IBM ®

IBM eNetwork Communications Server for AIX, Version 5.0 Provides More Cost-Effective Network Computing Solutions

Overview

IBM eNetwork Communications Server for AIX® is part of IBM's eNetwork Software family of communications servers. These servers provide enterprise-class universal connectivity and information access for cost-effective network computing.

The eNetwork Communications Server for AIX will meet your requirements for interconnecting 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 used in each system. Communications Server provides a powerful multiprotocol, full-function gateway to clients on SNA and TCP/IP networks, plus support for a broad range of industry-standard networking protocols. The Communications Server will help you get users communicating with each other in networks of all sizes, from small workgroups to large corporate headquarters.

Functional characteristics to support business needs include:

- Integrated TN3720E Server support
- APPC over TCP/IP, and Sockets over SNA network communications
- Advanced Peer-to-Peer Networking® (APPN®) network node and end node support including high performance routing (HPR) and dependent LU requester (DLUR)
- Rich set of APIs to develop applications for distributed computing, including eNetwork

Host Access Class Library (Host Access API)
- Broad range of LAN and WAN connectivity options
- Web-based 3270 access with Host On-Demand Version 1
- Motif Administration tool for improved configuration and administration

eNetwork Communications Server for AIX provides 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

Intended Customers

RS/6000™ customers who:

- Have multiprotocol networks (SNA and TCP/IP) and want to use applications written for one protocol in a network using the other protocol
- Want to provide SNA 3270 host access to TCP/IP users
- Require a full range of communications and connectivity offerings

Key Prerequisites

Requires either: AIX Version 4.1.5, or 4.2 and later, or 4.3.

Planned Availability Date

February 27, 1998

Description

IBM eNetwork Communications Server for AIX provides all-in-one communications services between workstations and a System/390® or an AS/400® system, as well as other workstations. Its capabilities include a full-function SNA gateway, the most advanced peer-to-peer networking system in the industry, support for many types of connectivities, and a rich set of application programming interfaces (APIs). Of particular significance is the support of SNA, which is based on IBM's long experience as the architect and developer of this important protocol. In addition, the eNetwork Communications Server opens the door wide to protocol-independent networking, with seamless support for workstations communicating across SNA and TCP/IP networks. This gives companies the freedom to be responsive to the changing demands of business applications, while minimizing network impacts.

The eNetwork Communications Server for AIX is an evolution of the previous versions of SNA Server/6000 and Communications Server for AIX and includes all the robust function-rich characteristics. The following is a summary of the new functions and enhancements:

Integrated TN3270E Server

This function provides access to SNA networks for a wide range of TCP/IP client applications running anywhere in the TCP/IP network. TN3270E Server provides a method, based on standards, that allows TN3270 clients easy access to the large number of existing mission critical applications residing on IBM host systems without having to make any changes 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. Users can print from 3270 applications to locally attached printers or to network printers residing anywhere in the TCP/IP network.

Enhanced APIs

The eNetwork Server for AIX provides enhanced APIs that are more compatible with the APIs provided with the other eNetwork Communications Server family of products for the OS/2® Warp and Windows NT™ environments. The following new or enhanced APIs are provided:

- LUA API enables application programmers to write applications that communicate with host applications at the request unit and response unit (RU) level. LUA supports LU0, 1, 2, or 3 communications with the host.

- NOF (Node Operator Facility) can be used to write applications that administer configuration and management resources.

- The CPI-C API provides CPI-C 2.0+ support and is binary compatible with existing CPI-C applications written for earlier versions of Communications Server for AIX.

- A new style APPC API supports LU 6.2 communications using either independent sessions for peer-to-peer communications or dependent sessions for host communications.

- CSV (Common Service Verb) API provides utility verbs that enable an application program to perform functions such as character set conversion and trace file control.

- The MS (Management Services) API enables an application to communicate with other MS products in an APPN network.

- The new eNetwork Host Access Class Library (Host Access API) is a Java™ API that provides the ability for users to develop 3270, 5250, or VT Java applications. Host Access API for Java provides a core set of classes and methods that allow the development of platform-independent applications that can access host information at the data stream level.

The following APIs are included to provide support for existing programs used on previous versions of SNA Server/6000 and Communications Server for AIX. Because these APIs may not be enhanced in future releases, it is recommended that new applications be developed with the enhanced or new APIs:

- Generic SNA

- LU 0

- Operating System Subroutines (LU types 1, 2, 3, and 6.2)

- Library Subroutines for TP Conversations (LU types 1, 2, 3, and 6.2)

- Management Services (MS)

- Library Subroutines for Network Management (NMVTs)

Motif Administration Program

Motif provides complete configuration and management facilities for the eNetwork Communications Server through an easy-to-use graphical user interface. Extensive help screens provide guidance to perform specific tasks and include overview and reference information. Dynamic updates to the configuration can be made while the SNA node is active. Up-to-date status is displayed, and resources can be activated and deactivated through this same easy-to-use interface. In addition, configuration changes made using the Motif administration program, the command-line program, and the NOF API are applied immediately to the node configuration file.

SNA extensions

The HPR feature of APPN now includes Rapid Transport Protocol (RTP). This feature provides end-to-end support for nondisruptive rerouting of session traffic around route failures or congestion. This function is supported over all link types.

Dependent LU requester (DLUR) enables sessions between dependent LUs and hosts to be routed over APPN networks. DLUR was previously available, on Communications Server for AIX, for LU types 1, 2, 3, and dependent LU 6.2, and is now extended to sessions that use Generic SNA, secondary LU 0, and the new LUA API.

Dynamic Definition of Dependent LUs (DDDLU) enables the eNetwork Communications Server for AIX to dynamically define LUs to VTAM® systems, reducing the need for host configuration. This function is also known as SDDLU (Self-Defining Dependent LUs).

Expanded Connectivity

Link connectivity support now includes:

- Frame Relay using an emulated token ring interface, with the TPS/SoftFRAD product, over a PortMaster or Artic adapter

- ATM using an emulated LAN (token ring or Ethernet) interface over an IBM AIX ATM adapter

- MultiPath Channel (MPC) over the ESCON® adapter

The SNA Channel Attachment Feature is now integrated into the eNetwork Communications Server for AIX, Version 5.0 and is included as a standard part of the base package. This function is no longer a separately orderable priced feature.

Integrated Host On-Demand Version 1

With the integrated IBM Host On-Demand, the eNetwork Communications Server provides easy central computer access to any Java-enabled web browser. With the click of the mouse, web users can gain access to host applications such as public catalogs, databases, software applications, or other resources on central computers. No customer programming or additional hardware is required.

Year 2000

This product does not have date dependencies and is, therefore, Year 2000 ready.

Product Positioning

IBM eNetwork Communications Server for AIX takes advantage of IBM's experience with systems network architecture (SNA), Transmission Control Protocol (TCP/IP), and multi-platform communications servers to provide a high-performance, high-quality communications solution for the AIX environment. The server provides an essential foundation for network computing by providing industrial-strength support for the most widely used networking technologies, enabling customers and business partners to build client/server applications that are independent of networking protocol.

The eNetwork Communications Server for AIX is positioned to meet a wide range of customer requirements by providing APIs, such as LUA, NOF, CPI-C, and a new APPC to allow user-written applications to communicate with other applications using IBM's SNA as the communications protocol.

The full implementation of APPN (end node and network node), high performance routing (HPR), and dependent logical unit requester (DLUR), along with the integrated gateway capabilities, positions the eNetwork 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 eNetwork Communications Server is well positioned for customers with multiprotocol networking environments.

The SNA Client Access™ for AIX Version 1 product (5696-944) continues to be an available, and supported, product and should be recommended to customers with a TN5250 Server requirement.

The eNetwork Communications Server is the solution for companies in the AIX environment that:

- Run multiprotocol or multiple networks

- Want to consolidate or change their backbone networks

- Want to provide SNA 3270 host applications to TCP/IP users via TN3270E

- 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 access data from anywhere using familiar interfaces and protocols

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Ordering Methods

The eNetwork Communications Server for AIX®, Version 5.0 is available for ordering as follows:

- Order Type (5801-AAR) with associated feature and part numbers.

- Parts numbers only

- Program Type/Model number (5765-D20). This method also requires the System Program Number (SPO) 5692-AIX. This allows the product to be stacked on the supported media with other AIX programs or preinstalled on the accompanying RS/6000™ hardware system order.

IBM Field Sales and System Business Partners can use the Program Type/Model or the Order Type method. Workstation Software Business Partners should use the part number method.

Ordering details for both methods are included for your reference.

Publications

Part Number Ordering Option: One copy of the *IBM eNetwork Communications Server for AIX: Quick Beginnings* (SC31-8583) is shipped in the program package.

System Program Order Option: One copy of the following publications is supplied automatically with the basic machine-readable material:

Title	Order Number
eNetwork Communications Server for AIX Quick Beginnings	GC31-8583
eNetwork Communications Server for AIX General Information	GC31-8584
eNetwork Communications Server for AIX Migration Guide	SC31-8585
eNetwork Communications Server for AIX Administration Guide	SC31-8586
eNetwork Communications Server for AIX Diagnostics Guide	SC31-8588

The following hardcopy publications can be ordered separately, for a fee, after planned availability. To order contact your IBM representative.

Title	Order Number
eNetwork Communications Server for AIX Quick Beginnings	GC31-8583
eNetwork Communications Server for AIX General Information	GC31-8584
eNetwork Communications Server for AIX AnyNet® Guide to Sockets over SNA	GC31-8597
eNetwork Communications Server for AIX AnyNet Guide to APPC over TCP/IP	GC31-8598
eNetwork Communications Server for AIX Channel Connectivity User's Guide	SC31-8129
eNetwork Communications Server for AIX Migration Guide	SC31-8585
eNetwork Communications Server for AIX Administration Guide	SC31-8586
eNetwork Communications Server for AIX Administration Command reference	SC31-8587
eNetwork Communications Server for AIX Diagnostics Guide	SC31-8588
eNetwork Communications Server for AIX Glossary	GC31-8589
eNetwork Communications Server for AIX APPC Programmer's Guide	SC31-8590
eNetwork Communications Server for AIX CPI-C Programmer's Guide	SC31-8591
eNetwork Communications Server for AIX LUA Programmer's Guide	SC31-8592
eNetwork Communications Server for AIX Common Service Verbs Programmer's Guide	SC31-8593
eNetwork Communications Server for AIX Management Services Programmer's Guide	SC31-8594
eNetwork Communications Server for AIX Node Operator Facility Programmer's Guide	SC31-8595
eNetwork Communications Server for AIX APPC Application Suite User's Guide	SC31-8596

Displayable Softcopy Publications: IBM eNetwork Communications Server for AIX, Version 5.0 manuals are offered in displayable softcopy form. 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.

These displayable manuals are written in HyperText Markup Language (HTML) and can be viewed with any browser that supports HTML 3.2.

Technical Information

Specified Operating Environment

Hardware Requirements: eNetwork Communications Server for AIX, Version 5 runs on RS/6000 systems. These programs can be used on all RS/6000, POWERserver® or POWERstation™ computer, PowerPC® system and 9076 SP2™ Scalable POWERparallel® systems that support AIX Version 4.1.5, or later, or Version 4.2, or later, or Version 4.3.

One or more of the following network communication adapters are required:

- Token Ring:

  - Token-Ring High Performance Network Adapter (#2970)
  - IBM 16/4 PowerPC Token-Ring Adapter (#2971)
  - Auto Token-Ring LAN Streamer® 32 MC Adapter (#2972)
  - PCI AutoLANStreamer Token-Ring Adapter (#2979)
  - IBM PCMCIA 16/4 Token-ring Card (#8040)

- Ethernet:

  - High-Performance LAN Adapter (#2980)
  - IBM ISA Ethernet Adapter (#2981)
  - IBM PCI Ethernet BNC/RJ-45 Adapter (#2985)
  - IBM PCI Ethernet AUI/RJ-45 Adapter (#2987)
  - Ethernet/FDX 10 Mbps TP/AUI MC Adapter (#2992)
  - Ethernet/FDX 10 Mbps BNC/AUI MC Adapter (#2993)
  - IBM PCI 10/100 Mbps Ethernet Adapter (#2968)
  - IBM MC 10/100 Mbps Ethernet Adapter/UNI (#2964)
  - IBM MC 10/100 Mbps Ethernet Adapter (#2994)
  - 3Com 3C905-TX-IBM Fast EtherLink XL NIC (#2986)
  - Integrated Ethernet Adapters

- SDLC:

  - 4-Port Multiprotocol Communications Controller (#2700)
  - ISA MPQP Adapter (#2701)
  - Single-port, Multiprotocol Adapter/A (#2959)
  - IBM 2-Port Multiprotocol Adapter (#2962)

- X.25:

  - X.25 Interface Co-Processor/2 (#2960)
  - X.25 Interface Co-Processor ─ ISA (#2961)
  - Portmaster® Adapter/A ─ 1 MB (#7006)
  - Portmaster Adapter/A ─ 2 MB (#7008)
  - Multiport Model 2 ─ ISA (#2701)
  - ARTIC960 Co-Processor ─ 4 MB (#2924)
  - ARTIC960 Co-Processor ─ 8 MB (#2928)

- IBM Fiber Distributed Data Interface (FDDI) Adapters plus appropriate cables for attachment to a FDDI network:

  - FDDI Single-Ring Adapter (#2720)
  - Fiber Single-Ring Adapter (#2724)
  - FDDI Dual-Ring Upgrade (#2722)

  - Fiber Dual-Ring Adapter (#2723)
  - STP Single-Ring Adapter (#2725)
  - STP Dual-Ring Upgrade (#2726)
  - SysKonnect PCI Adapter ─ fiber (#2741)
  - SysKonnect PCI Adapter ─ dual fiber (#2742)
  - SysKonnect PCI Adapter ─ copper (#2743)

- ESCON® Channel Adapter (#2756) plus:

  - ESCON optional cooling fan (#6506) is required for RS/6000 Model 7013
  - ESCON fiber optic cabling and connectors

- Block Multiplexer Channel Adapter (#2755) plus:

  - Block Multiplexer Adapter Cable (#2757)
  - Block Multiplexer Interface Assembly (#2758)
  - Bus and Tag cable of appropriate length

- ATM:

  - TURBOWAYS™ 155 PCI MMF ATM Adapter (#2988)
  - TURBOWAYS 155 PCI UTP ATM Adapter (#2963)
  - TURBOWAYS 25 PCI ATM Adapter (UTP/STP) (#2963)
  - 155 ATM MultiModeFiber (MMF) (#2989)
  - 100 ATM MultiModeFiber (MMF) (#2984)

- Frame Relay connections are supported by utilizing the TPS/SoftFrad product from the TPS Systems, Inc. in San Antonio, Texas. For complete adapter support information refer to the TPS Systems, Inc. worldwide web pages at:

  http://www.tpssys.com

For additional on-going information pertaining to adapter support contact:

  http://www.software.ibm.com/enetwork/commserver/

Memory Requirements: A RS/6000 workstation running eNetwork Communications Server for AIX, Version 5 needs the following minimal fixed-disk storage capacity:

- 36 MB for Communications Server for AIX (plus an additional 2MB of temporary storage during installation)

- 2.5 MB to 4.0 MB per language for messages, depending on the language

An additional 14 MB of disk space is required if the publications are installed.

eNetwork Communications Server for AIX, Version 5 requires 32 MB of real memory for effective performance.

Note: Memory and fixed disk requirements for other licensed programs, user applications, and data are not included in these requirements.

Software Requirements: eNetwork Communications Server for AIX, Version 5.0 requires AIX (5765-C34) either AIX Version 4.1.5, or later or AIX Version 4.2, or later or AIX Version 4.3.

One or more of the following AIX data link control (DLC) filesets are required in order to communicate over the network.

- bos.dlc.token for token ring link stations

- bos.dlc.ether for standard Ethernet link stations

- bos.dlc.8023 for 802.3 Ethernet link stations

- bos.dlc.qllc for X.25 link stations

- bos.dlc.sdlc for SDLC link stations

- bos.dlc.fddi for FDDI link stations

- sna.dlcchannel or sna.dlcmpc for channel link stations

AnyNet Sockets over SNA requires eNetwork Communications Server for AIX, Version 5.0 APAR IX73912 with PTF U453791 and either:

- AIX Version 4.1.5 with bos APAR IX71481, or

- AIX Version 4.2.0.1 with bos APAR IX71570, or

- AIX Version 4.3 (no bos APAR required)

Motif level 1.2 (part of the AIX Base Operating System) is required for the Motif administration program.

Compatibility: eNetwork Communications Server for AIX, Version 5 is not compatible with:

- AIX Version 3.2.X

eNetwork Communications Server for AIX Version 5 is compatible with:

- ESCON Channel Connectivity for AIX Version 1.1 (5765-603)

- Block Multiplexer Channel Connectivity for AIX Version 1.1 (5765-604)

Limitations: Diskless workstations are not supported.

Performance Considerations: eNetwork Communications Server for AIX, Version 5 contains many performance and tuning recommendations. Refer to the IBM eNetwork Communications Server for AIX Understanding and Migration to Version 5 (SG24-2136) for details.

Performance can be affected by:

- Type of connection and network characteristics

- Number of user and concurrent sessions

- Type of tasks

- Available installed memory

- RAS and/or trace activity

Planning Information

Packaging

Program Type/Model — SPO Orders

- eNetwork Communications Server for AIX product can be shipped either preinstalled on system DASD, 8-mm or 4-mm tape, or on CD-ROM

Order Type/Part Number Orders

- eNetwork Communications Server for AIX is available on CD-ROM only

Entitlement documentation to support the product is provided in hardcopy.

Evaluation CD-ROM

End-users can request a no-charge evaluation CD-ROM for the IBM eNetwork Communications Server for AIX, Version 5.0. This package is available to assist potential customers and business partners in evaluating the product. For information on how to obtain this CD-ROM refer to the following url.

http://www.software.ibm.com/enetwork/comserver/

Security, Auditability, and Control

The eNetwork Communications Server for AIX uses the security and auditability features of AIX Version 4.

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

eNetwork Communications Server for AIX, Version 5.0 is a client/server type product which has two charge units: server install and registered users. The server install is available in a fixed order quantity of 1. The registered users are available in fixed order quantities of 1, 5, 10 and 50.

eNetwork Communications Server for AIX, Version 5.0 is available at an upgrade price for those customers currently licensed for the following qualifying programs:

- AIX SNA Services/6000 Version 1.X

- AIX SNA Server/6000 Version 2.X

- AIX SNA Gateway/6000 Version 2.X

- SNA Server for AIX Version 3.1

- Desktop SNA for AIX Version 1.1

- Communications Server for AIX, Versions 4.1 and 4.2

- SNA Client Access™ for AIX Version 1.X

- Any IBM or non-IBM gateway or communications server

Upgrades may be acquired up to the current level of use authorizations for the qualifying programs.

Ordering Notes

- Charges for eNetwork Communications Server for AIX, Version 5.0 are based on concurrent registered users (not sessions). A workstation counts as one user regardless of the number of active sessions.

- A user is an active upstream or downstream connection established to the Communications Server. An active connection includes TN3270, SNA (including APPN® and DLUR) and AnyNet clients. In an APPN environment a connection is an active link to an adjacent node(s). If a multiplexing program or application server (for example, Transaction, DB2®, DDCS) connects to the Communications Server providing access on behalf of multiple users, then one registered user is required for the number of concurrent connections (links) established to the Communications Server. The number of users attached to the multiplexing software or application server is not relevant. One connection (link) can have multiple SNA sessions. However, only active connections are counted as licensed registered users.

- 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 eNetwork Communications Server for AIX, Version 5.0.

Upgrade Notes: Upgrades to eNetwork Communications Server for AIX, Version 5.0 are available from any IBM or non-IBM (competitive offering) SNA gateway or communications server product. The following upgrade information applies:

- The eNetwork Communications Server for AIX, Version 5.0 includes authorization for 1 registered user.

- When upgrading from a usage-based product, you are authorized to acquire the equivalent number of users at a reduced price by specifying the registered user upgrade feature.

- When upgrading from a product that is priced based on sessions, such as Communications Server for AIX Version 4.X, or SNA Client Access for AIX Version 1.X, the customer is eligible for a number of registered user upgrades equal to the actual number of concurrent users being supported on the prior product. For example, if the customer has licensed 50 sessions on a previous product, and actually supports 25 concurrent users, each running 2 sessions, they would purchase 25 registered user upgrades with Communications Server for AIX Version 5.0. This would also apply to customers upgrading from prior versions of Communications Server for AIX with the Unlimited Sessions feature. These customers should also determine the actual number of concurrent users being supported and purchase an equivalent number of registered user upgrades. For example, a customer with the Unlimited Sessions feature who has 50 users each running 4 sessions would only need to purchase 50 registered user upgrades to support their equivalent user environment.

- New and additional users must be acquired at the full price using the applicable registered user features for 1, 5, 10, and 50.

- When upgrading from a non usage-based product, you are not entitled to any registered users for upgrade. All users are considered as new users and must be acquired at the full price.

Order Type Number Information

Program Name/Description	Order Type Number	Feature Number	Part Number
eNetwork Communications Server for AIX — Version 5.0 Program Package CD-ROM	5801-AAR	7087	04L0743
eNetwork Communications Server for AIX — Version 5.0 1 Server Install	5802-AAR	5338	4302127
eNetwork Communications Server for AIX — Version 5.0 1 Registered User	5807-AAR	8551	4302129

Program Name/Description	Order Type Number	Feature Number	Part Number
eNetwork Communications Server for AIX — Version 5.0 5 Registered Users	5807-AAR	8552	4302130
eNetwork Communications Server for AIX — Version 5.0 10 Registered Users	5807-AAR	8553	4302131
eNetwork Communications Server for AIX — Version 5.0 50 Registered Users	5807-AAR	8554	4302132
eNetwork Communications Server for AIX — Version 5.0 Documentation Pack			4302126

Upgrades

Program Name/Description	Order Type Number	Feature Number	Part Number
eNetwork Communications Server for AIX — Version 5.0 Program Package Upgrade from any IBM or non-IBM gateway or communications server CD-ROM	5803-AAR	4569	04L0752
eNetwork Communications Server for AIX — Version 5.0 1 Server Install Upgrade from any IBM or non-IBM gateway or communications server	5804-AAR	6299	4302128
eNetwork Communications Server for AIX — Version 5.0 1 Registered User Upgrade from any IBM or non-IBM gateway or communications server	5808-AAR	7172	04L0922

Software Advantage

Program Name/Description	Order Type Number	Part Number
eNetwork Communications Server for AIX — Version 5.0 1 Server Install for Software Advantage	5802-AAR	04L0923
eNetwork Communications Server for AIX — Version 5.0 1 Registered User for Software Advantage	5807-AAR	4302133
eNetwork Communications Server for AIX — Version 5.0 Media Pack for Software Advantage		4302125

Software Advantage Upgrades

Program Name/Description	Order Type Number	Part Number
eNetwork Communications Server for AIX — Version 5.0 1 Server Install for Upgrade and Software Advantage	5804-AAR	04L0924
eNetwork Communications Server for AIX — Version 5.0 1 Registered User for Upgrade and Software Advantage	5808-AAR	4302134

Software Advantage Upgrade Protection

Program Name/Description	Order Type Number	Part Number
Upgrade Protection for eNetwork Communications Server for AIX — Version 5.0 Server Install —One-Time Charge	5809-AAR	04L0925
Upgrade Protection for eNetwork Communications Server for AIX — Version 5.0 Registered User —One-Time Charge	5809-AAR	04L2965

Upgrade Protection (Entitled Customers): Customers who have previously acquired Software Advantage Upgrade Protection, as shown in the table below, will automatically receive their program package shortly after general availability.

Program Name/ Description	Upgrade Protection One-Time Charge Part Numbers	Upgrade Protection Quarterly Charge Part Numbers	Program Package Upgrade Part Numbers
Upgrade Protection for Communications Server for AIX, Version 4.2	84H6044	84H6045	04L0743
Upgrade Protection for Communications Server for AIX, Version 4.2 Use Based Feature	84H7506	84H7507	4302129

Type/Model Number Ordering Information for Delivery under System: Program Order (SPO)

Orders for new licenses will be accepted now.

Shipments will begin on the planned availability date.

Basic License: To order, specify the type model number, asset feature number 9001, OTC feature number 0001 and the applicable feature numbers of the desired quantity of registered users from the table below. The OTC for the eNetwork Communications Server includes the authorization for 1 registered user. A feature number has a maximum order quantity of 250 per order.

Order Type Description	Type-Model Number	One-Time Charge Feature Number
eNetwork Communications Server for AIX Version 5.0	5765-D20	0001
1 Registered User		0002
5 Registered Users		0003
10 Registered Users		0004
50 Registered Users		0005

Preinstall: The preinstall option is only valid if accompanied by a hardware system order for the preinstalled eNetwork Communications Server for AIX Version 5.0 specifying the preinstalled option.

Note: Not all of the software offered under the licensed program will be installed on the system disk.

The 5765-D20 order and SPO must be for the same system type/system number and must have the same schedule shipment date.

Feature number 5005 must be specified under the individual licensed program 5765-D20 and the 5692-AIX SPO to facilitate preinstall of the licensed program on the system disk.

The preinstallation option is available at no additional charge.

Upgrades: To order the program upgrades, specify the type model number, asset feature number 9001 and the desired quantity of registered users from the table below.

Order Type Description	Type-Model Number	One-Time Charge Feature Number
eNetwork Communications Server for AIX, Version 5.0 for Upgrade	5765-D20	1001
eNetwork Communications Server for AIX, Version 5.0 1 Registered User for Upgrade		1002

Customers who have subscribed to Upgrade Protection Plan for Communications Server for AIX, Version 4 by previously ordering Charge Feature Numbers from the table below are eligible to receive the new product in this announcement. Customers should be notified and asked if they want to upgrade at this time. To order the new product, process an MES order under 5692-ADV and specify new supply feature number 0530. Customers are entitled to the number of users sessions previously ordered under the AIX/UNIX® Upgrade Protection Plan.

Feature Description	Charge Feature Number OTC	Annual
Communications Server for AIX (5765-652) Version 4 Base	4678	4679
Use-Pack 1 User Session	4680	4681
Use-Pack 5 User Sessions	4682	4683
Use-Pack 10 User Sessions	4684	4685
Use-Pack 50 User Sessions	4686	4687
Unlimited Session Usage per Server	4688	4689
SNA Channel Connectivity	4690	4691

Also, select one of the following media types under 5692-ADV:

Media Type	Media Feature Number
8-mm tape	3407
4-mm tape	3423
CD-ROM	3410

Withdrawal of AIX/UNIX Upgrade Protection Feature Codes: Supply feature numbers 0583, 0584, 0586, and 0587 under 5692-ADV are withdrawn effective February 17, 1998.

Customization Options: Select the appropriate feature numbers to customize your order to specify the delivery options desired. These features can be specified on the initial or MES orders under 5692-AIX.

Description	Feature Number
Expedite Shipments	
Local IBM Office Expedite (for IBM use only)	3445
Customer Expedite Process Charge ($30 charge for each product)	3446

Expedite shipments will be processed to receive 72-hour delivery from the time IBM Software Manufacturing Solutions (SMS) receives the order. SMS will then ship the order via overnight air transportation.

System Program Order (5692-AIX): A 5692-AIX System Program Order (SPO) is mandatory for shipments of program distribution and publications. The individual licensed program orders (for example, 5765-D20) will be for registration and billing purposes only. No shipment will occur under these orders.

To receive shipment of machine-readable materials stacked on a single 8-mm, 4-mm, or CD-ROM requires an SPO (5692-AIX). Billing for the media type selected will be generated under the SPO. To prevent additional billing expenses, it is recommended that only one SPO order per machine be placed.

Select the following (5692-AIX) feature number for the licensed program hardcopy entitled publications, along with feature number 9001 for asset registration to be shipped on a given date.

Program Name	SPO Feature Number
IBM eNetwork Communications Server for AIX, Version 5.0 (5765-D20)	0731

Basic Machine-Readable Material: Select one of the following priced feature numbers for media type under 5692-AIX. The media process charge is a one-time non-discountable charge per SPO order when media is selected.

Media Type	Media Feature Number	Media Process Charge Feature Number
8-mm tape	3407	1002
4-mm tape	3423	1003
CD-ROM	3410	1004

Under SPO 5692-AIX, feature number 3470 can be used to suppress hardcopy documentation. To order entitled hardcopy documentation only, order feature number 3430.

Terms and Conditions

Licensing: IBM International Program License Agreement. Proofs of Entitlement (PoE) are required for all authorized use.

Limited Warranty: Yes

Program Services: Available until January 31, 2001

Money-back Guarantee: Two months, money-back guarantee for program packages

Copy and Use on Home/Portable Computer: No

Support Line: AIX

Complimentary Introductory Support

Length of time:	60 days
Must be part of solution with:	RS/6000 brand system acquired from IBM
Applies to:	First installation in customer enterprise

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: Yes

Entitled Upgrade for Current AIX/UNIX Upgrade Protection Licensees: Yes

Variable Charges Apply: No

Educational Allowance Available: Yes, to qualified educational institution customers.

Charges

Program Name/Description	Part Number	One-Time Charge
eNetwork Communications Server for AIX — Version 5.0 Program Package CD-ROM	04L0743	$ 995
eNetwork Communications Server for AIX — Version 5.0 1 Server Install	4302127	965
eNetwork Communications Server for AIX — Version 5.0 1 Registered User	4302129	69
eNetwork Communications Server for AIX — Version 5.0 5 Registered Users	4302130	328
eNetwork Communications Server for AIX — Version 5.0 10 Registered Users	4302131	642
eNetwork Communications Server for AIX — Version 5.0 50 Registered Users	4302132	3,174

Upgrades

Program Name/Description	Part Number	One-Time Charge
eNetwork Communications Server for AIX — Version 5.0 Program Package Upgrade from any IBM or non-IBM gateway or communications server CD-ROM	04L0752	595
eNetwork Communications Server for AIX — Version 5.0 1 Server Install Upgrade from any IBM or non-IBM gateway or communications server	4302128	565
eNetwork Communications Server for AIX — Version 5.0 1 Registered User Upgrade from any IBM or non-IBM gateway or communications server	04L0922	41

Software Advantage

Program Name/Description	Part Number	One-Time Charge
eNetwork Communications Server for AIX — Version 5.0 1 Server Install for Software Advantage	04L0923	965
eNetwork Communications Server for AIX — Version 5.0 1 Registered User for Software Advantage	4302133	69

Software Advantage Upgrades

Program Name/Description	Part Number	One-Time Charge
eNetwork Communications Server for AIX — Version 5.0 1 Server Install for Upgrade and Software Advantage	04L0924	$ 565
eNetwork Communications Server for AIX — Version 5.0 1 Registered User for Upgrade and Software Advantage	4302134	41

Software Advantage Upgrade Protection

Program Name/Description	Part Number	One-Time Charge
Upgrade Protection for eNetwork Communications Server for AIX — Version 5.0 Server Install — One-Time Charge	04L0925	289
Upgrade Protection for eNetwork Communications Server for AIX — Version 5.0 Registered User — One-Time Charge	04L2965	21

Monthly Optional AIX Support Line Charge

Program Number	Feature Number	Part Number	Description	Charge
5801AAR	7087	04L0743	Comm Server for AIX V5	$230
5801AAR	4569	04L0752	Comm Server for AIX V5 Upgrade	230

Program Name: IBM eNetwork Communications Server for AIX, Version 5.0

Order Type Description	Type-Model Number	One-Time Charge Feature Number	One-Time Charge
eNetwork Communications Server for AIX Version 5.0	5765-D20	0001	$ 995
1 Registered User		0002	69
5 Registered Users		0003	328
10 Registered Users		0004	642
50 Registered Users		0005	3,174

Upgrades

Order Type Description	Type-Model Number	One-Time Charge Feature Number	One-Time Charge
eNetwork Communications Server for AIX, Version 5.0 for Upgrade		1001	595
eNetwork Communications Server for AIX, Version 5.0 1 Registered User for Upgrade		1002	41

Call Now to Order

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

IBM North America Sales Centers, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

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    Fax: 800-2IBM-FAX
    Internet: ibm—direct@vnet.ibm.com
    Mail: IBM North America Sales Centers
             Dept. RE010
             P.O. Box 16848
             Atlanta, GA 30321-0848
    Reference: RE010

To identify your local IBM Business Partner or IBM representative, call 800-IBM-4YOU.

Note: Shipments will begin after the planned availability date.

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