



# IBM eNetwork Personal Communications Version 4.21 Emulators for Windows, Windows 95, Windows NT, and OS/2 Provide Enhanced Functions for OS/2

## Overview

The IBM Personal Communications family of emulators is enhanced for the OS/2® platform to include:

- Support for users migrating from Communications Manager/2 (CM/2) with:
  - Enhanced installation and configuration dialogs including migration of CM/2 configurations
  - Integration of the OS/2 Access Feature to provide advanced SNA support
  - Administrative tools such as trace services and subsystem management
- Telnet through a firewall
- Electronic Registration
- Session Level Encryption

IBM eNetwork Personal Communications is available in two convenient, easy-to-use packages:

- **IBM eNetwork Personal Communications Version 4.21 DOS, Windows®, Windows 95, Windows NT™, and OS/2** — provides 3270 and 5250 emulation and connections to S/390®, AS/400®, and S/3X systems.
- **IBM eNetwork Personal Communications AS/400 Version 4.21 Windows, Windows 95, Windows NT, and OS/2** — provides 5250 emulation and connections to AS/400 and S/3X systems.

Both packages provide VT emulation for ASCII hosts in Windows 95 and Windows NT.

eNetwork Personal Communications gives you GUI-based 5250 and 3270 terminal emulation capability, and a range of SNA-based client APIs. This product also lets you simultaneously

access and process information on AS/400, S/390, and, for Windows 95 and Windows NT, ASCII hosts, while providing a common look and feel across these environments.

With eNetwork Personal Communications AS/400, you can connect PCs with AS/400 or S/3X mid-range host computers and ASCII hosts. After the systems are connected, you can interact with IBM mid-range host computers using an impressive array of features, including an up-to-date GUI, 5250 terminal emulation, and data transfer support.

The versatile connectivity of these products gives new and established AS/400 and S/390 customers greater flexibility to expand LAN/WAN network capabilities, including support for the mobile workforce using asynchronous communications.

More information can be found on the IBM eNetwork Personal Communications Home Page at URL:

<http://www.software.ibm.com/enetwork/pcomm>

## Intended Customers

- For DOS/Windows, Windows 95, Windows NT, and OS/2 users who need 3270, 5250 support
- For OS/2 customers migrating from CM/2

## Key Prerequisites

DOS/Windows, Windows 95, Windows NT, or OS/2 Warp (Version 3.0, or later) operating system

## At a Glance

This comprehensive set of tools allows you to access applications and data that reside on either mid-range servers, or IBM enterprise servers (mainframes). The IBM Personal Communications OS/2 emulator is enhanced to include:

- Updated installation and configuration process to seamlessly integrate the OS/2 Access Feature provides advanced SNA connectivity.
- Telnet through a firewall allows connection only when the end user provides an ID and password.
- Electronic Registration allows users to be notified of any program updates provided by IBM.
- Internet/Intranet Hotspots allows any URL on the screen to be regarded as a hotspot.
- Session Level Encryption provides support for the IBM TSS Cryptographic adapter.

You can install an industry-leading solution for your preferred operating environment from the CD-ROM.

Current licensees of Personal Communications Version 4.2 can obtain the enhancements in Version 4.21 at no charge.

### For ordering, contact:

Your IBM representative, an IBM Business Partner, or IBM North America Sales Centers at

800-IBM-CALL

Reference: YE001

## Planned Availability Date

January 30, 1998

*This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.*

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## Description

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IBM eNetwork Personal Communications Version 4.21 offers numerous enhancements, many of them for users of CM/2 migrating to the Personal Communications family of products. New items include:

- **CM/2 Compatibility Features** — Allows the integrated installation of the OS/2 Access Feature to provide the base SNA and additional connectivities such as X.25 and ISDN. The configuration process will also include an option to access the existing Access Feature configuration panel which is based on the existing CM/2 configuration process.
- **Electronic Registration** — Allows a user to be notified of updates to the product by IBM.
- **Telnet through a firewall** — Enables a user to gain access through a firewall only with the use of a userid and password.
- **TCP62** — Provides a programmable API that simplifies configuration of AnyNet® LU6.2 support on TCP/IP. This function simplifies end-user tasks by eliminating SNA and AnyNet unique installation and configuration, making it possible to use LU6.2 applications in TCP/IP environments as if they were Sockets applications. The TCP62 function is included in the Personal Communications Access Feature for OS/2. Details are available at URL:

<http://www.networking.ibm.com/pcf/pcfcp62.html>

- **Session Level Encryption** — Supports the IBM TSS cryptographic adapter.
- **Internet/intranet hotspots** — Allows any URL that is displayed on the host screen (3270, 5250, or VT) to be regarded as a hotspot. Clicking on the hotspot launches your Web browser and connects you to the Web site specified by the URL.

Multiple Protocol Transport Services (MPTS) is included on the CD-ROM as a convenience for OS/2 users. Refer to Software Announcement 296-072, dated March 12, 1996, for details.

Current licensees of Personal Communications Version 4.2 can obtain the new enhancements in Version 4.21 at no charge. The enhanced CD-ROM will be available beginning February 15, 1998, via the IBM Personal Communications home page at URL:

<http://www.software.ibm.com/enetwork/pcomm>

The customer must certify on the form presented that they have a valid Proof of Entitlement (PoE) for IBM Personal Communications Version 4.2 and, upon request, must provide PoE to IBM. A customer request for the Version 4.21 CD-ROM cannot exceed the number of basic licenses installed for Personal Communications Version 4.2.

The process to obtain the updated release is:

- Customers access the Personal Communications home page and fill out the form (name, address, and phone number) and number of basic licenses installed for IBM Personal Communications Version 4.2 (and language).
- Customers certify that they are entitled to the Personal Communications Version 4.21 enhancement CD-ROM (no PoE required).
- The IBM Networking Channel Operations group in Raleigh will fulfill and ship the orders to customers worldwide.

**Packaging:** The CD-ROMs for eNetwork Personal Communications Version 4.21 provide all the features and functions previously included on CD-ROM versions of:

- Personal Communications AS/400 and 3270 Version 4.2 for DOS, Windows, Windows 95, Windows NT, and OS/2
- Personal Communications AS/400 Version 4.2 for Windows, Windows 95, Windows NT, and OS/2

The eNetwork Personal Communications CD-ROM provides an easy, convenient way to order and install the Personal Communications family of emulators for multiple operating system platforms.

Additionally, eNetwork Personal Communications provides a breadth (of programming interfaces) that allows other workstation applications to make use of applications residing on the host. These programming interfaces include:

- Emulator High-Level Language Application Programming Interface (EHLAPI)
- Dynamic Data Exchange (DDE)
- Server-Requester Programming Interface (SRPI)
- Personal Communications Application Programming Interface (PCSAPI)
- Common Programming Interface for Communications (CPI-C)
- Advanced Program-to-Program Communication (APPC)

The Personal Communications family of products is designed to provide customers with a state-of-the-art, comprehensive set of tools for accessing applications and data that reside on either mid-range servers, IBM enterprise servers (mainframes), or ASCII hosts. These products allow you to be more creative and more productive by masking the complexity of connecting to and using host applications.

In addition to spanning the major PC operating systems in use today, the Personal Communications family of products also supports enterprise server and mid-range host connectivity and provides a common look and feel across operating systems, enabling you to easily switch between operating systems and hosts. With the unequalled range of connectivity options offered by the Personal Communications family of products, you can have the same host interface in the office, at home, or even on the road.

Productivity benefits include:

- Minimized retraining costs
- Capability to easily switch between mid-range-based, enterprise server-based, or ASCII host applications
- Shared keyboard definitions

Other functions, such as enhanced editing, pop-up keypads, and macro support, also help increase productivity.

The Personal Communications family of products offers a variety of standard programming interfaces for client/server-based applications, including support for CPI-C and APPC applications. These APIs allow you to access and process information on peer workstations or mid-range or host computers. This access to applications on other systems allows developers to create a common design for applications relatively independent of the operating system platform. This helps them to develop applications quicker.

**Note:** Since the Version 4.11 CD-ROM, Personal Communications has provided the latest support for all operating systems on the same CD-ROM. The level of support can differ, depending on the operating system of interest. Version 4.21 contains enhanced functions for OS/2 compared to the Version 4.1 level OS/2 support provided with the Version 4.2 CD-ROM release. The Version 4.21 CD-ROM also contains support for DOS, Windows, Windows 95, and Windows NT which is unchanged from Version 4.2 CD-ROM. Where used, "Version 4.2 for OS/2" refers to the OS/2 support in the Version 4.21 release. For other operating systems, the contents of the Version 4.2 and 4.21 CD-ROM are equivalent. For Windows 3.x and DOS, where available, support is continued, but at a Version 4.1 level.

### **Year 2000**

These products are Year 2000 Ready. When used in accordance with its associated documentation, it is capable of correctly processing, providing, and/or receiving date data within and between the twentieth and twenty-first centuries, provided all other products (for example, software, hardware, and firmware) used with the product properly exchange accurate date data with it.

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## **Product Positioning**

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IBM eNetwork Personal Communications Version 4.2 for OS/2 adds more industry-leading terminal emulation software support for the OS/2 platform to add to the enhanced Windows NT and Windows 95 platform support previously announced.

A separate offering, IBM eNetwork Personal Communications AS/400 Version 4.2, includes the same support specialized to cover your 5250 emulation and AS/400 connectivity needs.

The IBM Personal Communications family of emulator products is IBM's response to the terminal-emulation needs of the PC marketplace. With these emulators, customers are provided 3270, 5250, and VT emulation support (Windows 95 and Windows NT) for PCs running DOS/Windows, Windows 95, Windows NT, and OS/2.

These emulators provide many powerful, yet simple-to-use features, such as macro support, keystroke record and playback, iconic toolbar, dynamic data exchange (DDE), and enhanced clipboard editing. They have the same look and feel across operating system environments, and across 3270 and 5250 emulation environments. Personal Communications also supports configuration, installation, and distribution (CID), to make management over a LAN easy.

### **Product Positioning with Client Access™ /400**

Client Access/400™ and Personal Communications AS/400 provide the natural migration path from PC Support/400, which has long been the standard software solution for most customers who want to link the AS/400 with PC workstations.

The existing PC Support/400 product contains DOS, Windows, and OS/2 solutions for 5250 emulation, shared folders, data transfer, virtual print, APPC APIs, submit remote command, data queues, and more. However, because of conventional memory constraints, new connectivity requirements, and a need for better integration into the Microsoft® Windows for Workgroups desktop environment, PC Support/400 no longer meets the needs of many users.

IBM understands that customer networking needs, multiplatform operating needs, and budgetary constraints do not always allow one solution to satisfy all users'

requirements. To address the needs of a diverse marketplace, IBM has developed two solutions — Client Access/400 and Personal Communications AS/400.

Client Access/400 is the recommended solution for users of OS/400® Version 3 Release 1 who require AS/400 connectivity for PCs running Windows, Windows 95, Windows NT, and OS/2. Client Access/400 brings together an impressive set of functions and clients into a single product. Client Access/400 offers a true Windows, Windows 95, and Windows NT client (eliminating the conventional memory constraints under V2Rx with PC Support/400), an OS/2 client that offers exploitation of the 32-bit operating system environment, and an array of features, including:

- E-mail enablement
  - Vendor independent mail (VIM)
  - Mail application programming interfaces (MAPI)
- Open Database Connectivity (ODBC)
- Graphical operations

Also included in Client Access/400 are IBM's Personal Communications 5250 emulators. IBM's Personal Communications 5250 is a state-of-the-art 5250 emulator that has a common look and feel in the Windows, Windows 95, Windows NT, and OS/2 environments.

Personal Communications AS/400 is the recommended choice for customers who:

- Currently have OS/400 Version 2 Release 2 or Version 2 Release 3 installed and do not plan an immediate upgrade to Version 3 Release 1.
- Do not require all the function provided by Client Access/400.
- Require a quick and easy way to connect remote (dial) workstations to the AS/400.

Personal Communications AS/400 (PC400) offers a state-of-the-art 5250 emulator based on the same technology as the emulator (Personal Communications 5250) found in Client Access/400. eNetwork Personal Communications AS/400 provides native solutions for workstations running Windows, Windows 95, Windows NT, and OS/2 operating systems.

PC400 provides 5250 display and printer emulation, and SNA APIs (APPC and CPI-C), Data Transfer support, AnyNet, Shared Folders support, Virtual Print (for Windows), and ODBC (for Windows, Windows 95, and Windows NT). PC400 provides a wide range of connection options including LAN (802.2 and TN5250), Async, Autosync, Twinaxial, SDLC (and even PCMCIA support for Twinax, Async, and LAN environments).

As users' requirements grow beyond what is provided by existing OS/400 V2Rx, the solution provided by PC400 for Windows, OS/2, Windows 95, or Windows NT allows you to migrate seamlessly to Version 3 Release 1 of OS/400. You can continue to use PC400 with Version 3 Release 1 until you migrate your users to Client Access/400.

For users who require both 3270 and 5250 emulation support for Windows, OS/2, Windows 95, or Windows NT, IBM offers a combined product called eNetwork Personal Communications, which supports both AS/400, 3270, and VT to provide the latest in PC-to-enterprise server (mainframe), PC-to-AS/400, or PC-to-ASCII host connectivity. The combined product provides all the support found in PC400, but adds the award-winning features of its related product Personal Communications/3270.

## **Product Positioning with IBM Host On-Demand**

The Internet reaches more and more users every day. In addition to the Internet, intranets are emerging as valuable internal assets for companies. IBM eNetwork Host On-Demand is an Internet-to-SNA interconnectivity solution that provides 3270, 5250, and VT application discovery and access through the WWW. Web users needing host applications, such as software applications, public catalogs, databases, and other resources, can use Host-on-Demand from inside their Java™-enabled Web browsers to access central computer data.

eNetwork Host On-Demand delivers network computing to the WWW by enabling Web-browser users to seamlessly access non-Internet-based 3270, 5250, and VT applications, content and services.

eNetwork Host On-Demand is recommended for Internet/intranet users who require ordinary emulation function. For full-function emulation, programming APIs, and a wider range of protocols or connectivity, Personal Communications is recommended.

More information can be found on the IBM Host On-Demand Home Page at URL:

<http://www.software.ibm.com/enetwork/ondemand>

## **Product Positioning with Other Emulators from IBM**

The PCOMM family of clients also provides a natural migration path for users who require a full-function emulator and are currently using Personal Communications AS/400 Twinaxial Entry Level, Personal Communications/3270 LUA Entry Level (part of Communications Server Version 4.0 for OS/2 Warp and Communications Server Version 5.0 for Windows NT), IBM 5250 Emulation for Windows Version 1.1, or one of the Telnet-3270 or Telnet-5250 products available with IBM TCP/IP for OS/2, and TCP/IP for DOS and Windows.

For users requiring strong TCP/IP application support or access to Lotus Notes® mail systems and the full-function host access (via emulation) provided by Personal Communications, the IBM eNetwork Communications Suite provides a cost-effective alternative to the purchase of multiple single-function products. More information can be found on the IBM eNetwork Communication Suite Home Page at URL:

<http://www.software.ibm.com/enetwork/commsuite>

The IBM Personal Communications family of emulation products offers price and functional advantages when compared to competitive emulation products. The enhanced functions and cross-family usability make these products very competitive in the host emulation and application programming environments.

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## **Reference Information**

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- Software Announcement 296-085, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for Windows and Personal Communications AS/400 and 3270 Version 4.1 for Windows)
- Software Announcement 296-087, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for OS/2 and Personal Communications AS/400 and 3270 Version 4.1 for OS/2)
- Software Announcement 297-349, dated September 9, 1997 (IBM eNetwork Personal Communications V4.2)
- Software Announcement 297-352, dated September 9, 1997 (IBM eNetwork Communications Server for OS/2 Warp V5.0.)

## **Trademarks**

Client Access and Client Access/400 are trademarks of International Business Machines Corporation in the United States or other countries or both.

OS/2, AS/400, S/390, AnyNet, and OS/400 are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Windows NT is a trademark of Microsoft Corporation.

Windows and Microsoft are registered trademarks of Microsoft Corporation.

Java is a trademark of Sun Microsystems, Inc.

Lotus Notes is a registered trademark of Lotus Development Corporation.

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# IBM US Announcement Supplemental Information

January 27, 1998

## The Personal Communications Family of Products

The IBM Personal Communications family of products included on the two CD-ROMs gives you everything available in the emulator market today, and more:

Feature/Function	OS/2®	DOS/ Windows	Windows 95	Windows NT™
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### 3270 Features

#### Attachments

Feature/Function	OS/2®	DOS/ Windows	Windows 95	Windows NT™
IEEE 802.2	X	X	X	X
3174 Peer Communication	X	X	X	X
IPX/SPX (NetWare for SAA®)	X	X	X	X
NWSAA Client & CS/NT Client				
APPC			X	X
LUA			X	X
TCP/IP (Telnet 3270)	X	X	X	X
SNA Distributed Function Terminal	X	X	X	X
Non-SNA DFT	X	X	X	X
Control Unit Terminal (CUT)	X	X		
SDLC (autodial-capable)	X	X	X	X
WAC (Wide Area Connector)	X		X	X
SNA over ASYNC	X	X	X	X
ASYNCH for IGN (Global Network™)	X	X	X	X
Home3270	X	X	X	X
Hayes Autosync	X	X	X	X
Hayes AutoSync II		X	X	
MS-SNA Server				
FMI		Windows®	X	X
WinAPPC		X	X	
WinLUA		X	X	
APPC3270 (LU2 over APPC)	X	Windows	X	X
AnyNet® —SNA over TCP/IP	X	Windows	X	X
3270 pass-through via AS/400®	X	Windows	X	X
AnyNet Sockets over SNA			X	X
ISDN, X.25	X	DOS (X.25)	X	X

#### Installation/Customization

Remote unattended install (CID)	X			
Silent Install			X	X
Unattended install			X	X
IEEE 802.2 driver (LLC2)				

Feature/Function	OS/2®	DOS/ Windows	Windows 95	Windows NT™
Microsoft® SMS support			X	X
Installation and configuration from LAN Server	X	X	X	X
Uninstall	X	X	X	X
Automatic DFT connection	X	X	X	X
Dynamic addition/deletion of sessions	X	X	X	X
Simultaneous sessions with different code pages and keyboard languages	X	X	X	X
Rule Line	X	X	X	X
26 display/printer emulation sessions	X	X	X	X
Model 2,3,4,5 display sessions	X	X	X	X
Menu bar customization	X	Windows	X	X
ASCII configuration files	X	X	X	X
<b>Network Management</b>				
SNA data compression (Emulator session data)	X	X	X	X
SNA data compression on LU6.2 sessions			X	X
Session Level Encryption	X			
VPD/EVPD,RTM,Alert	X	X	X	X
Command start/stop/query SNA node			X	X
<b>GUI</b>				
Graphical, customizable tool bar	X	Windows	X	X
Pop-up keypad and hot keys	X	Windows	X	X
3D Hotspots	X	Windows	X	X
Macro function	X	Windows	X	X
Graphical keyboard remapping	X	X	X	X
NLS key-caps support	X	X	X	X
122-key keyboard support	X	X		
DBCS unique keyboard support			X	X
Keystroke record by example	X	X	X	X
Customizable mouse	X	Windows	X	X
Drag-and-drop color remapping	X	Windows	X	X
Clear, crisp fonts, automatic	X	Windows	X	X
Sizing, fixed font size		*		
Display, view, window setup	X	Windows	X	X
Web browser launch from host	X		X	X

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Feature/Function	OS/2®	DOS/ Windows	Windows 95	Windows NT™
80- and 132-column support	X	X	X	X
Menu bar customization	X	X	X	X
ASCII configuration files	X	X	X	X
<b>GUI</b>				
Graphical, customizable tool bar	X	X	X	X
Pop-up keypad and hot keys	X	X	X	X
3D Hotspots	X	X	X	X
Macro function	X	X	X	X
Graphical keyboard remapping	X	X	X	X
-NLS key-caps support	X	X	X	X
-122-key keyboard support	X	X		
-DBCS unique keyboard support			X	X
Keystroke record by example	X	X	X	X
Customizable mouse	X	Windows	X	X
Drag-and-drop color remapping	X	Windows	X	X
Clear, crisp fonts, automatic sizing, fixed font size	X	Windows	X	X
Display, view, window setup	X	Windows	X	X
Web browser launch from host	X		X	X
<b>Versatile Edit Functions</b>				
Undo, cut, copy, copy append, paste, paste next, clear, copy link, unmark, select all	X	Windows	X	X
Clipboard viewer access	X	Windows	X	X
Intelligent spreadsheet support	X	Windows	X	X
<b>File Transfer</b>				
Multiple file and session transfers	X	Windows	X	X
<b>Programming Interfaces</b>				
EHLLAPI, DDE, PCSAPI, CPI-C, APPC Host Access Class Library	X	X	X	X
DOS EHLLAPI	X	X	X	X
Lotus scripting			X	X
Visual Basic scripting			X	X
REXX EHLLAPI support	X		X	X
TCP62	X		X	X
<b>Additional Features</b>				
Automation and scripting utility (CMMOUSE)	X	X	X	X
LAN device drivers	X	X	X	X
Administration tools	X	X	X	X

Feature/Function	OS/2®	DOS/ Windows	Windows 95	Windows NT™
Accessibility for handicapped users	X	X	X	X
ActiveX/OLE support			X	X
Information Bundler for PD like CMPD			X	X
Microsoft Backoffice certified			X	X
<b>Client Application Support</b>				
File Transfer for AS/400	X	X	X	X
Virtual Print		X		
PC Organizer® and Text Assist	X	X	X	X
Enhanced non-Programmable Terminal User Interface (ENPTUI)	X	X	X	X
AS/400 Network Drives (Shared Folders)	X	X	X	X
Data Transfer (SQL file transfer)	X	X	X	X
Open database connectivity (ODBC) and database access		X	X	X
<b>Host Print</b>				
3812 printer emulation	X	X	X	X
Host print transform	X	X	X	X
ASCII transparent	X	X	X	X
Printer definition table (PDT)	X	X	X	X
<b>Advanced Networking Support</b>				
APPN End node	X		X	X
APPN LEN node		X		
HPR	X		X	X
DLUR	X		X	X

### VT52, VT100, VT200 Emulation

Feature/Function			
Async and TCP/IP			X
ASCII —host file transfer			X
XModem			X
XModem1K			X
YModem			X
YModemG			X

\* No auto-sizing for DOS

### Publications

The following publications can be ordered from IBM immediately. To order, contact your IBM representative or call 800-426-7282.

Other publications for these products are provided on the CD-ROM and are applicable to Version 4.2 and Version 4.21.

Title	Order Number
<b>OS/2 Personal Communications Publications</b>	
Personal Communications AS/400 and 3270 Version 4.2 for OS/2 Quick Beginnings	SC31-8258
Version 4.2 for OS/2 Reference	SC31-8259
Version 4.2 for OS/2 Programming	SC31-8478

Title	Order Number
<b>DOS and Windows Personal Communications Publications</b>	
APPC Networking Services for Windows Getting Started	SC31-8124
IBM AnyNet Guide to SNA over TCP/IP for Windows	GV40-0113

**Displayable Softcopy Publications:** The following product manuals are offered in displayable softcopy form:

Title	Order Number
• eNetwork Personal Communications V4.2 for Windows 95 and Windows NT Quick Beginnings	SC31-8124
• eNetwork Personal Communications V4.2 for OS/2 Quick Beginnings	GV40-0113
• eNetwork Personal Communications V4.2 for Windows 95 and Windows NT Reference	
• eNetwork Personal Communications V4.2 for OS/2 Reference	
• eNetwork Personal Communications V4.2 for Windows 95, Windows NT, and OS/2 Emulator Programming	

All unlicensed manuals are included. The displayable manuals are part of the basic machine-readable material. The files are shipped on the same media type as the basic machine-readable material.

The publications listed for Personal Communications 4.2 for OS/2 or Windows are not available in displayable softcopy form for Japanese, Hangeul, Traditional Chinese, or Simplified Chinese.

The displayable manuals for IBM Personal Communications can be used with the BookManager® READ licensed programs. The displayable manuals for IBM Personal Communications OS/2 versions can also be used with the included Information Notebook viewer. Terms and conditions for use of the machine-readable files are shipped with the files.

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## Technical Information

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### Specified Operating Environment

**Hardware Requirements:** For installation, a PC capable of reading a CD-ROM is required. Other prerequisites depend on the operating system. For a list of prerequisites, refer to the applicable announcement:

- Software Announcement 296-085, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for Windows and Personal Communications AS/400 and 3270 Version 4.1 for Windows)
- Software Announcement 296-087, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for OS/2 and Personal Communications AS/400 and 3270 Version 4.1 for OS/2)

- Software Announcement 297-349, dated September 9, 1997 (IBM eNetwork Personal Communications V4.2)
- Software Announcement 297-352, dated September 9, 1997 (IBM eNetwork Communications Server for OS/2 Warp V5.0)

### Requirements for Personal Communications for OS/2 Warp

**System Unit:** IBM and IBM-compatible workstations with a 486, or higher, microprocessor, memory and fixed-disk storage capacity to support OS/2 Warp V3.0 or higher, as applicable. If Personal Communications Version 4.2 for OS/2, Windows NT and Windows 95 or Personal Communications AS/400 Version 4.2 for OS/2, Windows NT and Windows 95 is to be locally installed, the workstation must also be capable of reading a CD-ROM.

#### Keyboard

- Enhanced keyboard (101-key, 102-key, 104-key, or 122-key)
- 5576-001/002/003/A01/B01/B05 (Japanese)

**Monitor:** Refer to the documentation provided with your operating system.

**Video Adapter:** Refer to the documentation provided with your operating system.

#### RAM and Fixed Disk Space

- Minimum of 16 MB RAM
- 15 MB to 42 MB of fixed disk space depending on the installation options selected

**Communication Adapters:** For OS/2 V4.2, refer to the referenced OS/2 announcement for the list of supported adapters.

LAN and WAN communication adapters that have device drivers written to the network driver interface specification (NDIS 3.1). MAC drivers for supported adapters are generally be available from the adapter vendor or are shipped with the adapters. Support for a number of communications adapters has been included with the operating system.

These additional adapters are supported by Personal Communications Version 4.2 for Windows NT and Windows 95:

#### For non-Micro Channel® Machines

- IBM SDLC Communications Adapter
- IBM Multiprotocol Adapter
- IBM PC 3278/79 Emulation Adapter (3270 only)
- Advanced IBM PC 3278/79 Emulation Adapter (3270 only)
- IBM Wide Area Connector (WAC)
- IBM Twinax and some non-IBM Twinax adapters

Support for the following new Twinax adapters has been added:

- IBM 5250 Express ISA Adapter
- IBM 5250 Express PC Card
- IBM 5250 Express PCI Adapter

#### For Micro Channel Machines

- IBM Multiprotocol Adapter/A
- IBM 3270 Connection (3270 only)
- IBM Asynchronous/SDLC V.32 Modem/A (MPA Card with modem)
- IBM Wide Area Connector (WAC)
- IBM Twinax and some non-IBM Twinax adapters are supported



- IBM 3270 Emulation Credit Card Adapter (3270 only)
- IBM Twinax and some non-IBM Twinax adapters are supported
- IBM SDLC PCMCIA Adapter (Japan)
- IBM SDLC PCMCIA Modem Card (Japan)

Any OEM adapter that implements the IBM OEM Deep Adapter API is supported.

**Printers**

- GDI print mode: Any printers which are supported by the operating system through the GDI.
- PDT (raw data) print mode for the following printers:

The following Printer Definition Files (PDF) are supported for both 3270 and 5250 sessions. A PDF is compiled to create a Printer Definition Table (PDT).

Printer Name/Model	File Name
IBM 3812 Page Printer, Model 2	IBM3812.PDF
IBM 3816 Pageprinter II	IBM3816.PDF
IBM 3812 Pageprinter Model 2	PRN3812.PDF
IBM 3816 Pageprinter II	
IBM 3852 Color Printer	IBM38521.PDF
IBM 3852 Color Printer	PRN38521.PDF
IBM 3852 Color Jetprinter, Model 2	IBM38522.PDF
IBM 3852 Color Jetprinter, Model 2	PRN38522.PDF
IBM 4019 LaserPrinter	IBM4019.PDF
IBM 4019 LaserPrinter E	
IBM 4029 Laser Printer	
IBM 4019 LaserPrinter	PRN4019.PDF
IBM 4019 LaserPrinter E	
IBM 4029 Laser Printer	
IBM 4072 ExecJet® Printer	IBM4072.PDF
IBM 4072 ExecJet Printer	PRN4072.PDF
IBM 4201 Proprinter®	IBM4201.PDF
IBM 4201 Proprinter II	
IBM 4201 Proprinter III, Model 3	
IBM 2380 Personal Printer Series 2	
IBM 4202 Proprinter XL, Model 1	IBM4202.PDF
IBM 4202 Proprinter XL, Model 2	
IBM 4202 Proprinter III XL, Model 2	
IBM 4202 Proprinter III XL, Model 3	
IBM 4216 Personal Pageprinter	
IBM 2381 Personal Printer Series 2	
IBM 4201 Proprinter	PRN4202.PDF
IBM 4201 Proprinter II	
IBM 4201 Proprinter III, Model 3	
IBM 4202 Proprinter XL, Model 1	
IBM 4202 Proprinter XL, Model 2	
IBM 4202 Proprinter III XL, Model 2	
IBM 4202 Proprinter III XL, Model 3	
IBM 4207 Proprinter X24	
IBM 4207 Proprinter X24E	
IBM 4208 Proprinter XL24	
IBM 4208 Proprinter XL24E	
IBM 4216 Personal Pageprinter	
IBM 2380, 2381, 2390, 2391 printers	
IBM 4207 Proprinter X24	IBM4207.PDF
IBM 4207 Proprinter X24E	
IBM 2390 Personal Printer Series 2	
IBM 4208 Proprinter XL24	IBM4208.PDF
IBM 4208 Proprinter XL24E	
IBM 2391 Personal Printer Series 2	
IBM 5152 Graphics Printer, Model 2	IBM5152.PDF
IBM 5152 Graphics Printer, Model 2	PRN5152.PDF
IBM 5182 Color Printer	IBM5182.PDF
IBM 5182 Color Printer	PRN5182.PDF
IBM 5201 Quietwriter® Printer, Model 1	IBM5201.PDF
IBM 5201 Quietwriter Printer, Model 2	
IBM 5202 Quietwriter III	IBM5202.PDF
IBM 5204 Quietwriter Printer	
IBM 5201 Quietwriter Printer, Model 1	PRN5202.PDF
IBM 5201 Quietwriter Printer, Model 2	

Printer Name/Model	File Name
IBM 5202 Quietwriter III	
IBM 5204 Quietwriter Printer	
IBM 5216 Wheelprinter	IBM5216.PDF
IBM 5216 Wheelprinter	PRN5216.PDF
IBM 5223 Wheelprinter E	IBM5223.PDF
Epson Action Laser2 LQ2500 mode	ACTLZR2.PDF
Canon BJ300 CAPSL mode	BJ300.PDF
Canon LBP4 ISO mode	LBP4.PDF
Epson LQ870/1170	LQ870.PDF
HP LaserJet II Series	HPLJII.PDF

The following PDFs are provided for 5250 sessions only:

Printer Name/Model	File Name
Compaq PageMarq 15 HP Mode	CPQPM20.PDF
Compaq PageMarq 20 HP Mode	
Epson AP2250	EAP2250.PDF
Epson AP3250	EAP3250.PDF
Epson AP5000	EAP5500.PDF
Epson AP5500	
Epson FX1170	EFX1170.PDF
Epson DFX5000	EFX5000.PDF
Epson DFX8000	
Epson FX850	EFX850.PDF
Epson LQ570	ELQ1070.PDF
Epson LQ1070	
Epson LQ2550	ELQ2550.PDF
Epson LQ510	ELQ510.PDF
Epson LQ860	ELQ860.PDF
Epson LX810	ELX810.PDF
Epson EPL7000 HP Mode	EPLPCL4.PDF
Epson EPL8000 HP Mode	EPLPCL5.PDF
Epson SQ1170	ESQ1170.PDF
HP DeskJet 500	HPDSKJT.PDF
HP DeskJet 550C	HPDJ550C.PDF
HP LaserJet III	HPLJIII.PDF
HP LaserJet IIIP	
HP LaserJet IIISi	
HP LaserJet IIID	HPLJIIID.PDF
IBM 4039 LaserPrinter HP Mode	
HP LaserJet 4	HPLJ4.PDF
IBM 4070 IJ	IBM4070.PDF
IBM 4070 IJ Epson Mode	IBM4070E.PDF
IBM 4212 Proprinter 24P	IBM4212.PDF
IBM 4226-302 Printer	IBM4226.PDF
NEC P6200 Pinwriter	NEC6300.PDF
NEC P6300 Pinwriter	
Panasonic KX-P4410 HP Mode	PANLBP4.PDF
Panasonic KX-P4420 HP Mode	
Panasonic KX-P4450i HP Mode	
Panasonic KX-P4430 HP Mode	PANLBP5.PDF
Panasonic KX-P4451 HP Mode	
Panasonic KX-P1123 Epson Mode	PAN1123.PDF
Panasonic KX-P1124 Epson Mode	PAN1124.PDF
Panasonic KX-P1624 Epson Mode	
Panasonic KX-P1180 Epson Mode	PAN1180.PDF
Panasonic KX-P1180i Epson Mode	
Panasonic KX-P1191 Epson Mode	
Panasonic KX-P1695 Epson Mode	PAN1695.PDF
Panasonic KX-P2123 Epson Mode	PAN2123.PDF
Panasonic KX-P2124 Epson Mode	PAN2124.PDF
Panasonic KX-P2180 Epson Mode	PAN2180.PDF
Panasonic KX-P1124i Epson Mode	PAN2624.PDF
Panasonic KX-P1654 Epson Mode	
Panasonic KX-P2624 Epson Mode	

**Modems**

For OS/2 V4.2, refer to the referenced CS/2 announcement for the list of supported adapters.

For Windows NT 3.51, Personal Communications has its own list of modems and does not rely on operating system-provided modem support.

For Windows 95 and Windows NT 4.0, Personal Communications uses modems configured through the Windows TAPI, except for Hayes AutoSync, for which it uses its own list of modems.

Personal Communications for Windows 95 and Windows NT also supports SDLC modems (synchronous V.25bis modems) attached to SDLC, multiprotocol, or WAC adapters.

### Software Requirements

- OS/2 Warp, Version 3, or later
- Windows 95
- Windows NT 3.51
- Windows NT 4.0
- Novell NetWare for SAA client (optional)
- Microsoft SNA Server client (optional)

Personal Communications communicates with the following types of server or gateway:

- Communication Server for OS/2 Warp
- Communication Server for NT
- Novell NetWare for SAA Version 2.0, or later (3270 and 5250) (SNA)
- Microsoft SNA Server

To communicate with an AS/400 system, Personal Communications requires AS/400 LPPs, depending upon your system configuration:

- OS/400® Version 2 Release 2.0, or later, (5738-SS1, 5763-SS1, or 5716-SS1)
- OS/400 Version 2 Release 3.0, or later, is required for ENPTUI or Host Print Transform (5738-SS1, 5763-SS1, or 5716-SS1)
- OS/400 Version 3 Release 6.0, or later, is required for 132 column support
- For Text Assist features, cumulative PTF C3285220 with PTF SF14687 for Version 2 Release 2, PTF SF14495 for Version 2 Release 3.

Optional (for 3270) Licensed programs on System/390® host computers for file transfer:

- For MVS®/TSO — IBM 3270 PC File Transfer Program Release 1.1.1 (5665-311)
- For VM — IBM 3270 PC File Transfer Program Release 1.1.1 (5664-281)
- For CICS® — IBM CICS to 3270PC File Transfer Program Release 1 (5798-DQH)
- For VSE — VSE/SP™ Version 3 (5750-AAV), VSE/SP Version 4 (5750-ABF), or VSE/ESA™ (5750-ACD). (VSE/SP and VSE/ESA have no prerequisite programming requirements for file transfer)

System/390 host computers communicating SNA with Personal Communications Version 4.2 for Windows NT and Windows 95 require the following:

For the MVS environment:

- ACF/VTAM® Version 3, or later, or ACF/VTAM® Version 3 Release 4.2 for Dynamic Definition of Dependent LUs and Data Compression.
  - ACF/VTAM V3 for MVS/XA™ (5665-289)
  - ACF/VTAM V3 for MVS/370 (5665-313)
  - ACF/VTAM V3 for MVS/ESA™ (5685-085)
  - ACF/VTAM V4R2 for MVS/ESA (5695-117) for APPC3270 & DLUR
  - ACF/VTAM V4R3 for MVS/ESA (5695-117) for HPR

- ACF/NCP Version 4 Release 3.1 (5668-854) for token-ring connection
- ACF/NCP Version 6 Release 2 (5688-231) for data compression of XRF sessions

For the VM environment:

- ACF/VTAM Version 3, or later, or ACF/VTAM Version 3 Release 4.0 for dynamic definition of dependent LUs.
  - ACF/VTAM V3 for VM/ESA® (5684-095)
  - ACF/VTAM V4R2 for VM/ESA (5654-010) for APPC3270 & DLUR
- ACF/VTAM Version 3 Release 4.1 for VM/SP and VM/ESA (5684-095) for data compression
- ACF/NCP Version 4 Release 2 (5668-854), or later level release for token-ring connection

For the VSE environment:

- ACF/NCP Version 4 Release 1.0 (5668-854), or later, for token-ring connection
- ACF/VTAM Version 3 Release 4 for VSE/ESA (5666-363) for dynamic definition of dependent LUs
- ACF/VTAM V4R2 for VSE/ESA (5686-065) for APPC3270 and DLUR

Refer to the individual host operating system information for the correct level of release that supports these ACF/VTAM and ACF/NCP versions.

Personal Communications Version 4.2 for OS/2, Windows NT and Windows 95 is datastream-compatible with 3270 base datastream alphanumeric application environments that support the IBM 3278 Model 2, 3, 4, or 5 or the IBM 3279 Model 2 or 3 with certain restrictions. Refer to the **Limitations** section.

**Compatibility:** Compatibility information depends on the operating system that you use. For detailed information, refer to the applicable Software Announcement:

- Software Announcement 296-085, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for Windows and Personal Communications AS/400 and 3270 Version 4.1 for Windows)
- Software Announcement 296-087, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for OS/2 and Personal Communications AS/400 and 3270 Version 4.1 for OS/2)
- Software Announcement 297-349, dated September 9, 1997 (IBM eNetwork Personal Communications V4.2)
- Software Announcement 297-352, dated September 9, 1997 (IBM eNetwork Communications Server for OS/2 Warp V5.0.)

Personal Communications Version 4.2 for Windows NT and Windows 95 and Personal Communications AS/400 Version 4.2 for Windows NT and Windows 95 have been tested for compatibility with the following programs; however, compatibility should not be assumed for all environments (host connections and emulation functions provided by Personal Communications Version 4.2 for Windows NT and Windows 95 and Personal Communications AS/400 Version 4.2 for Windows NT and Windows 95). Users of Personal Communications Version 4.2 for Windows NT and Windows 95 and Personal Communications AS/400 Version 4.2 for Windows NT and Windows 95 must verify the availability of sufficient application memory space based upon the host connection, emulation functions configured, and other Windows NT requirements and system extensions selected.

- Operating Systems:
  - OS/2 Warp V3.0, or later
  - Windows 95
  - Windows NT 3.51
  - Windows NT 4.0
- Microsoft SNA Server Windows NT Client and Windows 95 Client
- Netware for SAA client
- Netware Version 3.12J (Japanese)

**Limitations:** Certain limitations may apply. For detailed information, refer to the applicable product announcement:

- Software Announcement 296-085, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for Windows and Personal Communications AS/400 and 3270 Version 4.1 for Windows)
- Software Announcement 296-087, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for OS/2 and Personal Communications AS/400 and 3270 Version 4.1 for OS/2)
- Software Announcement 297-349, dated September 9, 1997 (IBM eNetwork Personal Communications V4.2)
- Software Announcement 297-352, dated September 9, 1997 (IBM eNetwork Communications Server for OS/2 Warp V5.0.)

These limitations to Personal Communications for OS/2, Windows 95, and Windows NT apply to all language versions:

- Control Unit Terminal (CUT) is not supported (Windows 95 and Windows NT).
- Printer Definition Tables (PDT) are supported by Personal Communications Version 4.2 for Windows NT and Windows 95 and Personal Communications AS/400 Version 4.2 for Windows NT and Windows 95.

Unless PDTs are used, the SCS control codes may not always be handled correctly, depending on the printer drivers and fonts being used.

Personal Communications Version 4.2 for Windows NT and Windows 95 and Personal Communications AS/400 Version 4.2 for Windows NT and Windows 95 depend on the operating system printer device drivers to print data when the print driver is used. Some printer device drivers do not support all characters that are used. Such printer device drivers print an unsupported character as the most similar character or as the default character of the printer driver (for example "-").

- Data Transfer does not support multiple invocations at a time
- AS/400 Network Drives (Shared Folders) are not supported for Windows NT 3.51
- Open Database Connectivity (ODBC) — AS/400 and MVS (Windows 95 and Windows NT)
  - Supports the APPC protocol only. By configuring AnyNet SNA over IP, TCP/IP networks are also supported.
  - The ODBC drivers provide select, insert, update, and delete access to data. However, the Database Access utility provides select access to data only.
- Commonly used 3274 Control Unit features and capabilities are supported; however, the following are not supported (3270 only):

- APL characters are not copied to the clipboard by CUT, COPY, or COPY LINK functions as APL characters. They are copied to the clipboard as ANSI characters that have the same code points.
- Configuration C features:
  - Structured field and attribute processing (SFAP) (EBCDIC only)
  - Decompression of PS load data
  - Attachment of local or remote R-Loop
  - Explicit partitions
  - X.21 communication protocol
- Only a subset of Entry Assist functions are supported
- All IBM 3278 keyboard types except the IBM 3278 Typewriter keyboard
- Certain IBM 3278 keys
  - Extended attribute selection keys: Color, highlighting, programmed symbols
  - Indent
- Magnetic stripe reader
- Certain IBM 3287 Printer capabilities:
  - Mono/dual case switch/light
  - Test switch/light
  - Reset switch
  - Setup switch
  - Index switch
  - Control unit signal light
- Security keylock
- Selector light pen
- Host direct printing with an APPC3270 connection
- Coexistence of 3270 PCMCIA adapter and 3270 AT® bus communication adapter, or IBM 3270 connection adapter.
- Change of printer control parameters when using a PDT file
- In addition to the above restrictions, when using DFT communications attachment, the following features and capabilities of the IBM 3274 or IBM 3174 Control Units are not supported:
  - Programmed symbols (PS) on attached workstations
  - Attachment to port 0 of the 3274
  - Database operations
  - 3270 Diagnostic Reset Dump
  - Patch facility
- Home3270 and IBM Global Network attachments do not support the following:
  - Graphics
  - Passthru Print
  - SRPI
- Async IIN™ support is limited to the following:
  - 8-bit no parity
  - No compression
- The following attachments do not support multiple physical adapters or two RS232-C ports:
  - Home3270
  - IBM Global Network
- Line speed up to 115.2 Kbps, depending on PC and configuration:
  - SDLC, Async IIN and SNA-over-Async
  - Home3270
  - IBM Global Network line speed is up to 115.2 Kbps

- TCP/IP connectivity has the following restrictions:
  - SDDL (self-defining dependent LUs) and SNA session-level compression and decompression are not available.
  - The maximum packet size must be less than 8,000 bytes for the file transfer.
- For IPX/SPX connectivity, SDDL (self-defining dependent LUs) and SNA session-level compression and decompression are not available.
- APPC and CPI-C APIs are not supported for IPX/SPX
- AnyNet Sockets over SNA is not supported for Windows 95
- Host Access Class Library: (Windows 95 and Windows NT)
  - Structured fields are not supported.
  - VBScript is not supported for Windows NT 3.51.
- EHLLAPI:
  - Storage manage function is not supported.
  - CONPHYS is not supported.
- Subsystem Local Copy is not supported for the IBM 3278 and IBM 3279 Display Stations and the IBM 3287 Printer.
- The DDE API does not support code-page conversion. Applications must use the CSV API for code-page conversion.

**Performance Considerations:** Response time in a terminal environment depends upon a variety of system unit and data-communication load factors. These include the types and speeds of system units processor, number and types of communication adapters installed, the line speed of the communication service, and the amount of processing done by the applications utilizing Personal Communications Version 4.2 for OS/2, Windows NT and Windows 95 or Personal Communications AS/400 Version 4.2 for OS/2, Windows NT and Windows 95.

### Planning Information

The Personal Communications Version 4.2 for Windows 95 and Windows NT and Personal Communications AS/400 Version 4.2 for Windows 95 and Windows NT can be set up to work in a server/client relationship. The approach used is to store the least amount of code necessary on the client workstation and to store the major portion of the run-time code and configuration information on a LAN file server. You can then use your workstations for more applications.

**Customer Responsibilities:** The customer must provide the minimum hardware and software environments in which the specific IBM Personal Communications product will operate. It is recommended that an administrator be assigned to customize the program for end users or to provide the end user with host information required to configure and install the selected product. For more detailed information on customer responsibilities, refer to the applicable product announcement:

- Software Announcement 296-085, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for Windows and Personal Communications AS/400 and 3270 Version 4.1 for Windows)
- Software Announcement 296-087, dated March 19, 1996 (Personal Communications AS/400 Version 4.1 for OS/2 and Personal Communications AS/400 and 3270 Version 4.1 for OS/2)

- Software Announcement 297-349, dated September 9, 1997 (IBM eNetwork Personal Communications V4.2)
- Software Announcement 297-352, dated September 9, 1997 (IBM eNetwork Communications Server for OS/2 Warp V5.0.)

**Packaging:** IBM eNetwork Personal Communications Version 4.21 and IBM eNetwork Personal Communications AS/400 Version 4.21 program packages are each distributed with the following materials:

- Proof of Entitlement
- License Information
- International Program License Agreement (IPLA)
- IPLA Pointer Sheet — Generic
- Guide to Installation
- Host On-Demand brochure
- One CD-ROM

### Security, Auditability, and Control

IBM Personal Communications products run under the control of the operating system for which they were designed and are subject to the controls that the operating system provides.

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

### Ordering Information

The charge structure for Personal Communications Version 4.21 parallels that of previous versions but with some changes in terms. For orders of the base program package, additional "install" part numbers (formerly called "use packs") are provided for copy and use under the terms of the licence agreement.

Personal Communications also participates in the Software Advantage for Workstations program. Upgrade Protection for a One-Time Charge offered with Version 4.11 and Version 4.2 continues with Version 4.21.

Special upgrade prices are available for previous users and users of other qualifying programs including a price for upgrades for additional install authorizations up to the quantity of licences previously owned.

The program package upgrade option allows upgrade to IBM eNetwork Personal Communications Version 4.21 from any of the following:

- IBM 3270 or 5250 emulator programs
  - Communications Manager/2 V1.x
  - Communications Manager/2 V1.x DF
  - OS/2 EE, ES, ES+DB — all versions
  - Personal Communications/3270 for DOS/Windows — all versions
  - Personal Communications/3270 V4.0 for OS/2
  - Personal Communications/3270 V4.0 for OS/2 — IEEE 802.2 Entry Level
  - Personal Communications/3270 V4.0 for OS/2 — LUA Entry Level
  - Personal Communications AS/400 and 3270 V4.x — all platforms
  - 3270 PC any version
  - 5250 PC any version
  - 5250 Workstation Feature any version
  - Personal Communication/5250-Windows any version
  - Personal Communication/5250-OS2 any version
  - Any other IBM 3270 or 5250 full function emulator program for OS/2 or Windows
  - AS/400 Client Access Family

- IBM APPC Networking Services for Windows Version 1.0
- Any non-IBM 3270 or 5250 full function emulator programs including, but not limited to
  - EXTRA!
  - Rumba
  - IRMA Workstation
  - Rally
  - Rumba for AS/400
  - IRMA/400
  - CGS

The program package upgrade option also allows upgrade to IBM eNetwork Personal Communications AS/400 Version 4.21 from any of the following

- IBM 5250 emulator programs
  - Communications Manager/2 V1.x
  - Communications Manager/2 V1.x DF
  - OS/2 EE, ES, ES+DB — all versions
  - Personal Communications AS/400 and 3270 V4.x — all platforms
  - Personal Communications AS/400 V4.x — all platforms
  - Client Access™/400 — all versions
  - Any other IBM 5250 full function emulator program for OS/2 or Windows
  - AS/400 Client Access Family
- IBM APPC Networking Services for Windows Version 1.0
- Any non-IBM 5250 full function emulator programs including, but not limited to:
  - Rally
  - Rumba for AS/400
  - IRMA/400
  - Chori

Description	Order Type	Feature Number	Part Number
Personal Communications, V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 with DES Program Package English	5801-AAR	8592	4074548
1 Installs	5802-AAR	5199	4074525
5 Installs	5802-AAR	5200	4074526
10 Installs	5802-AAR	5201	4074527
50 Installs	5802-AAR	5202	4074528
Personal Communications, AS/400 V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 Program Package English	5801-AAR	8536	4107063
1 Installs	5802-AAR	5207	4073425
5 Installs	5802-AAR	5208	4073426
10 Installs	5802-AAR	5209	4073427
50 Installs	5802-AAR	5210	4073428

Description	Order Type	Feature Number	Part Number
<b>Upgrades</b>			
Personal Communications, V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 with DES Program Package Upgrade English	5803-AAR	4489	4074597
1 Installs for Upgrade	5804-AAR	6240	4074530
Personal Communications, AS/400 V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 Program Package Upgrade English	5803-AAR	4437	4110645
1 Installs for Upgrade	5804-AAR	6251	4073352
<b>Software Advantage</b>			
Personal Communications, V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 1 Install for Software Advantage	5802-AAR		4074529
Personal Communications, AS/400 V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 1 Install for Software Advantage	5802-AAR		4073350
Personal Communications, V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 with DES Media Pack for Software Advantage			4074545
Personal Communications, AS/400 V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 Media Pack for Software Advantage			4107041
<b>Software Advantage Upgrades</b>			
Personal Communications, V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 1 Install for Upgrade and Software Advantage	5804-AAR		4074533
Personal Communications, AS/400 V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 1 Install for Upgrade and Software Advantage	5804-AAR		4073441
<b>Software Advantage Upgrade Protection</b>			
Upgrade Protection for Personal Communications, V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 OTC*	5809-AAR		64H0894
Upgrade Protection for Personal Communications, AS/400 V4.21 for DOS/Windows, Windows 95, Windows NT, and OS/2 OTC	5809-AAR		64H0896

\* One-Time Charge

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## Terms and Conditions

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**Licensing:** IPLA. Proofs of Entitlement (PoEs) are required for all authorized use. **Program Unique Terms:** The Program is licensed only for use by a single computer at a time. You may allow only one computer to access and use the Program (or maintain an active session within the Program) at any point in time. You agree that use of the Program by one computer must end before another computer may access and begin using the Program, unless each computer has purchased a license to the Program.

**Limited Warranty:** Yes

**Program Services:** Depending on the operating system, are available until:

- OS/2 (V4.2): January 31, 2001\*
- NT/Win95 (V4.2): December 31, 2000
- Win3.x (V4.1): March 31, 1998
- DOS (V4.1): March 31, 1998

\* MPTS is provided "as is." Program Services for this product do not apply to MPTS.

**Money-Back Guarantee:** 30-day, money-back guarantee for program packages

**Copy and Use on Home/Portable Computer:** Yes

**Support Line:** Personal Systems

**Complimentary Introductory Support:** Not available for OS/2 platform

**Upgrades:** Customers may acquire upgrades up to the currently authorized level of use of the qualifying programs.

**Volume Orders:** Yes, contact your IBM representative

**Software Advantage applies:** Yes

**SW Advantage Upgrade Protection applies:** Yes

**AIX®/UNIX® Upgrade Protection applies:** No

**Entitled Upgrade for Current SW Advantage Upgrade Protection Licensees:** No. Refer to the **Description** section for instructions to obtain Version 4.21 at no charge.

**Entitled Upgrade for Current AIX/UNIX Upgrade Protection Licensees:** No

**Variable Charges Apply:** No

**Educational Allowance Available:** No

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## Charges

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Charges for Personal Communications V4.2 for DOS/Windows, Windows 95, Windows NT, and OS/2 and Personal Communications AS/400 V4.2 for Windows, Windows 95, Windows NT, and OS/2 apply to V4.21 and are unaffected by this announcement.

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## Call Now to Order

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To order, contact the IBM North America Sales Centers, your local IBM representative, or your IBM Business Partner.

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P.O. Box 16848  
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Reference: YE001

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**Note:** Shipments will begin after the planned availability date.

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