request that serves as the interface into operating system functions, such as allocating storage. The SVC protects the operating system from inappropriate user entry. All operating system requests must be handled by SVCs.

supervisor call (SVC) instruction. An instruction that interrupts the program being executed and passes control to the supervisor so that it can perform a specific service indicated by the instruction.

suppression character. In NetView, a user-defined character that is coded at the beginning of a command list statement or a command to prevent the statement or command from appearing on the operator's terminal screen or in the network log.

SVC. (1) Supervisor call. (2) With X.25 NPSI, switched virtual circuit.

switched line. A communication line in which the connection between the communication controller and a remote link station is established by dialing.

switched major node. In VTAM, a major node whose minor nodes are physical units and logical units attached by switched SDLC links.

switched network backup (SNBU). In VTAM, an optional facility that allows a user to specify, for certain types of PUs, a switched line to be used as an alternate path if the primary line becomes unavailable or unusable.

switched virtual circuit (SVC). An X.25 NPSI circuit that is dynamically established when needed. The X.25 equivalent of a switched line.

symptom string. A structured character string written to a file when VTAM detects certain error conditions.

SYNAD exit routine. A synchronous EXLST exit routine that is entered when a physical error is detected.

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 (ADCCP) of the American National Standards Institute and High-Level Data Link Control (HDLC) of the International Standards Organization.

synchronous operation. In VTAM, a communication, or other operation in which VTAM, after receiving the request for the operation, does not return control to the program until the operation is completed. Contrast with *asynchronous operation.*

synchronous request. In VTAM, a request for a synchronous operation. Contrast with *asynchronous request.*

system management facility (SMF). A standard feature of MVS that collects and records a variety of system and job-related information.

System Modification Program (SMP). An operating system component that facilitates the process of installing and servicing an MVS system. See also *System Modification Program Extended.*

System Modification Program Extended (SMP/E). An IBM program product that facilitates the process of installing and servicing an MVS system. See also *System Modification Program.*

system monitor. The portion of the configuration image in a 3601 Finance Communication Controller that handles communications with control operators and records error statistics and other operational data.

system services control point (SSCP). In SNA, a focal point within an SNA network for managing the configuration, coordinating network operator and problem determination requests, and providing directory support and other session services for end users of the network. Multiple SSCPs, cooperating as peers, can divide the network into domains of control, with each SSCP having a hierarchical control relationship to the physical units and logical units within its domain.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through and controlling the configuration and operation of networks.

System Support Programs (SSP). An IBM program product, made up of a collection of utilities and small programs, that supports the operation of the NCP.

TAF. Terminal access facility.

tailing. A feature on a multi-channel modem that allows another modem link to be attached to one of the channels. See *multi-tailed* and *twin-tailed.* See also *fanout.*

takeover. The process by which the failing active subsystem is released from its extended recovery facility (XRF) sessions with terminal users and replaced by an alternate subsystem. See *resource takeover.*

TAP. Trace analysis program.

task. A basic unit of work to be accomplished by a computer. The task is usually specified to a control program in a multiprogramming or multiprocessing environment.

task panel. Online display from which you communicate with the program in order to accomplish the program's function, either by selecting an option provided on the panel or by entering an explicit command. See *help panel.*

TC. Transmission control.

TCAM. (1) Telecommunications Access Method. (2) The IBM program product whose full name is Advanced Communications Function for TCAM and that provides queued message handling. TCAM Versions 1 and 2 are access methods, but TCAM Version 3 is a message handling subsystem.

TCAS. Terminal control address space.

TCU. Transmission control unit.

telecommunication line. Any physical medium such as a wire or microwave beam, that is used to transmit data. Synonymous with *transmission line.*

teletypewriter exchange service (TWX). Teletypewriter service in which suitably arranged teletypewriter stations are provided with lines to a central office for access to other such stations throughout the U.S. and Canada. Both baudot and ASCII-coded machines are used. Business machines may also be used with certain restrictions.

temporary error. A resource failure that can be resolved by error recovery programs. Synonymous with *performance error*. Contrast with *permanent error*.

terminal. A device that is capable of sending and receiving information over a link; it is usually equipped with a keyboard and some kind of display, such as a screen or a printer.

terminal access facility (TAF). In NetView, a facility that allows a network operator to control a number of subsystems. In a full-screen or operator control session, operators can control any combination of such subsystems simultaneously.

terminal control address space (TCAS). The part of TSO/VTAM that provides logon services for TSO/VTAM users.

terminal component. An addressable part of a terminal that performs an input or output function, such as the display component of a keyboard-display device or a printer component of a keyboard-printer device.

terminate. In SNA, a request unit that is sent by a logical unit (LU) to its system services control point (SSCP) to cause the SSCP to start a procedure to end one or more designated LU-LU sessions.

TG. Transmission group.

TGID. Transmission group identifier.

TH. Transmission header.

threshold. In NetView, refers to a percentage value set for a resource and compared to a calculated error-to-traffic ratio.

threshold analysis and remote access. (1) A component of NetView that can notify a central operator about network problems and errors. It provides remote control of IBM 3600 and 4700 controllers and can record, analyze, and display performance and status data on IBM 3600 and 4700 Finance Communications Systems. (2) The feature of the back-level NPDA program product that performs some of these functions.

TIC. Token-ring interface coupler.

time sharing option (TSO). An optional configuration of the operating system that provides conversational time sharing from remote stations.

timeout recovery. Restarting system operations after they have been interrupted by failure of a certain event to occur.

time sharing option for VTAM (TSO/VTAM). An optional configuration of the operating system that provides conversational time sharing from remote stations in a network using VTAM.

token. A sequence of bits passed from one device to another along the network. When the token has data appended to it, it becomes a frame.

token ring. A network, having a ring topology, that passes tokens from one attaching device to another. For example, the IBM Token-Ring Network.

token-ring interface coupler (TIC). An adapter that can connect a 3725 Communication Controller to an IBM Token-Ring Network.

trace analysis program (TAP). An SSP program service aid that assists in analyzing trace data produced by VTAM, TCAM, and NCP and provides network data traffic and network error reports.

transmission control character. Any control character used to control or facilitate transmission of data between data terminal equipment. Synonymous with *communication control character*.

transmission control (TC) layer. In SNA, the layer within a half-session that synchronizes and paces session-level data traffic, checks session sequence numbers of requests, and enciphers and deciphers end-user data. Transmission control has two components: the connection point manager and session control. See also *half-session*.

transmission control unit (TCU). A communication control unit whose operations are controlled solely by programmed instructions from the computing system to which the unit is attached; no program is stored or executed in the unit. Examples are the IBM 2702 and 2703 Transmission Controls. Contrast with *communication controller*.

transmission group (TG). In SNA, a group of links between adjacent subarea nodes, appearing as a single logical link for routing of messages. A transmission group may consist of one or more SDLC links (parallel links) or of a single System/370 channel.

transmission group identifier (TGID). In SNA, a set of three values, unique for each transmission group, consisting of the subarea addresses of the two adjacent nodes connected by the transmission group, and the transmission group number (1-255).

transmission header (TH). In SNA, control information, optionally followed by a basic information unit (BIU) or a BIU segment, that is created and used by path control to route message units and to control their flow within the network. See also *path information unit.*

transmission line. Synonym for *telecommunication line.*

transmission priority. In SNA, a rank assigned to a path information unit (PIU) that determines its precedence for being selected by the transmission group control component of path control for forwarding to the next subarea node of the route used by the PIU.

transmission services (TS) profile. In SNA, a specification in a session activation request (and optionally, in the responses) of transmission control (TC) protocols (such as session-level pacing and the usage of session-level requests) to be supported by a particular session. Each defined transmission services profile is identified by a number.

transmission subsystem component (TSC). The component of VTAM that comprises the transmission control, path control, and data link control layers of SNA.

transparent mode. A mode of binary synchronous communication (BSC) text transmission in which data are transmitted only as specific bit patterns.

TSC. Transmission subsystem component.

TSO. Time sharing option.

TSO/VTAM. Time sharing option for VTAM.

tutorial. Online information presented in a teaching format.

twin-tailed. When a communication controller with an NCP is attached to two host processors. See *multi-tailed.* See also *fanout* and *tailing.*

TWX. Teletypewriter exchange service.

unbind. In SNA, a request to deactivate a session between two logical units (LUs). See also *session deactivation request.* Contrast with *BIND.*

unformatted. In VTAM, pertaining to commands (such as LOGON or LOGOFF) entered by an end user and sent by a logical unit in character form. The character-coded command must be in the syntax defined in the user's unformatted system services definition table. Synonymous with *character-coded.* Contrast with *field-formatted.*

unformatted system services (USS). In SNA products, a system services control point (SSCP) facility that translates a character-coded request, such as a logon or logoff request into a field-formatted request for processing by formatted system services and translates field-formatted replies and responses into character-coded requests for processing by a logical unit. Contrast with *formatted system services.* See also *converted command.*

uninterpreted name. In SNA, a character string that a system services control point (SSCP) is able to convert into the network name of a logical unit (LU). Typically, an uninterpreted name is used in a logon or Initiate request from a secondary logical unit (SLU) to identify the primary logical unit (PLU) with which the session is requested.

unsolicited message. A message, from VTAM to a program operator, that is unrelated to any command entered by the program operator. Contrast with *solicited message.*

upstream. In the direction of data flow from the end user to the host. Contrast with *downstream.*

upstream device. For the IBM 3710 Network Controller, a device located in a network such that the device is positioned between the 3710 and a host. A communication controller upstream from the 3710 is an example of an upstream device. Contrast with *downstream device.*

upstream line. For the IBM 3710 Network Controller, a telecommunication line attaching a 3710 to an upstream device. Contrast with *downstream line.*

user. Anyone who requires the services of a computing system.

user correlator. A 4-byte value supplied to VTAM by an application program when certain macro instructions (such as REQSESS) are issued. It is returned to the application program when subsequent events occur (such as entry to a SCIP exit routine upon receipt of BIND) that result from the procedure started by the original macro instruction.

user exit. A point in an IBM-supplied program at which a user exit routine may be given control.

user exit queue. A structure built by VTAM that is used to serialize the execution of application program exit routines. Only one exit routine on each user exit queue can run at a time.

USERVAR. An application name used to route a session-establishment request to the currently active application subsystem.

user-application network. A configuration of data processing products, such as processors, controllers, and

terminals, established and operated by users for the purpose of data processing or information exchange, which may use services offered by communication common carriers or telecommunication Administrations. Contrast with *public network*.

user-written generation application. A user-written program that runs with the NCP/EP definition facility (NDF) during NCP generation. It processes definition statements and operands.

using node. An NCP or modem directly attached to a host. For the command facility of NetView and for NCCF, the ID parameter of certain commands refers to the using node.

USS. Unformatted system services.

variable. In NetView, a character string beginning with & that is coded in a command list and is assigned a value during execution of the command list.

viewing filter. In NetView, the function that allows a user to select the data to be displayed on a terminal. All other stored data is blocked.

virtual disk. (1) A logical subdivision (or all) of a physical disk pack in the VM operating system that has its own virtual device address, consecutive virtual cylinders, and a volume table of contents (VTOC) or disk label identifier. (2) Synonymous with *minidisk*.

virtual machine. A functional simulation of a computer and its associated devices.

Virtual Machine (VM). A program product whose full name is the Virtual Machine/System Product (VM/SP). It is a software operating system that manages the resources of a real processor to provide virtual machines to end users. As a time-sharing system control program, it consists of the virtual machine control program (CP), the conversational monitor system (CMS), the group control system (GCS), and the interactive problem control system (IPCS).

virtual machine group. One or more virtual machines that have been loaded in the same group control system (GCS).

virtual route (VR). In SNA, a logical connection (1) between two subarea nodes that is physically realized as a particular explicit route, or (2) that is contained wholly within a subarea node for intra-node sessions. A virtual route between distinct subarea nodes imposes a transmission priority on the underlying explicit route, provides flow control through virtual-route pacing, and provides data integrity through sequence numbering of path information units (PIUs). See also *explicit route (ER)*, *path*, and *route extension*.

virtual route identifier (VRID). In SNA, a virtual route number and a transmission priority number that, when combined with the subarea addresses for the subareas at each end of a route, identify the virtual route.

virtual route (VR) pacing. In SNA, a flow control technique used by the virtual route control component of path control at each end of a virtual route to control the rate at which path information units (PIUs) flow over the virtual route. VR pacing can be adjusted according to traffic congestion in any of the nodes along the route. See also *pacing* and *session-level pacing*.

virtual route pacing response (VRPRS). A non-sequenced, supervisory path information unit (PIU) that flows at network priority. It may overtake VR-sequenced PIUs and consists of a transmission header with no basic information unit (BIU) data.

virtual route selection exit routine. In VTAM, an optional installation exit routine that modifies the list of virtual routes associated with a particular class of service before a route is selected for a requested LU-LU session.

virtual route sequence number. In SNA, a sequential identifier assigned by the virtual route control component of path control to each path information unit (PIU) that flows over a virtual route. It is stored in the transmission header of the PIU. Contrast with *session sequence number*.

virtual storage. (ISO) The notion of storage space that may be regarded as addressable main storage by the user of a computer system in which virtual addresses are mapped into real addresses. The size of virtual storage is limited by the addressing scheme of the computer system and by the amount of auxiliary storage available, not by the actual number of main storage locations.

Virtual Storage Access Method (VSAM). An access method for direct or sequential processing of fixed and variable-length records on direct access devices. The records in a VSAM data set or file can be organized in logical sequence by a key field (key sequence), in the physical sequence in which they are written on the data set or file (entry-sequence), or by relative-record number.

Virtual Storage Extended (VSE). An IBM program product whose full name is the Virtual Storage Extended/Advanced Function. It is a software operating system controlling the execution of programs.

Virtual Storage Extended/Operator Communication Control Facility (VSE/OCCF). A facility that intercepts messages from the VSE supervisor. NCCF and VSE/OCCF help an NCCF operator control multiple VSE systems from a central site.

Virtual Telecommunications Access Method (VTAM). An IBM program product that controls communication and the flow of data in an SNA network. It provides single-domain, multiple-domain, and interconnected network capability.

Virtual Telecommunications Access Method Entry (VTAME). A program product that provides single-domain and multiple-domain network capability for 4300 systems using VSE.

VIT. VTAM internal trace.

VM. Virtual Machine operating system. Its full name is Virtual Machine/System Product.

VM SNA console support (VSCS). A VTAM component for the VM environment that provides System Network Architecture (SNA) support. It allows SNA terminals to be virtual machine consoles. See also *VM/VTAM Communication Network Application.*

VM/SP. Virtual Machine/System Product operating system. Synonym for *VM.*

VM/VCNA. VM/VTAM Communications Network Application.

VM/VTAM Communications Network Application (VM/VCNA). An IBM program product that provides SNA support for VM. It allows SNA terminals to be used as virtual machine consoles. See also *VM SNA console support.*

VR. Virtual route.

VRID. Virtual route identifier.

VRPRS. Virtual route pacing response.

VSAM. Virtual Storage Access Method.

VSCS. VM SNA console support.

VSE. Virtual Storage Extended operating system.

VSE/AF. Virtual Storage Extended/Advanced Function operating system. Synonym for *VSE.*

VSE/OCCF. Virtual Storage Extended/Operator Communication Control Facility.

VTAM. Virtual Telecommunications Access Method (IBM program product). Its full name is Advanced Communications Function for the Virtual Telecommunications Access Method.

VTAM application program. A program that has opened an ACB to identify itself to VTAM and can now issue VTAM macro instructions.

VTAM definition. The process of defining the user application network to VTAM and modifying IBM-defined characteristics to suit the needs of the user.

VTAM definition library. The operating system files or data sets that contain the definition statements and start options filed during VTAM definition.

VTAME. Virtual Telecommunications Access Method Entry.

VTAM internal trace (VIT). A trace used in VTAM to collect data on channel I/O, use of locks, and storage management services.

VTAM operator. A person or program authorized to issue VTAM operator commands. See *domain operator, program operator,* and *network operator (2).*

VTAM operator command. A command used to monitor or control a VTAM domain.

VTAM Terminal I/O Coordinator (VTIOC). The part of TSO/VTAM that converts TSO TGET, TPUT, TPG, and terminal control macro instructions into SNA request units.

VTIOC. VTAM Terminal I/O Coordinator.

window. (1) In SNA, synonym for *pacing group.* (2) A small amount of information in a framed-in area on a panel that overlays part of the panel.

window size. In SNA, synonym for *pacing group size.*

wrap. The continuation of an operation from the maximum addressable location in storage to the first addressable location.

wrap count. In NetView, the number of events that can be retained on the data base for a specific resource.

XID. A data link control command and response passed between adjacent nodes that allows the two nodes to exchange identification and other information necessary for operation over the data link.

XRF. Extended recovery facility.

X.21. See *Recommendation X.21 (Geneva 1980).*

X.21 communication adapter. An IBM 3710 Network Controller communication adapter that can combine and send information on one line at speeds up to 64 kbps, and conforms to CCITT X.21 standards. See also *Recommendation X.21 (Geneva 1980).*

X.25. See *Recommendation X.25 (Geneva 1980).*

X.25 NCP Packet Switching Interface (NPSI). The X.25 Network Control Program Packet Switching Interface, which is an IBM program product that allows SNA users to communicate over packet-switched data networks that have interfaces complying with Recommendation X.25 (Geneva 1980) of the International Telegraph and Telephone Consultative Committee (CCITT). It allows SNA programs to communicate with SNA equipment or with non-SNA equipment over such networks. In addition, this product may be used to attach native X.25 equipment to SNA host systems without a packet network. See also *Recommendation X.25 (Geneva 1980)*.

ZAP disk. The virtual disk in the VM operating system that contains the user-written modifications to VTAM code. See *BASE disk*, *DELTA disk*, *MERGE disk*, and *RUN disk*.

2-wire. A type of coupler that has two wires attached to it. These two wires connect to one telephone line.

4-wire. A type of coupler that has four wires attached to it. These four wires connect to two telephone lines.

31-bit storage addressing. The storage address structure available in an MVS/XA operating system.

3710 network. A 3710 Network Controller and its attached lines and devices.

Information Products Listed in Master Index

Index Code	Abbreviated Title	Order no.
EP-IRD	Emulation Program Installation, Resource Definition, and Diagnosis	SC30-3338
NCP-CS	NCP Customization	LY30-5571
NCP-RF	NCP Reference	LY30-5569
NCP/SSP-DG	NCP and SSP Diagnosis Guide	SC30-3255
NCP/SSP-GL	NCP and SSP Generation and Loading	SC30-3348
NCP/SSP-MI	NCP and SSP Migration	SC30-3252
NCP/SSP-RD	NCP and SSP Resource Definition Reference	SC30-3254
NCP/SSP-RDG	NCP and SSP Resource Definition Guide	SC30-3349
NPP-GI	Network Program Products General Information	GC30-3350
NPP-PL	Network Program Products Planning	SC30-3351
NPP-SAM	Network Program Products Samples: NetView	SC30-3352
NV-AR	NetView Administration Reference	SC30-3361
NV-CL	NetView Command Lists	SC30-3423
NV-D	NetView Diagnosis	LY30-5587
NV-HPD	NetView Hardware Problem Determination Reference	SC30-3366
NV-IA	NetView Installation and Administration Guide	SC30-3360
NV-O	NetView Operation	SC30-3364
NV-OP	NetView Operation Primer	SC30-3363
NV-SC	NetView Scenerios	SC30-3376
SSP-CCPIN	SSP Installation and Diagnosis for CCP	SC30-3262
SSP-CCPUG	SSP User's Guide for CCP	SC30-3261
SSP-DR	SSP Diagnosis Reference	LY30-5564
VTAM-CS	VTAM Customization	SC23-0112
VTAM-DG	VTAM Diagnosis Guide	SC23-0116
VTAM-DR	VTAM Diagnosis Reference	LY30-5582
VTAM-IR	VTAM Installation and Resource Definition	SC23-0111
VTAM-OP	VTAM Operation	SC23-0113
VTAM-PG	VTAM Programming	SC23-0115

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