

LetNo ZP97-0235
Date 970325
Revised 970325
Class IBM Europe
Programming Announcement

Title

IBM Communications Server for Windows NT, Version 5.0 Offers Robust Communications, Networking, and System Management

Program Number

5639-B53 Communications Server for Windows NT, Version 5.0

Program Packages	Part-No.
Germany	4231772
France	4231774
Italy	4231776
Spain	4231778
U.S.English	4231747
Program Package Upgrade	
Germany	4231773
France	4231775
Italy	4231777
Spain	4231779
English	4231755
USE(R) Authorizations (any language)	
Server	4231748
Server -Upgrade	4231756
Concurrent Users 1 Pack	4231750
Concurrent Users 5 Pack	4231751
Concurrent Users 10 Pack	4231752
Concurrent Users 50 Pack	4231753
Concurrent Users -Upgrade 1 Pack	4231784
ISAW (Software Advantage; any language)	
Server	4231749
Server -Upgrade	4231757
Concurrent Users 1-Pack	4231754
Concurrent Users 1-Pack -Upgrade	4231785
Upgrade Protection (One Time Charge; any language)	
Server	4231760
Concurrent User -1 Pack	4231780

Overview

Communications Server for Windows NT, Version 5.0 is a new member of the IBM Software Server series, a family of modular application servers. These servers enable you to rapidly implement client/server applications and extend application capabilities to meet future business requirements.

Communications Server for Windows NT interconnects diverse networks and should prove to be a winner for your business. With Communications Server, workstation users and applications can communicate with other workstations and central computer applications, regardless of the networking protocols. Communications Server can help you get users communicating between networks of all sizes, from small workgroups to large corporate headquarters.

Communications Server for Windows NT provides an industrial-strength networking solution for your workstation for host terminal emulation, client/server and distributed applications, or connectivity across LANs and WANs

For true networking flexibility, a wide range of connectivity services and options are provided. Workstations and gateways can communicate using protocols such as TCP/IP and SNA. The connection can be over WANs using SDLC or X.25 protocols on switched or nonswitched lines or over LANs using IBM Token-Ring or Ethernet protocols. Mobile users can directly access their host system or another Communications Server using public telephone networks.

Communications Server supports a variety of APIs and protocols ideal for client/server applications and distributed processing. Communications Server also protects your investment in applications by providing compatible APIs for clients and servers. Programs using these APIs can run on any node in the network, whether it is a client or server.

Communications Server for Windows NT provides businesses with the opportunities to:

- Expand the use of applications while protecting current network investments
- Reduce operation and management costs by connecting networks without impacting existing applications
- Reduce costs of central computer and peer-to-peer connectivity by sharing communication resources
- Gain efficiency in response times by assigning priority to short, interactive data transmissions rather than to batch-oriented, bulk data traffic
- Increase productivity and convenience by providing employees access to applications from either the office or mobile environments

Planned Availability Date:

March 28, 1997

Marketing Information

Marketing Channels

IBM Marketing Representative

ISMS Direct Services: In the countries which have agreed to and set up to use Direct Services, Copenhagen (refer to the Ordering Guide 93-208 on Hone EPLI).

IBM Business Partners (*) acting as Remarketers of IBM PC Computers

IBM Business Partners (*) acting as Remarketers of IBM Networking Products (Base)

IBM Software Remarketers

Industrial Integrators

(*) Business Partners are called Business Associates in U.K. and Ireland.

Marketing Strategy

The IBM Software Servers family of software products (including the Communications Servers) represent the widest range of servers in the industry. The new Communications Server for Windows NT, Version 5.0 is a member of this software family. Together, these servers provide unrivaled function, openness, and scalability, laying the basis for IBM's vision of network computing. Communications Servers are available for the AIX, OS/2, NetWare, and now Windows NT environments.

With IBM Communications Servers, customers can meet changing network requirements responsively while providing around-the-clock availability.

Communications Server for Windows NT provides an excellent, flexible solution for the networking and communications requirements of customers who want to connect into existing SNA or TCP/IP networks and customers establishing new networks. The Communications Server also is beneficial to customers with existing hierarchical SNA networks and to customers taking advantage of the peer-to-peer distributed networking capabilities of APPN. It is a high-performance, multifunction, multiprotocol gateway and networking application that enables workstations to communicate with other workstations and host computers.

Communications Server for Windows NT should be marketed to all customers in the Windows NT environment who need reliable and powerful networking support to enable workstations to communicate with other workstations and with host computers in today's complex environment of multiprotocol and multiple networks.

The Communications Server for Windows NT has these key advantages:

- High availability
 - High Performance Routing (HPR) provides improved performance and increased availability. HPR quickly and smoothly routes data across the network, selecting optimum routes, avoiding network congestion, and automatically rerouting around network outages without disruption.
- Business flexibility
 - Choose your application - Sockets or SNA - without regard to the underlying network.
 - Choose your network, SNA or TCP/IP, to reduce complexity and control costs by not maintaining parallel networks.

For example, if you already have an SNA network, you can connect your business to the Web or use Web Servers and browsers for workgroup collaboration without adding a duplicate TCP/IP network.
- Investment protection
 - Communications Server for Windows NT smoothly integrates with your existing systems. It protects customers' investments in existing SNA environments and easily migrates existing APPN network installations.
 - Communications Server for Windows NT protects customers' investments in existing emulators by supporting existing IBM and non-IBM 3270 and 5250 terminal emulators.
 - Communications Server for Windows NT protects customers' investment in SNA communications network support while giving them the freedom to adapt to changing network needs. It provides robust multiprotocol support which enable customers to expand the scope of their existing SNA or TCP/IP network to embrace multiprotocol traffic. Investments in networking skills, operating procedures and hardware can be

preserved and leveraged. Customers can interconnect networks without impacting applications and reduce operational and management costs at the same time.

Program Services

Central Service through mail or fax will be provided by IBM until March 28, 1999.

Additional fee support will be provided through the IBM Support Line and Country specific service offerings. Please contact IBM for further information on what is available in your Country.

This program will be subject to the terms of the IBM International Program License Agreement (IPLA) contained in the program package, and not to the Agreement for IBM Licensed Programs.

This Statement is complementary to the IBM IPLA contained in this package:

Program Name: IBM Communications Server for Windows NT Version 5.0

Program Number: 5639-B53

Service End Date: March 28, 1999

Part Number: 4231772...4321779

For program defect related problems, the following procedure for assistance in problem identification is applicable:

- Contact your remarketer or distributor or, alternatively
- Mail or fax the written problem description to IBM.

IBM will reply in writing with information about correction, bypass or restriction with the intent to make the program perform according to its specifications, or, if there are none, to its principles of operation.

Customer information needed when submitting a problem:

- Address and contact name
- Current maintenance/Corrective Service Diskette (CSD) level
- Problem Description (typed, not hand written)

Additional information on customer reported problems can be obtained from your remarketer/distributor or IBM.

Software Advantage for Workstations Agreement

The product(s) is/are eligible to the terms of the Software Advantage for Workstations Agreement (Standard Offering including Upgrade Protection).

Marketing Support

Promotional Material

INEWS contains references to promotional materials that support this announcement.

Promotional materials are also available on MKTTOOLS in the CSNTMKT package.

The following brochures are available:

- IBM Communications Server for Windows NT (G325-3684)
- IBM Communications Server for Windows NT Top 10 Reasons (G325-3683)
- IBM Communications Server (G325-3565)

- IBM Communications Server Family (G325-5207)
- IBM Enterprise Communications Family Folder (G325-5220)

Additional information about the Communications Server for Windows NT can be obtained via the World Wide Web URL:

<http://www.networking.ibm.com/csn/csnprod>

HONE Information

EMEA's software configurator, CFSW, will support these products.

Configurator Information

The following configurator aids will be updated to support this announcement:

Configurator Aid -----	Date Available -----
CFSW	03/25/97

This support will be provided on

ELINK and EHONE

and will be available to customers eligible to use IBMLINK.

Installation Information

Field Support

Field Support is provided through HONE/QUESTION (QA).

Direct Customer Support

Installation and technical support is provided by the Personal Systems Support Family.

Early Support Program

No.

Administrative Information

Special Bid Requests

Requests for Special Bid Offerings should be directed through the Country SBO Organization. Contact the Country SBO Manager for further information.

Ordering Information

Refer to SWORDERINFO and CFSW on HONE.

Order Control Codes

- Program Name: Communications Server for Windows NT, Version 5.0
- Program Type: 5639
- Program Model: B53
- Function Class Code: 7213
- Product Identity Code: 5
- Division: SWS
- Industry Definition Categories: 14
- Integrated Product: No

- ALP/IPLA: IPLA
- EMEA Marketing Brand Code: G
- EMEA Marketing Brand Manager: D.Gaborit (GABORIT at LGEPROFS)

EMEA Pricing Statement

Consult your pricing organisation for pricing information regarding this announcement.

International Volume Offering

None of the product(s) in this announcement letter is/are eligible for the International Volume Offering (IVO) Exhibit.

Terms and Conditions for Remarketers

Available to IBM Business Partners acting as Remarketers for PC Computers under the terms of the Business Partner Agreement.

Available to IBM Business Partners acting as Remarketers for Networking Products (Base) under the terms of the Business Partner Agreement.

Warranty

IBM standard warranty of media. Warranty period 3 months (or the period required by local legislation, if greater).

Update to the Summary of product related Terms and Conditions applicable to IBM Remarketers for IBM PC Computers Networking Products (Base)

This program is added to the list of Category 2 - IBM Program Packages specified under entry number 3 (Programs and Categories).

Education Program

Education Program is available.

Education Software Allowance Program is not available.

Program Services

Program Services if available, and any refresh or update shipments, will be available to IBM Remarketers.

Additional fee support through IBM Support Line is provided for Remarketers.

Terms and Conditions for Industrial Integrators

Available to Industrial Integrators under the terms of the agreement for supply of IBM products to Industrial Integrators.

Summary of product related Terms and Conditions applicable to IBM IBM Networking Products (Base) under the Industrial Integrator Offering

This program is added to the list of Category 2A-IBM Program Packages specified under entry number 3 (Programs and Categories).

Announcement Countries

All European, Middle Eastern and African Countries.

IBM Announcement Letter No. ZP97-0235 dated March 25, 1997.

See final section for details of availability and limitations, if applicable.

Title

IBM Communications Server for Windows NT, Version 5.0 Offers Robust Communications, Networking, and System Management

Overview

Communications Server for Windows NT, Version 5.0 is a new member of the IBM Software Server series, a family of modular application servers. These servers enable you to rapidly implement client/server applications and extend application capabilities to meet future business requirements.

Communications Server for Windows NT interconnects diverse networks and should prove to be a winner for your business. With Communications Server, workstation users and applications can communicate with other workstations and central computer applications, regardless of the networking protocols. Communications Server can help you get users communicating between networks of all sizes, from small workgroups to large corporate headquarters.

Communications Server for Windows NT provides an industrial-strength networking solution for your workstation for host terminal emulation, client/server and distributed applications, or connectivity across LANs and WANs

For true networking flexibility, a wide range of connectivity services and options are provided. Workstations and gateways can communicate using protocols such as TCP/IP and SNA. The connection can be over WANs using SDLC or X.25 protocols on switched or nonswitched lines or over LANs using IBM Token-Ring or Ethernet protocols. Mobile users can directly access their host system or another Communications Server using public telephone networks.

Communications Server supports a variety of APIs and protocols ideal for client/server applications and distributed processing. Communications Server also protects your investment in applications by providing compatible APIs for clients and servers. Programs using these APIs can run on any node in the network, whether it is a client or server.

Communications Server for Windows NT provides businesses with the opportunities to:

- Expand the use of applications while protecting current network investments
- Reduce operation and management costs by connecting networks without impacting existing applications
- Reduce costs of central computer and peer-to-peer connectivity by sharing communication resources
- Gain efficiency in response times by assigning priority to short, interactive data transmissions rather than to batch-oriented, bulk data traffic
- Increase productivity and convenience by providing employees access to applications from either the office or mobile environments

Intended Customers

For customers who need a full range of communications and connectivity offerings on the Windows NT platform.

Key Prerequisites

- Windows NT 3.51 or Version 4.0
- 100MHz Intel Pentium-based processors with 32MB RAM (recommended minimum)

At a Glance

Use applications written for one protocol in networks using another protocol, without changing the applications.

- A broad range of communication, connectivity, and networking options
- A powerful SNA gateway
- A wide variety of 32-bit APIs
- Local and wide area connectivity support
- Extensive APPN support
 - End and Network node
 - High Performance Routing
 - Discovery of service providers
 - Dependent LU Requester
- TCP/IP-attached clients can access SNA APIs without SNA protocols between the client and server
- Extensive multiprotocol support
 - AnyNet SNA over TCP/IP and Sockets over SNA (access node and gateway)
 - TN3270E Server
 - Host On-Demand
- Local and remote configuration and administrative support
- Web-based server administration
- Entry-level terminal emulation function

Planned Availability Date: March 28, 1997

See the complete letter for National Language Availability.

Description

Advanced Peer-to-Peer Networking (APPN)

APPN is a networking extension to APPC that simplifies configuration and enhances management of a group of workstations using APPC or CPI-C transaction programs. An APPN network consists of end nodes and network nodes. The end node serves as an end-point in an APPN network and maintains directory information for local resources and the registration of these resources with a network node. The network node contains the full category of APPN functions and provides directory services, route selection, and management services to all the end nodes.

APPN provides customers and network administrators with a decreasing configuration workload and greater flexibility in managing networks. With APPN, you can:

- Add, delete, or move nodes within the network with limited system definition at the affected node, and no other definition at other nodes
- Use defaults for reducing required system definition
- Significantly improve the performance of communications between APPC and CPI-C applications, especially in a LAN environment
- Use APIs to automate configuration changes and add network management capabilities

Dependent LU Requester (DLUR)

DLUR lets you transport dependent LU traffic through an APPN network. A DLUR is an APPN end node or network node that uses dependent LUs but requests that a Dependent LU Server (DLUS) provide the system service control point (SSCP) for those dependent LUs through an APPN network. A DLUS controls conversion from a subarea environment to an APPN environment, allowing central management control of remote dependent LUs to be maintained while benefiting from an APPN network.

DLUR and VTAM's DLUS function enables dependent LUs (1, 2, 3, and dependent LU6.2) to operate unchanged in an APPN network without changing applications. It supports dynamic and multiple paths through the network and eliminates the need for dependent LUs (or their gateway) to be adjacent to the VTAM host.

Discovery of Service Providers

Discovery is a LAN address resolution protocol that can be used by a node on the LAN to find another node that matches specific search criteria. By specifying the search parameters, a node can search for APPN network nodes, nodes that provide SNA boundary function, AS/400s, SNA gateways, or user-defined classes of server. Discovery support further simplifies configuration by automatically finding network nodes for the end nodes.

A Communications Server for Windows NT server can respond to requests from clients as a network node server, PU2.0 gateway, or as a user-defined class of server.

SNA Gateway

The full-function SNA gateway allows multiple LAN-attached workstations to access one or more System/370, System/390, or AS/400 host systems through one or more physical connections. The gateway acts as an intermediary between the workstation and the host system and reduces the cost of host connections per workstation. From the host perspective, the gateway appears as an SNA PU2.0 node, supporting one or more LUs per workstation, with all LUs belonging to the gateway PU. To the supported workstations, the gateway appears like an SNA PU4 communications controller and forwards such host requests as BIND and UNBIND. The workstation LUs are not aware of the SNA gateway. The gateway, however, is aware of all LUs at the workstation.

SNA gateway capabilities include:

- LU types 0, 1, 2, 3, and dependent LU6.2
- Any type of downstream workstations that support standard IBM SNA connectivity protocols
- Support for LUs 0, 1, 2, and 3 to an AS/400 host system using SNA passthrough. The AS/400 host passes the data through to a System/390 host
- Support for the forwarding of network management vector transports (NMVTs) between the workstations and the host system
- LU pooling, a condition where the LUs defined in the gateway can be grouped together in a "pool" for multiple workstations providing benefits such as reduced configuration, and load balancing/backup

- Multiple LU pools, each pool associated with a specific application
- Common pools associated with multiple hosts
- Up to 254 LUs per PU, with no limit on the number of PUs

SNA API Client Support

The SNA API client support allows TCP/IP-attached clients to access SNA APIs without requiring SNA protocols to flow between the clients and the server. This remote API allows most SNA configurations to take place at the central server. The SNA clients provide support for CPI-C, EHNAPPC, LUA RUI, APPC, and limited support for NOF, MS, and Common Services interfaces, while providing the actual SNA processing at the server. These clients are delivered as part of the server but are actually installed and configured at the client.

A Communications Server Software Developers Toolkit (which can be separately installed from the Communications Server for Windows NT CD-ROM) is also available for application developers to use. The toolkit contains samples, header files, library files, and online manuals for each of the APIs.

Communications Server for Windows NT supports SNA API clients on Windows 95, Windows NT, Windows 3.x, and OS/2 platforms.

32-bit APIs

Communications Server for Windows NT supports a wide range of 32-bit APIs on the server for the application program developer. These APIs provide convenient ways for application programs to access Communications Server functions and allow applications to address the communication needs of connections to both IBM and other computers. In addition, the interfaces provided support SNA protocols so standardization is ensured.

API support includes:

- Advanced Program-to-Program Communications (APPC)
- Common Programming Interface for Communications (CPI-C)
- Conventional LU Application Interface (LUA) RUI
- WinSock
- Network Operator Facility
- Management Services
- Common Services

AnyNet SNA over TCP/IP (Access Node and Gateway)

The AnyNet SNA over TCP/IP function allows SNA applications to communicate over interconnected TCP/IP and SNA networks. The SNA over TCP/IP access node allows SNA applications to communicate between workstations or a host to a workstation across a TCP/IP network. This function supports independent LU6.2 and dependent LU 0, 1, 2, 3, or 6.2. In addition, the SNA over TCP/IP access node can be used with SNA gateway to enable SNA gateway sessions over a TCP/IP network.

The SNA over TCP/IP gateway function extends the reach of SNA applications by allowing these applications in an SNA network to communicate with SNA applications in an IP network. This gateway supports independent LU6.2 sessions.

AnyNet Sockets over SNA (Access Node and Gateway)

The Sockets over SNA access node function enables TCP/IP application programs, using the WinSock 1.1 and Winsock 2.0 socket interface, to communicate over an SNA network.

The Sockets over SNA gateway function enables sockets applications in SNA and TCP/IP networks to communicate. Sockets over SNA gateways are often used to connect isolated TCP/IP networks using an SNA backbone network.

TN3270E Server

TN3270E Server provides a method, based on standards, that allows TCP/IP clients easy access to the large number of existing legacy applications residing on IBM host systems without changing to the application programs.

The TN3270E Server is compliant with the industry-standard Request for Comment (RFC) 1576, 1646 and 1647. This capability provides 3270 terminal and printer emulation to TCP/IP users in an open, standard environment. TN3270E defines a new Telnet option and subnegotiations that allow a client or server to negotiate exactly which terminal type and features are supported. Clients and servers supporting TN3270E can now negotiate to pass SNA responses to guarantee end-to-end printer confirmation.

TN3270E Server supports any downstream TN3270 or TN3270E client which adheres to the RFCs stated above.

Local and Remote Configuration and Administration

A configuration GUI provides a user interface for entering configuration data. Local configuration is supported at both the client and server level.

The Node Operations application allows users to remotely or locally stop, start, and monitor resources in the network. The Node Operations application is also supported from any Windows NT client.

Web-based Server Administration

Communications Server for Windows NT includes a new Web-based tool that provides a remote integrated cross-server administration capability. IBM takes Web-based server administration to a new dimension. A simple GUI provides a convenient, at-a-glance status of Communications Server while a consistent user interface preserves a common look and feel across server platforms.

Host On-Demand

Continuing to advance our strategy of providing network computing solutions, Communications Server for Windows NT provides Host On-Demand, designed to provide fast and easy access to host information from intranets and the Internet. Host On-Demand is a Java-based solution that incorporates industry-standard Telnet 3270 protocols. It provides a high-performance, low cost solution for intranet and Web users who need occasional access to their central computer applications or databases from any Java-enabled user platform.

The license for Communications Server for Windows NT, Version 5.0 includes the use of the product Host On-Demand. Host On-Demand can be used to support as many concurrent users/clients as allowed by the terms of the associated Communications Server for Windows NT license.

For additional information on Host On-Demand refer to the World Wide Web URL:
http://www.networking.ibm.com/hex/hexprod_en.html

Entry-Level Emulator

Communications Server for Windows NT includes an entry-level version of the popular Personal Communications 3270 and 5250 emulator for administrative purposes. This emulator provides basic 5250 and 3270 support and provides a subset of the features and functions in the full-function IBM Personal Communications family of emulators. The emulator is authorized to run on the server only.

The entry-level emulator functions include:

- Color mapping
- Command line transfer (3270 only)
- Full font set
- Various screen sizes (Models 2 through 5)
- Two sessions

Data Security

Communications Server for Windows NT provides basic and enhanced security support at the session and conversation levels. Security features limit which Windows NT users may access SNA resources through the SNA API clients. Conversation security includes support for password substitution. Enhanced LU-LU security is also provided.

Product Positioning

Communications Server for Windows NT takes advantage of IBM's experience with SNA, TCP/IP, and communications servers to provide a high-performance, high-quality communications solution for the Windows NT environment.

The Communications Server provides an essential foundation for networked computing by supporting the most widely used networking technologies, enabling customers and business partners to build client/server applications independent of networking protocol or hardware.

The full implementation of APPN (end node and network node), HPR, and DLUR, along with the integrated SNA gateway capabilities, positions the Communications Server as a participant in either a host (hierarchical) or peer-to-peer distributed network environment.

With the integrated AnyNet (access node and gateway), TN3270E Server, and the Host On-Demand capabilities, the Communications Server is well positioned for customers with multiprotocol networking environments.

Communications Server for Windows NT is the solution for companies in the Windows NT environment that:

- Run multiprotocol or multiple networks
- Want to consolidate or change their backbone networks
- Have existing SNA applications they want to extend over TCP/IP networks
- Have existing sockets applications they want to extend over SNA networks
- Want to provide SNA 3270 host access to TCP/IP users via TN3270E
- Want to provide SNA host access to any Java-enabled Web browser

- Want to improve network availability
- Want to access data from anywhere using familiar interfaces and protocols
- Need to support users in a variety of locations, in the office, at home or traveling

National Language Support:

Separate program packages are provided for the following languages: U.S. English, Japanese, Chinese, Taiwanese, Korean, Brazilian Portuguese, German, French, Italian, Spanish, and Canadian French. The program package also includes the Quick Beginnings publication in hardcopy, translated to the respective language. Messages, screens, help text, log data, and all additional unlicensed publications are available in translated versions.

Reference Information

Program Number

5639-B53 Communications Server for Windows NT, Version 5.0

Program Packages		Part-No.
	Germany	4231772
	France	4231774
	Italy	4231776
	Spain	4231778
	U.S.English	4231747
Program Package Upgrade		
	Germany	4231773
	France	4231775
	Italy	4231777
	Spain	4231779
	English	4231755
USE(R) Authorizations (any language)		
	Server	4231748
	Server -Upgrade	4231756
	Concurrent Users 1 Pack	4231750
	Concurrent Users 5 Pack	4231751
	Concurrent Users 10 Pack	4231752
	Concurrent Users 50 Pack	4231753
	Concurrent Users -Upgrade 1 Pack	4231784
ISAW (Software Advantage; any language)		
	Server	4231749
	Server -Upgrade	4231757
	Concurrent Users 1-Pack	4231754
	Concurrent Users 1-Pack -Upgrade	4231785
Upgrade Protection (One Time Charge; any language)		
	Server	4231760
	Concurrent User -1 Pack	4231780

Availability of National Languages

Description	Availability Date	Countries
English NL version	03/28/97	In EMEA
German NL version	06/27/97	Worldwide
French NL version	06/27/97	Worldwide
Italian NL version	06/27/97	Worldwide
Spanish NL version	06/27/97	Worldwide

Supplemental Information

Publications

One copy of *Communications Server for Windows NT: Quick Beginnings* (GC31-8424) is shipped in the program package.

The following Communications Server publications will be available separately via PUBSORDERING on HONE (at planned general availability date).

Title	Order Number
-----	-----
Communications Server for Windows NT: Quick Beginnings	GC31-8424
Client/Server Communications Programming	SC31-8425
System Management Programming	SC31-8426

An HTML version of the Quick Beginnings will be placed on the Communications Server for Windows NT product Home Page on the World Wide Web (<http://www.networking.ibm.com/csn/csnprod.html>). The HTML requires an HTML browser that supports HTML 3.0.

Displayable Softcopy Publications

Communications Server for Windows NT publications are provided in displayable softcopy form. All unlicensed publications are included.

The publications are provided as Adobe Acrobat.PDF files and are included with the program package on the same CD-ROM.

Also included with the program package on the same CD-ROM is a product *Tutorial*. The Tutorial is launched from the product during the "Configuration task" with the Help button. The Tutorial is translated in the following languages: German, French, Italian, Spanish. Japanese, Taiwanese, and Brazilian Portuguese.

The following publications can be ordered after planned availability.

Title	Order Number	Language
-----	-----	-----
Quick Beginnings	GC31-8424	U.S. English
Quick Beginnings	GC12-2477	German
Quick Beginnings	GC11-1246	French
Quick Beginnings		Spanish
Quick Beginnings	GC13-2682	Italian
Quick Beginnings		Brazilian Portuguese
Client/Server Comm. Prog. Communications Program	SC31-8425	U.S. English
Communications Program		
System Management Program	SC31-8426	U.S. English

Open Enterprise:

Communications Server for Windows NT supports the Multiprotocol Transport Network (MPTN) from X/Open.

Technical Information

Specified Operating Environment

Hardware Requirements: Communications Server for Windows NT Server, Version 5.0 can be used on all Intel-based systems supported by Windows NT Version 3.51 or Version 4.0. A 100MHz processor and 32MB RAM is recommended; depending on the network environment, a faster processor and larger memory may be necessary. Disk space of 10MB is required on a startup drive for temporary use and 70MB on any hard drive for permanent use.

The Communications Server for Windows NT Remote Administration clients and the SNA API clients will run on any hardware required by Windows 3.1, Windows 95, OS/2, and Windows NT (Intel only).

Communications Adapters: One or more network communication adapters (and appropriate cable) may be required.

Communications Server for Windows NT, Version 5.0 is compatible with the following adapters:

- IBM ISA/EISA WAN Adapters
 - Multiprotocol Communications Adapter for SDLC over leased and switched connections
 - Wide Area Connector for SDLC, X.25 over leased and switched connections
 - Serial/Parallel Adapters (synchronous port) for SDLC

- IBM Micro-Channel WAN Adapters
 - Multiprotocol Communications Adapter for SDLC over leased and switched connections
 - Wide Area Connector for SDLC, X.25 over leased and switched connections
 - Serial/Parallel Adapters (asynchronous port) over asynchronous connections

- IBM PCI and PCMCIA WAN Adapters
 - Serial/Parallel Adapters (asynchronous port) over asynchronous connections

- Non-IBM ISA/EISA WAN Adapters
 - BusTech, Inc. (Bus&Tag and ESCON adapters) over SNA channel connections
 - Eicon Technology for Frame Relay over leased and switched connections

Note: The Communications Server for Windows NT also is compatible with a wide variety of LAN adapters including any adapters with NDIS drivers supported by Microsoft Windows NT. For current and complete information relative to hardware and software compatibility for LAN and WAN adapters refer to the Communications Server Web pages at this URL:

<http://www.networking.ibm.com/csn/csnprod.html>

Software Requirements: Communications Server for Windows NT requires either Windows NT Server Version 3.51 or Windows NT Server Version 4.0. Additionally:

- When using Windows NT Server Version 3.51, Service Pack 4, or above, is required to support the SNA API clients
- TCP/IP is required for communication with the Remote Administration and SNA API clients

Remote Administration Clients require either Windows NT Workstation or Server Versions 3.51 or 4.0. TCP/IP is required for communications with Communications Server for Windows NT (Server).

SNA API Clients requires either:

- OS/2 Warp Version 3.0, or later
- Windows 3.1.1, or later
- Windows 95, with service pack 1 and the following fix:
 - Microsoft Knowledge Base article id: Q128366
 - Creation date: 11Mar96
 - Web site for downloading fix:
www.microsoft.com/windows/software/krnlupd.htm
- Windows NT Workstation or Server
- Windows NT Server 3.51 with service pack 4, or above
- Windows NT Server 4.0
- TCP/IP is required for communications with Communications Server for Windows NT (Server)

Host On-Demand requires any Web server capable of serving Java applets to be installed on the same machine as Communications Server for Windows NT.

Compiler Requirements: Compilers for applications under Communications Server for Windows and SNA API clients for Windows 95 and Windows NT Versions 3.51 and 4.0:

- IBM VisualAge for C++ for Windows, Version 3.5
- Microsoft Visual C++ for Windows NT Version 4.1

Compiler for applications under SNA API clients for OS/2 is IBM VisualAge for C++ for OS/2, Version 3.

Compiler for applications under SNA API clients for Windows 3.1 is Microsoft Visual C++ Version 1.51 or 1.52.

Compatibility

Communications Server for Windows NT, Version 5.0:

- Compatible with Transaction Server for Windows NT, Version 4
- Supports both APPN and traditional SNA functionality as a type 2.1/2.2 node
- API client software for OS/2, Microsoft Windows 3.1, Windows 95, and Windows NT support SNA application programs without requiring a full SNA product on each workstation
- Will interoperate completely with any other full SNA product

Communications Server for Windows NT does not support other implementations of partial-stack SNA clients.

Limitations

Communications Server for Windows NT, Version 5.0 runs only on the Windows NT operating system in the Intel environment.

Performance Considerations

Performance can be affected by:

- Type of connection and network characteristics
- Number of users and concurrent sessions
- Type of tasks
- Available installed memory
- Reliability, availability, serviceability (RAS) and/or trace activity

Communications Server Family Technology Highlights: The following summarizes the functional contents of the IBM Communications Server family of products.

CS/2 4.1	CS/NT 5.0	CS/AIX 4.2	OS/400	NetWare 2.2	CS/MVS OS/390
-------------	--------------	---------------	--------	----------------	------------------

Industry-leading SNA support:

o 3270 SNA gateway	X	X	X		X
o APPN EN and NN function	X	X	X	X	X
o High Performance routing					
- intermediate node routing	X	X	X	X	X
- HPR connection endpoint	X	X			X
o 3270 support over APPN (DLUS/DLUR)	X	X	X		X

Multiprotocol support:

o TN3270E server	X	X	X		X
o Sockets over SNA access node	X	X	X	X	X
o APPC over TCP/IP access node			X	X	
o SNA over TCP/IP access node	X	X			X
o Sockets over SNA gateway	X	X	X		X
o APPC over TCP/IP gateway			X	X	
o SNA over TCP/IP gateway	X	X			X
o IPX over SNA gateway	X				X
o IPX over TCP/IP gateway	X				
o NetBIOS over SNA gateway	X				
o NetBIOS over TCP/IP gateway	X				

NetWare Directory Services integration X

Planning Information

Customer Responsibilities

License Management: Communications Server for Windows NT includes a tool for license management. This license is included in the program package on the CD-ROM and is installed along with the product. During installation you are prompted to enter the number of concurrent licenses purchased. Each workstation counts as one licensed user regardless of the number of sessions that are active with the Communications Server. If the number of concurrent users exceeds the number of concurrent licenses purchased, then an error message is logged. No product function is disabled even in the case of the licenses being exceeded. Further connections are still allowed with an error message being logged for each connection as long as the license count is exceeded. You are expected to monitor the log and purchase additional licenses if you consistently exceed your initial license quantity.

Packaging

The Communications Server for Windows NT package includes:

- One CD-ROM
- Hardcopy publication: Quick Beginnings
- IBM International Program License Agreement Booklet
- IPLA Pointer Sheet
- License Information
- Proof of Entitlement

There is no registration card in the program package. The product contains the software registration tool, Active Registration Tool.

This tool should be used to register the Communications Server for Windows NT.

Security, Auditability and Control

Communications Server for Windows NT uses the security and auditability features of the Windows NT operating system Version 3.51 or 4.0.

User management is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering Information

Consult your IBM Marketing Representative.

Note:

- Charges for Communications Server for Windows NT, Version 5.0 are based on concurrent users (not sessions). A workstation counts as one user regardless of the number of active sessions.
- The Program Package includes authorization for one user.
- The customer can determine the maximum (total) number of users required in the network and allocate these users to one Communications Server for Windows NT.

Upgrades:

- Upgrades are available from any IBM or non-IBM (Competitive Offering) SNA gateway or communications server product.
- The Communications Server for Windows NT, Version 5.0 Upgrade Program Package includes authorization for one user.
- When upgrading from a user-based product, the customer is authorized to purchase the equivalent number of users at a reduced price using the User Authorization for Upgrade - 1 pack feature (Refer to part number 4231784).
- New and additional users must be acquired at the full price using the User Authorization features for 1, 5, 10, 50 pack (Refer to part numbers 4231750, 4231751, 4231752, and 4231753).

- When upgrading from a non user-based product, the customer is NOT entitled to any User Authorization for Upgrade. All users are considered as new users and must be acquired at the full price.

Charges, Terms & Conditions for IPLA Program Package

Consult your IBM Marketing Representative for the following applicable charges:

- Use Based One Time Charge

Terms and Conditions

This Licensed Program is subject to the provisions of the IBM International Program License Agreement, a copy of which is contained in the program package.

The terms of the International Program License Agreement allow use on only one machine at any one time for each license granted.

License Information

This section should be read in conjunction with the following two sections on Warranty and Program Services.

These are the additional terms referred to in the International Program License Agreement (IPLA).

This License is for IBM Communications Server for Windows NT V5.0 Part Number 4231772..4231779.

Your Proof of Entitlement document from IBM will identify the feature purchased.

Warranty

IBM standard warranty of media. Warranty period 3 months (or the period required by local legislation, if greater).

Program Services

Central Service through mail or fax will be provided by IBM until March 28, 1999.

Additional fee support will be provided through the IBM Support Line and Country specific service offerings. Please contact IBM for further information on what is available in your Country.

This program will be subject to the terms of the IBM International Program License Agreement (IPLA) contained in the program package, and not to the Agreement for IBM Licensed Programs.

This Statement is complementary to the IBM IPLA contained in this package:

Program Name: IBM Communications Server for Windows NT Version 5.0

Program Number: 5639-B53

Service End Date: March 28, 1999

Part Number: 4231772...4321779

For program defect related problems, the following procedure for assistance in problem identification is applicable:

- Contact your remarketer or distributor or, alternatively
- Mail or fax the written problem description to IBM.

IBM will reply in writing with information about correction, bypass or restriction with the intent to make the program perform according to its specifications, or, if there are none, to its principles of operation.

Customer information needed when submitting a problem:

- Address and contact name
- Current maintenance/Corrective Service Diskette (CSD) level
- Problem Description (typed, not hand written)

Additional information on customer reported problems can be obtained from your remarketer/distributor or IBM.

Software Advantage for Workstations Agreement

The product(s) is/are eligible to the terms of the Software Advantage for Workstations Agreement (Standard Offering including Upgrade Protection).

Announcement Countries

All European, Middle Eastern and African Countries.

The data in this letter is subject to the disclaimer in Letter ZS90-0112, which is available from IBM on request.

Please note this is an international announcement letter. If applicable you should also refer to your local country complementary document to check for country specific information.

***** End of Document *****