Enhanced control and monitoring for today's multiprotocol enterprise

IBM Advanced Communications Function/ Network Control Program Version 7

- **Provides the structure to let networks accommodate and exploit high-speed and highly reliable transmission technologies**

- **Helps maximize capability to deliver dependable, high-speed, low-maintenance multi-protocol networking services**

- **Provides world-class support for SNA, APPN, Frame Relay, Token-Ring, IP and X.25**

- **Year 2000 ready**

The IBM Advanced Communications Function/Network Control Program Version 7 (ACF/NCP V7) provides the structure to let networks accommodate and exploit high-speed and highly reliable transmission technologies. Running in conjunction with the IBM 3745 or 3746 Model 900 controllers, ACF/NCP V7 will help you maximize your capability to deliver dependable, high-speed, low-maintenance multiprotocol networking services to your customers. ACF/NCP V7 is intended for customers with large SNA, Frame Relay, IP, High-Performance Routing (HPR) and APPN® backbone networks requiring extensive network computing capabilities and host connections in WANs.

Controllers

High-Performance Controller Software

Product Overview

The Advanced Communication Function/Network Control Program Version 7(ACF/NCP V7) extends and improves the network's ability to accommodate and exploit high-speed transmission technologies including ISDN, and provides world-class support for SNA, APPN, Frame Relay, Token-Ring, IP and X.25.

ACF/NCP V7 performs a wide range of functions for the data communication network, such as transmission control, communication control, error recording and recovery, and diagnosis.

The NCP is a program that resides in the communication controller and controls the flow of data between the host processor and the other components of the network, which include terminals, cluster controllers, Token Rings, or other peripheral devices, as well as other networks or NCPs in other controllers.

ACF/NCP V7 is designed to operate on any IBM 3745 Communication Controller channel-attached to a host processor or remotely connected via an SDLC link, IBM Token Ring, X.25, ISDN or Frame Relay through another controller to a host processor.

Year 2000 ready

ACF/NCP V7 is Year 2000 ready when used in accordance with its associated documentation and is capable of correctly processing, providing and receiving data within and between the 20th and 21st centuries, provided that all other hardware, software, and/or firmware used with the product properly exchange accurate data with it.

Benefits

• Transmission Control. Standard functions of the NCP include: recognizing and reacting appropriately to control characters, controlling communication line time-outs and checking for errors. It also includes assembling serial bit-streams, received from a data link, into characters in a buffer.

• Communication Control. The NCP takes over most of the control of the links from the communication access method, performing such functions as data link activation and deactivation, control character insertion and deletion, dynamic buffering and communication line-speed selection.

• Error recording/recovery and diagnostics. The NCP maintains several types of error records and provides diagnostic capabilities. These include permanent line error recording, statistics recording, dynamic display of controller storage and online testing. This support is provided in combination with the IBM 3745 maintenance and operator subsystem (MOSS) and the appropriate operator console.

• Emulation mode support. When executing in a channel-attached communication controller, ACF/NCP V7 can operate data links in emulation mode as well as network control mode, through the partitioned emulation programming (PEP) extension to ACF/NCP V7. The PEP extension allows the communication controller to emulate most operations of an IBM 2701 Data Adapter Unit or an IBM 2702 or 2703 Transmission Control Unit (or any combination of the three) for certain data links, while performing network control functions for other links. For the IBM 3745, the facilities offered by MOSS and the appropriate operator console are available to the user of emulation mode support.

Network Control Program Specifications

Operating environment

ACF/NCP V7R7 (Program Number 5648-063) is designed for operation with OS/390®, MVS/ESA™, VM/ESA® and VSE/ESA.

Hardware requirements

ACF/NCP V7 runs in the IBM 3745 Communication Controller for which it has been generated and into which it has been loaded. The IBM 3745 Communication Controller can be channel-attached to a host processor or remotely connected to a host processor by a supported attachment to another controller.

Programming requirements

The following ACF/System Support Programs (ACF/SSPs) are required for generation support of ACF/NCP Version 7 Release 7:

  SSP V4R7 for MVS/ESA (Program Number 5655-041)
  SSP V4R7 for VM/ESA (Program Number 5654-009)
  SSP V4R7 for VSE/ESA (Program Number 5686-064)

ACF/NCP V7R7 supports the following releases of ACF/VTAM at the functional level of the access method as long as program services for the VTAM release are available:

  eNetwork™ Communications Server for OS/390 Release 1 or later
  ACF/VTAM V4R4
  ACF/VTAM V4R3
  ACF/VTAM V4R2
  ACF/VTAM V4R1
  ACF/VTAM V3R4.2
  ACF/VTAM V3R4.1
  ACF/VTAM V3R4
  ACF/VTAM V3R3
  ACF/VTAM V3R2

Key Customer Benefits

• Comprehensive Frame Relay switching
• Solid IP support
• Excellent APPN capabilities
• World-class subarea routing solutions
• High-speed X.25 SNA transmission capabilities

Supplementary Information

The following sales tools are available for the NCP:

• Information on the NCP is available at:
  www.networking.ibm.com/375/375prod.html