Gateway Communications Network Products

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Product Summary

Editor's Note

Since our last version of this report was published, Gateway Communications has introduced a number of new products, including a line of 10BASE-T-compatible interface cards and hubs under the G/EtherTwist name. The company has discontinued OEM sales of Novell's NetWare network operating system.

Description

Gateway Communications manufactures and markets local area network (LAN) and wide area network (WAN) products, including Ethernet and token-ring network interface cards, hubs, repeaters, and transceivers, as well as gateway and bridge/router devices. Gateway's products are designed for use with IBM and compatible personal computers.

Strengths

Gateway offers a comprehensive line of networking and internetworking solutions. The company's new G/EtherTwist line provides products for the active and growing 10BASE-T market. Gateway provides support for all major network operating systems, including Novell NetWare, Banyan VINES, and Microsoft LAN Manager.

Limitations

Gateway's line of Ethernet products is much more complete than its token-ring line; there is no support for 16M bps token-ring transmission. Its G/Net network, while successful, does not conform to IEEE 802.X specifications.

Competition

Cabletron, David Systems, Proteon, Racal InterLan, Standard Microsystems, 3Com, and several other companies.

Vendor

Gateway Communications, Inc.
2941 Alton Avenue
Irvine, CA 92714
(714) 553-1555
In Canada:
Contact Gateway Communications.

Price

Network interface cards are priced from $250 to $695; gateways and bridge/routers cost from $895 to $4,580.

GSA Schedule

No. (Proposal submitted and under review.)

—By Joseph F. Kelly
Managing Editor

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Analysis

Product Strategy

Like many companies in the LAN hardware business, Gateway Communications has concentrated recently on expanding its presence in the IEEE 802.3 10BASE-T market. With the user community's widespread acceptance of 10M bps Ethernet transmission over unshielded twisted-pair wire (UTP), virtually every vendor that offers Ethernet products has expanded its line to include 10BASE-T hardware. Gateway's line, called G/EtherTwist, includes network interface cards (NICs), hubs, and transceivers.

Included in Gateway's G/EtherTwist family are two unique members: G/EtherTwist AT Hub Adapter and G/EtherTwist AT Hub Expander. Introduced in April 1991, the G/EtherTwist AT Hub Adapter is an NIC and hub combined on a single card. G/EtherTwist AT Hub Expander increases the number of nodes supported by G/EtherTwist AT Hub Adapter from 5 to 9; up to 13 nodes are supported with a second expander card. According to Gateway's vice president of sales and marketing, Bert R. Ott, "These products are ideal for small networks where the investment in a more expensive, full-size hub is not practical."

Gateway's other LAN hardware product offerings fall under three families: G/Ethernet, G/Token-Ring, and G/Net. G/Ethernet and G/Token-Ring comply with the IEEE 802.3 and 802.5 specifications, respectively. G/Net, Gateway's original product, is a nonstandard LAN that employs a baseband linear bus topology and uses the carrier sense multiple access with collision detection and collision avoidance (CSMA/CD/CA) access method, supporting error detection and correction (EDC).

The company's comprehensive product line also includes LAN-to-LAN bridge/routers and gateways, LAN-to-WAN gateways, LAN-to-host gateways, and PC-to-LAN gateways. Gateway has offered X.25, SNA, and async gateways and bridges since 1985. G/Remote Bridge was the first NetWare-based product that allowed any type of Advanced NetWare LAN to be connected to any other kind of Advanced NetWare LAN, regardless of the topology or hardware.

In late 1990, Gateway announced that it would discontinue OEM sales of Novell's NetWare network operating system software and would sharpen its focus on providing connectivity products. Previously, Gateway had packaged versions of NetWare with its own hardware and sold these packages as starter kits. At the announcement, Ott explained, "We will continue to support NetWare and participate in Novell's Independent Manufacturer's Support Program, so that we can remain compatible with NetWare and address the market in the future. In addition, we have been aggressively developing LAN software for non-NetWare operating systems such as Banyan VINES, OS/2 LAN Manager, and NETBIOS environments." Gateway's decision is part of a strategy to decrease its dependency on NetWare and broaden the scope of network operating systems supported by its product line.

David S. McMaster, Gateway's president and CEO, expanded on the company's strategy in its 1990 annual report. "The core of Gateway's LAN strategy will continue to be the development and marketing of a full range of leading edge Ethernet products and accessories," said McMaster. Focusing on the WAN and internetworking market, McMaster said, "Gateway's WAN communications expertise will be used to create remote access products for local area networks. Our strategy for these products will be primarily focused on opportunities in the asynchronous communications market niche."

Competitive Position

Gateway Communications competes in a crowded market; its LAN and WAN products are sold against a wide variety of competitors, including 3Com, IBM, Proteon, SynOptics, Cabletron, and many others.

Gateway's strength is in the Ethernet market; its new G/EtherTwist line accounted for 25 percent of the company's NIC shipments by the end of 1990. The company also maintains a strong position in the internetworking market; International Data Corp. (IDC), a market research firm based in

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Company Profile Gateway Communications, Inc.

	1990	1989	1988	1987
Net Sales ($)	25.0	25.3	16.7	12.8
Net Income ($)	0.4	1.0	0.5	0.5
Net Income per Common Share ($)	0.10	0.22	0.12	0.11

Figures in millions, except for share data; fiscal years ending December 31.

Corporate Headquarters
2941 Alton Avenue
Irvine, CA 92714
(714) 553-1555

Officers
President and CEO: David S. McMaster
Vice President Finance and CFO: Kirk E. Andrews
Vice President Research and Development: Edward C. Fudurich
Vice President Sales and Marketing: Bert R. Ott

Company Background
Year Founded: 1981
No. Employees: 119

Gateway Communications designs, develops, manufactures, and markets local and wide area network products. The publicly held company was incorporated in 1981. Gateway conducts all manufacturing, research and development, and marketing activities in a 22,000-square-foot building in Irvine, CA. Sales operations are conducted through seven domestic sales offices located in the Atlanta, Boston, Dallas, Detroit, Los Angeles, New York, and San Francisco metropolitan areas. Gateway also operates a European sales office in Abingdon, England. The company's products are resold through 74 domestic and 37 international distributors located in over 60 countries.

Financial Profile
Gateway Communications overcame a poor first quarter to finish 1990 with a net income of $470,000, or $0.10 per share (see table). First-quarter 1990 results showed a loss of $0.07 per share, which Gateway attributed to the disposal of an unprofitable Australian subsidiary. Earnings for the subsequent three quarters of 1990 totaled $0.17 per share. In May 1991, Gateway reported first-quarter 1991 results that included a net income of $331,000, or $0.07 per share, on revenues of $6.3 million.

Gateway reports total assets of $10.5 million as of the end of 1990, including $2.7 million in cash and certificates of deposit. In the last half of 1990, Gateway cash reserves increased by $900,000 "while maintaining our virtually debt-free history," according to McMaster. Gateway also claims a revenue-to-employee ratio of $216,000, better than the high-technology industry average of $164,000. Product shipments have increased for the past three years, from over 50,000 units shipped in 1988 to approximately 100,000 units shipped in 1990.

Management Statement
In his letter to shareholders in Gateway Communications' 1990 annual report, McMaster stated, "We are very enthusiastic about the opportunities we see for Gateway in 1991, and look forward to the challenges that lie ahead. We believe that the necessary management controls and procedures are in place to take advantage of upcoming market opportunities. Gateway's 1990 product development, sales, and shipping achievements reflect the dedicated efforts of our employees. Their hard work and loyalty allowed the company to remain profitable despite tight profit margins and tough competition."

Framingham, MA, ranked the company number one in worldwide gateway shipments and number two in worldwide router shipments as recently as 1989.

The traditional leader in the Ethernet NIC market is 3Com. Another strong competitor, Western Digital, recently sold its NIC business to Standard Microsystems, a leader in Arcnet NIC shipments. Other strong competitors in the Ethernet and 10BASE-T card and hub market are Cabletron, David Systems, Racal InterLan, SynOptics, and Ungermann-Bass.

IBM holds the lion's share of the token-ring adapter market. Other prominent token-ring vendors include Proteon and Madge Networks. It should be noted that while most token-ring LAN vendors offer products that support both 4M and 16M bps transmission speeds, Gateway's products support only 4M bps transmission.

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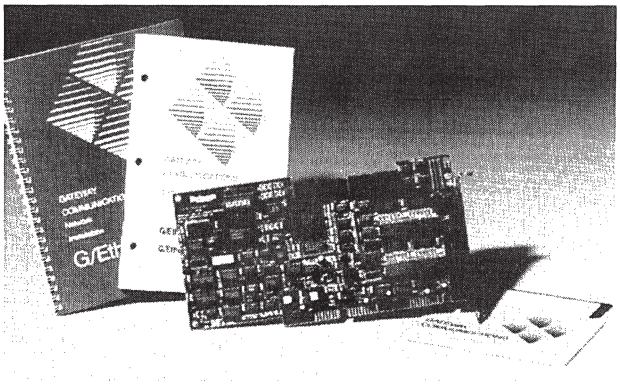

Gateway Communications' new G/EtherTwist AT Hub Adapter is an IEEE 802.3 Ethernet AT adapter and a four-port 10BASE-T hub combined on a single card.

Decision Points

Gateway's strength lies in its ability to provide a variety of networking and connectivity technologies and solutions. The company has been in business for 10 years and offers LAN products that comply with two industry networking standards (IEEE 802.3 and 802.5), in addition to its original local area network product, G/Net. Also, Gateway's X.25, async, remote bridge, and SNA products offer local and wide area connectivity solutions that will meet the needs of most network installations.

Gateway products have traditionally done well in benchmark tests conducted by industry press. Ethernet NIC tests conducted by National Software Testing Laboratories (NSTL), a Datapro company, showed the G/Ethernet adapter scoring 8.1 out of a possible 10 in Overall Evaluation, ranking it fourth out of 11 cards tested. In a similar test for token-ring cards, the G/Token-Ring AT card scored a 6.4, tying for fifth (with the IBM Token-Ring Adapter II) out of 10 cards tested. Gateway's G/EtherTwist AT, G/Ethernet/16, and G/Ethernet AT NICs all garnered awards from various industry magazines in 1990, as did the G/X25 Gateway 64.

Perhaps most important, Gateway has consistently been on the leading edge of industry trends, providing products for important emerging technologies. Gateway was among the first LAN companies to compete seriously in the internetworking market with its gateway and bridge/router products. It introduced token-ring products when that market first heated up. Now, with the 10BASE-T market exploding, it is well positioned with its G/EtherTwist line of NICs and hubs.

Characteristics

Models: G/Net, G/Ethernet, G/EtherTwist, and G/Token-Ring product lines.

Date Announced: G/Net—1983; G/Ethernet—1987; G/EtherTwist—1990; G/Token-Ring—1989.

Date First Installed: Same as announcement dates.

Number Installed: 600,000 adapters (worldwide).

Distribution: Through Gateway Communications sales offices and authorized domestic and international resellers.

Architecture

G/Ethernet and G/EtherTwist: G/Ethernet is a family of Ethernet-compatible (IEEE 802.3 10BASE5 and 10BASE2) local area network products. The G/Ethernet network uses a linear bus architecture supporting 10M bps transmission speeds. G/Ethernet offers software drivers for Novell NetWare, Microsoft OS/2 LAN Manager, 3Com 3+Open and 3+Share, TCP/IP, Microsoft Network Driver Interface Specification (NDIS), and compatible network operating systems. The network supports transmission over standard (thick) or thin Ethernet coaxial cabling, at distances up to 9,800 feet with repeaters or 1,640 feet without repeaters. The CSMA/CD access method is used. G/Ethernet adapters are available in 8-bit, 16-bit, and Micro Channel versions to support the IBM PC/XT/AT family and compatibles, IBM PS/2 and compatible systems, and Intel 80X86-based machines.

G/EtherTwist is a family of Ethernet IEEE 802.3 10BASE-T LAN products. A G/EtherTwist network supports transmission speeds of 10M bps over unshielded twisted-pair wire (UTP). G/EtherTwist uses a star configuration with nodes wired into a centrally located G/EtherTwist hub. The network supports the same software drivers as G/Ethernet and provides 8-bit, 16-bit, and Micro Channel adapters as well.

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Table 1. Ethernet NIC Specifications

	G/Ethernet PC	G/Ethernet AT	G/Ethernet MC	G/EtherTwist PC	G/EtherTwist AT	G/EtherTwist MC
IEEE LAN Standard	802.3 10BASE2/5	802.3 10BASE2/5	802.3 10BASE2/5	802.3 10BASE-T	802.3 10BASE-T	802.3 10BASE-T
Transmission Medium	Coaxial	Coaxial	Coaxial	UTP	UTP	UTP
Data Path	8-bit bus	16-bit bus	16-bit MCA	8-bit bus	16-bit bus	16-bit MCA
Card Size	Half slot	3/5 slot	Full slot	Half slot	3/5 slot	Full slot
On-Board RAM (bytes)	40K	64K	64K	40K	64K	64K
On-Board Transceiver	Standard	Standard	Standard	Standard	Standard	Standard
I/O Address	8 hardware selectable	8 hardware selectable	9 software selectable	8 hardware selectable	8 hardware selectable	9 software selectable

G/Token-Ring: G/Token-Ring LAN products conform to IEEE 802.5 specifications. G/Token-Ring is plug compatible with the IBM Token-Ring Network and supports software and hardware products developed for the IBM Token-Ring Network. G/Token-Ring is available with four-port and eight-port Multistation Access Units (MAUs). G/Token-Ring adapters support Novell NetWare and all NETBIOS-based operating systems, including the IBM PC LAN Program and IBM OS/2 LAN Server. G/Token-Ring supports transmission speeds up to 4M bps over twisted-pair wire (shielded or unshielded) in a star topology. G/Token-Ring adapters do not support 16M bps transmission speeds. The token-passing access method is used. Network nodes can be up to 150 feet from access units; the main ring path (backbone cable) can be 400 feet total.

G/Net: G/Net is a local area network featuring a baseband linear bus topology, supporting up to 255 PCs (IBM PC/XT/AT, PS/2 Model 30, compatibles, and 80386 based) on one network. The network uses a proprietary carrier sense multiple access with collision detection/collision avoidance (CSMA/CD/CA) access method, supporting error detection and correction (EDC). Media supported is standard (thick) and thin coaxial cable. The network supports a physical transmission range of up to 4,000 feet. Maximum transmission speed is 1.43M bps with the standard G/Net adapter board or 7.16M bps between machines with the G/Net VS adapter board installed.

G/Net's network interface cards support on-board co-processing that off-loads network functions from the PC workstation and provides 64K bytes of on-board, dual-ported RAM on the standard G/Net board or 512K bytes on the G/Net VS board. G/Net LAN supports all versions of Novell NetWare, MS-DOS, and all NETBIOS-based software. The network allows any IBM PC/XT/AT or compatible to be used as a file server and supports multiple file servers in a network.

Hardware

Network Interface Cards

Gateway manufactures and markets Ethernet, token-ring, and proprietary G/Net network interface card families.

Ethernet Cards

Table 1 presents the functional specifications of the G/Ethernet and G/EtherTwist network adapters. (Please note that the G/Ethernet PC and G/Ethernet AT products shown in Table 1 are available in G/Ethernet 8 and G/Ethernet 16 versions, respectively. These products are identical except that G/Ethernet 8 and G/Ethernet 16 do not include cabling and include NetWare drivers only.)

Token-Ring Cards

Gateway offers two token-ring NICs.

G/Token-Ring PC: This product is an 8-bit bus adapter for IBM PC/XT/ATs, PS/2 Model 30, and compatibles. It occupies a full slot and supports IBM Cabling System Types 1, 2, 6, 8, and 9 (shielded twisted pair), and Type 3 (UTP). It offers no on-board memory and two hardware-selectable I/O addresses. The G/Token-Ring PC card supports the IEEE 802.5 and 802.2 (LLC) standards.

G/Token-Ring AT: This product includes a 16-bit bus for the IBM PC AT and compatible systems. It contains all of the features of the G/Token-Ring PC and adds 128K bytes of on-board memory and bus mastering.

G/Net Cards

Gateway offers two NICs for its proprietary G/Net LAN.

G/Net Adapter: This NIC has a Z80-B co-processor with 64K bytes of dual-ported RAM to handle network requests, off-loading tasks from the PC workstation and allowing applications to run faster. The G/Net Adapter supports the IBM PC/XT/AT, IBM PS/2 Model 30, and

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compatible computers. It has an 8-bit bus, occupies a full slot, supports thin and thick Ethernet coaxial cable, and features 16 hardware-selectable I/O addresses.

G/Net VS Adapter: This NIC has an 8088 co-processor with 512K bytes of dual-ported RAM. It is designed for use in file servers and high-usage PC workstations. G/Net VS (variable speed) dynamically adjusts from 1.43M bps to 7.16M bps speeds. The G/Net VS Adapter supports the same computers as the G/Net Adapter and boasts identical features.

Hubs

Gateway provides two hubs for its G/EtherTwist 10BASE-T Ethernet networks.

G/EtherTwist Hub: This is the central component of a G/EtherTwist network. G/EtherTwist or other 10BASE-T-compatible nodes are wired in a star configuration to the centrally located G/EtherTwist Hub. The hub chassis supports up to two modules and can be configured to support 11 or 22 ports. Hubs can also be interconnected to support over 1,000 nodes within the 10BASE-T standard. Hub modules have 1 Attachment Unit Interface (AUI) port and 11 RJ-45 ports.

G/EtherTwist AT Hub Adapter: This product is an IEEE 802.3 Ethernet AT adapter and four-port 10BASE-T hub combined on a single card. It plugs into a 16-bit PC expansion slot and provides the LAN interface in the host PC plus a four-port hub that is accessible by any UTP-wired workstation on the LAN. It includes an on-board repeater and transceivers and features a basic monitoring utility (EtherStat).

G/EtherTwist AT Hub Expander: This is a four-port expansion card that increases the number of nodes supported by the G/EtherTwist AT Hub Adapter. Up to two G/EtherTwist AT Hub Expanders can be attached to a single hub adapter within the host PC.

Multistation Access Units

Multistation Access Units (MAUs) are available in both four-port and eight-port versions for the G/Token-Ring LAN. On a G/Token-Ring LAN, workstations are attached to MAUs, which are daisy-chained together throughout the system to form larger networks.

Transceivers and Repeaters

Gateway offers a variety of transceivers and repeaters for use with the G/Ethernet LAN.

G/Ethernet Transceiver: Transceivers provide the physical and electrical interface between the adapter and the transmission media on the network. The G/Ethernet Transceiver contains two ports—an interchangeable network interface (tap) for standard or thin coaxial cable and an AUI drop cable connection for the PC.

G/EtherTwist Transceiver: This is a coax-to-UTP media converter for Ethernet networks. G/EtherTwist Transceiver enables existing coaxial Ethernet adapters, fan outs, repeaters, and other devices to operate over UTP media. It complies with IEEE 802.3 10BASE-T specifications and attaches directly to an AUI port of a coaxial Ethernet adapter.

G/Ethernet Repeater: Repeaters extend the length and topology of the network beyond the limits imposed by the IEEE 802.3 specifications. Each repeater connects up to five standard cable segments in a series, extending the 1,500-foot-per-cable segment limit to a maximum distance of 9,800 feet. When used with a transceiver, the repeater can connect thick and/or thin Ethernet cable segments.

G/Ethernet Multiport Repeater: This repeater connects up to seven thin Ethernet cable segments to a thick Ethernet cable segment, or it functions as the central node in a star-configured thin Ethernet cable network. G/Ethernet Multiport Repeater supports up to 210 PCs and contains the same features as the G/Ethernet Repeater.

G/Ethernet Fan Out: This product expands a network into clusters of up to eight star-configured PCs. G/Ethernet Fan Out acts as a transceiver multiplexer, providing the network's full data rate to the eight PCs. Each G/Ethernet Fan Out supports up to eight additional fan out devices, for a total of 64 PCs per cable segment connection. It eliminates the need for an individual transceiver for each connected PC.

Software

Network Operating System

Gateway Communications does not offer network operating system software. G/Ethernet and G/EtherTwist interface cards offer driver software for Novell NetWare 2.0X or greater, Microsoft OS/2 LAN Manager, Banyan VINES, 3Com 3+Open and 3+Share, IBM LAN Server and IBM LAN Manager, TCP/IP, NETBIOS, and other Microsoft NDIS driver-compatible operating systems. G/Token-Ring interface cards offer driver software for Novell NetWare, the IBM PC LAN Program, and other NETBIOS-compatible operating systems. G/Net adapters support Novell NetWare.

However, Gateway has announced that it plans to introduce its own operating system this year. The new operating system will be peer to peer with client/server capabilities and will operate with the G/Ethernet and G/EtherTwist product families.

Communications Software

Gateway provides a variety of additional hardware/software products, including gateways, bridge/routers, and asynchronous communications software.

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SNA Communications

G/SNA Gateway: G/SNA Gateway is a multiuser LAN-to-SNA mainframe link for any NetWare or NETBIOS-based LAN, regardless of the LAN topology or manufacturer. G/SNA Gateway supports high-speed synchronous connections from the network to IBM SNA/SDLC mainframes and supports file transfers, data entry, and batch processing tasks. All LAN users have access to the IBM mainframe, without the need for additional hardware or software. The interface board features an Intel 8MHz 80186 CPU with 512K bytes of dual-ported RAM and includes an RS-232-C interface. RS-422 or V.35 interfaces are available as options at no extra charge.

G/SNA Gateway features both 3270 workstation emulation and 3770 Remote Job Entry (RJE) batch device emulation. The 3270 program can emulate an interactive IBM 3278 or 3279 terminal with file transfer capabilities. The 3770 program provides RJE tasks such as concurrent batch processing, keyboard to disk transfer, print jobs, print routing, and downloading information from the mainframe to the LAN. Three versions of G/SNA Gateway are available, supporting 8, 16, and 32 host sessions or logical units (LUs).

X.25 Communications

G/X25 Gateway: G/X25 Gateway is a family of products that provides multiuser access to remote information using the CCITT X.25 protocol. LAN users can select any of 27 bundled terminal emulators to access information or exchange batch files with dissimilar computers. The G/X25 family functions on NetWare-based networks utilizing Novell's IPX software and on NETBIOS-based LANs using NETBIOS software. All use the synchronous X.25 protocol and feature X.25 session control, packet assembler/diasassembler (PAD) functions, and built-in macros for single-keystroke implementation of commands. There are five products in the family.

G/X25 Gateway 64: This product uses Gateway Communications' Wide area Network Interface Module (WNIM) 186, featuring an on-board Intel 80186 processor and 512K bytes of dual-ported RAM. It operates at LAN-to-host speeds of up to 64K bps and supports up to 254 concurrent user sessions.

G/X25 Gateway: This product features Gateway's WNIM Z80 hardware adapter, providing up to 64 virtual circuits to the LAN and transmitting data at 19.2K bps through each of two ports.

G/X25pc: This is a single-user version of G/X25 Gateway.

G/X25 Gateway & Bridge: This is a gateway and bridge/router that combines the capabilities of G/X25 Gateway with those of G/Remote Bridge.

G/X25 Gateway & Bridge 64: This product offers the same functions as G/X25 Gateway & Bridge while using the WNIM 186 to operate at 64K bps.

Bridge/IPX Router Communications

G/Remote Bridge: G/Remote Bridge is an IPX router that connects two or more remote NetWare-based LANs, regardless of LAN topology or hardware. Connections to remote networks are completely transparent to the user, making remote access seem like a local connection. Users log on to remote file servers using familiar NetWare commands, eliminating the need to learn new commands. G/Remote Bridge operates at speeds up to 19.2K bps; supports up to 64 LAN connections through two RS-232 ports; and features data compression (4:1 to 10:1 ratios), a high-speed File Transfer Module (available as a separate product called Zip Zap), and a WNIM Z80 co-processor adapter.

G/Remote Bridge 64: G/Remote Bridge 64 is an enhanced version of G/Remote Bridge. It is designed for installations requiring speeds up to 64K bps, and it includes a WNIM 186 co-processor adapter to connect as many as 128 LANs simultaneously.

Zip Zap: Zip Zap is LAN-to-LAN file retrieval and transfer software. It operates in conjunction with the G/Remote Bridge family over telephone circuits, public data networks (PDNs), or direct hard-wired connections. Zip Zap uses a streaming block technique for data transfer.

Asynchronous Communications

G/Async Gateway: G/Async Gateway is an asynchronous multiuser communications gateway for Novell NetWare LANs. It provides LAN users with outbound communications links and inbound access to the LAN from remote PCs. It supports transmission speeds up to 19.2K bps and up to four concurrent sessions between the LAN and remote value-added networks, mainframes, midrange systems, and service bureaus. G/Async Gateway includes a WNIM Z80 hardware adapter and more than 10 terminal emulators. It also includes ASCOM IV and pcANYWHERE remote PC-to-PC software.

G/Async II Gateway: G/Async II Gateway contains all of the features of G/Async Gateway while adding Network Communications Services Interface (NCSI) software. This software provides a communications interface that is supported by most of the popular terminal emulation software packages on the market.

G/Async 100: This product is an outbound communications software package for LAN users that provides access to local or remote resources such as mainframes, midrange systems, bulletin boards, and on-line services. G/Async 100 allows network users to gain access to any modem physically connected to a PC on the LAN by

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using a software routing feature that dynamically allocates available modems through a pooling method. It is available in three versions with support for single modems, 2 to 5 modems, and 6 to 20 modems.

G/Async 200: This product is an inbound communications software package that permits a remote PC to gain access to any NetWare or NETBIOS-based LAN, take control of one of any number of designated password-protected workstations, and manipulate and download files as if it were a local workstation. G/Async 200 consists of Redirector, Processor, and network personality software modules.

TCP/IP Communications

Gateway Communications offers TCP/IP communications capabilities for its G/Ethernet and G/EtherTwist networks by combining its own software drivers with FTP Software's PC/TCP product.

PC/TCP: PC/TCP software is a collection of programs that implement the standard TCP/IP protocol family for IBM PCs and compatibles running DOS. Using PC/TCP, G/Ethernet and G/EtherTwist users gain access to a variety of other PCs, network technologies, and operating systems that are connected to a TCP/IP internet. Features available with PC/TCP include file transfer, remote login, electronic mail, printing, remote commands, network testing, and access to remote backup facilities and user information.

PC/TCP Plus: PC/TCP Plus includes all the features and functions of PC/TCP, plus functional access to DOS applications and files stored on Sun Microsystems' Network File System (NFS) protocol-compliant servers.

Network Management

EtherStat: In June 1991, Gateway introduced EtherStat, a network monitor software utility for Ethernet LANs. EtherStat monitors, captures, and displays statistical information for use by network managers in network performance analysis and troubleshooting. It installs on any non dedicated PC workstation with a minimum of 256K bytes of RAM and either a G/Ethernet AT, G/EtherTwist AT, or G/EtherTwist AT Hub adapter.

ComSystem

This product is an integrated multifunction, multiprotocol, multiuser communications system that provides LAN users with concurrent, realtime access to remote systems through a single, configurable communications server. It includes multitiered software modules linked by Gateway's Interactive Compatibility Software (ICS)—a communications kernel with installation configuration software; selectable communications load modules; network/communications monitoring and diagnostic software; and a choice of DOS, NetWare, or NETBIOS interface shells.

In its base configuration, ComSystem functions as a gateway, a router, or a gateway and router.

SNA 64 Gateway: This gateway provides multiuser connectivity to IBM mainframes using a synchronous line connection and SDLC. It provides 3270 and 3770 RJE emulation.

X.25 64 Gateway: This gateway uses the CCITT X.25 protocol for remote communications with any X.25 device. It performs all PAD functions, features full X.25 session control, and includes a platform for custom configuration of single-keystroke command sets.

IPX Router 64: This router allows transparent connectivity of remote NetWare LANs; it connects up to 128 LANs simultaneously.

X.25 Gateway and Router 64: This product combines the features of an X.25 gateway with an IPX router through one X.25 link.

Support

Gateway's products are supported by its authorized distributors as well as by Gateway Communications. All resellers are trained to assist in network installations and are equipped to provide continuing support. Gateway offers free telephone support for all product users. A toll-free number is available. In North America, support lines are open Monday through Friday from 6:00 a.m. to 5:30 p.m. Pacific time. Europe is supported through Gateway's U.K. Support Center.

Installation: Gateway installations are handled through its authorized distributors.

Training: Initial training is provided free of charge to Gateway Communications' distributors. Gateway also provides technical training seminars on networking and communications.

Warranty: Gateway provides a one-year warranty on all hardware sold through authorized resellers.

Maintenance: Gateway offers an advance replacement program beyond the one-year warranty.

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Equipment Prices

	Purchase Price ($)
Ethernet Products	
G/Ethernet PC Adapter	370
G/Ethernet AT Adapter	445
G/Ethernet MC Adapter	495
G/Ethernet 8 Adapter	250
G/Ethernet 16 Adapter	300
G/EtherTwist PC Adapter	300
G/EtherTwist AT Adapter	348
G/EtherTwist MC Adapter	460
G/EtherTwist Hub (11-port version)	1,995
G/EtherTwist Hub (22-port version)	3,195
G/EtherTwist AT Hub Adapter	800
G/EtherTwist AT Hub Expander	400
G/Ethernet Transceiver	275
G/EtherTwist Transceiver	150
G/Ethernet Repeater	1,250
G/Ethernet Multiport Repeater	2,695
G/Ethernet Fan Out	995
Token-Ring Products	
G/Token-Ring PC Adapter	595
G/Token-Ring AT Adapter	695
G/Token-Ring Multistation Access Unit (MAU) (4-port version)	395
G/Token-Ring Multistation Access Unit (MAU) (8-port version)	660
G/Net Products	
G/Net Adapter	395
G/Net VS Adapter	595
Communications Products	
G/SNA Gateway (8 LUs)	2,580
G/SNA Gateway (16 LUs)	3,580
G/SNA Gateway (32 LUs)	4,580
G/X25 Gateway	1,895
G/X25 Gateway 64	2,995
G/X25 Gateway & Bridge	2,495
G/X25pc	895
G/Remote Bridge	1,595
G/Remote Bridge 64	2,495
Zip Zap	300
G/Async Gateway	1,595
G/Async II Gateway	1,895
G/Async 100 (1 modem support)	395
G/Async 100 (2-5 modem support)	695
G/Async 100 (6-20 modem support)	995
G/Async 200	395
PC/TCP (1 user)	400
PC/TCP (20-49 users)	175 per user
PC/TCP Plus (1 user)	490
PC/TCP Plus (20-49 users)	230 per user
EtherStat	250
ComSystem	6,995

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