

C o n t r o l l e r S o l u t i o n s

e-Twin@x Controller™

Complete hardware and software solution that provides a secure connection to the AS/400 over the Internet and empowers your local or remote Twinax network to support TCP/IP



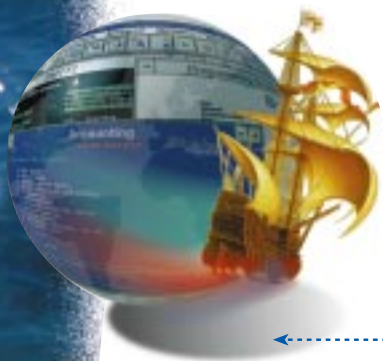
Overview

The e-Twin@x Controller is a hardware and software product that adds the benefits of a LAN to an existing Twinax infrastructure. With the e-Twin@x Controller, users can access the AS/400 securely over the Internet and use e-mail, Microsoft Networking, and Lotus Notes on any BOS, IBM, or IBM-compatible Twinax card connected to any AS/400 running OS/400 V3R2 or higher. When used as a remote

controller, it replaces the SNA/APPC protocol with the TCP/IP protocol, which is easy to support, easy to configure and routable. Innovative data compression techniques, combine with the built-in segmentation of Twinax topology for a fast, segmented, and reliable network.

Advantages

- Provides IP over Twinax connection to a local or remote AS/400, allowing Twinax-attached PCs to benefit from IP applications such as e-Mail, Web browsers and Microsoft Networking
- Replaces SNA connectivity and Anynet protocol with simple, relatively easy-to-configure TN5250e TCP/IP
- Serves as a secure, low cost connection from your remote branches to the AS/400 using the Internet, saving a fortune in leased line expenses
- Allows up to 14 devices to run on a single Twinax line, in any combination of dumb terminals, Twinax printers and Windows 95/98/NT/2000 PCs
- Contains sophisticated IP compression algorithms which enable Twinax-connected IP devices to run up to 5 times faster when used with BOS IP over Twinax drivers
- Includes a built-in 2 - or 6-port* Remote Access Server (RAS), complete with AS/400 client RAS software, built-in firewall and support for RADIUS standards
- Housed in a compact 1 U communications controller that fits into standard 19" rack-mount communications cabinets
 - Supports up to 112 Twinax devices; upgrades to expand the number of devices supported from 8 up to 56, are software-based and can be applied either on-site or remotely, via the Internet
 - Allows configuration and management from a standard web browser that accesses the controller via dial up or over the WAN; most changes can be done without restarting the controller
 - Provides an interface to Citrix Metaframe supporting Twinax technology or other corporate intranet computing for PCs using IP over Twinax
 - Supports e-mail on dumb Twinax terminals*



*Optional

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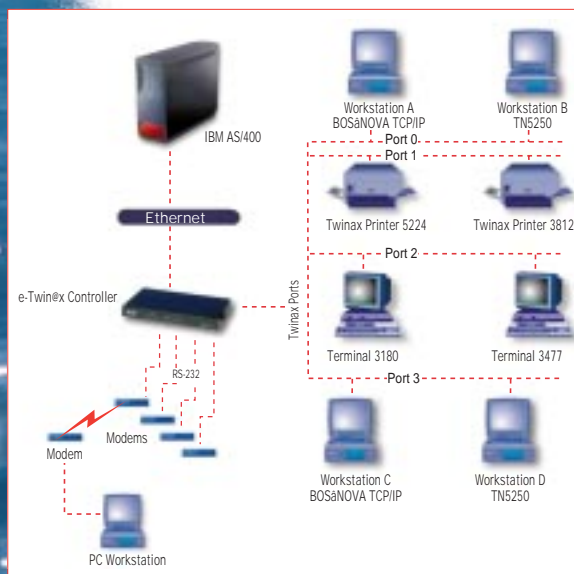
e-Twin@x Controller as an SNA/IP Gateway

When the traditional SDLC connection is replaced with a Wide Area Network (WAN) connection using TCP/IP, the e-Twin@x Controller can be used to maintain legacy Twinax devices (such as high-speed printers and dumb terminals) at your remote sites. In this configuration, all the devices will appear on the AS/400 as TN5250 devices, and all PC devices can connect to the AS/400 either by using dumb terminal emulation or by installing the e-Twin@x version of BOSâNOVA TCP/IP or IBM TCP/IP drivers to connect to the AS/400 over TCP/IP. With the TCP/IP drivers loaded on the PC, the user can take full advantage of the WAN, getting the following benefits:

- Support for e-Mail
- Integration with NT or Novell file servers
- Printer and file sharing on the network
- Ability to access and run Intranet applications
- Implementation of server-centric computing such as Citrix Metaframe

The e-Twin@x Controller connects to the network using a standard network hub, which is attached to the local office via a standard IP router. Ethernet PCs can be connected to the same network hub as the controller for mixed Ethernet and Twinax infrastructures.

Turbocharge your IP over Twinax Traffic



The e-Twin@x Controller uniquely features IP compression over Twinax, a result of the fact that BOS manufactures **both** the client IP driver and the controller. Powerful IP compression algorithms compress the data packets that pass across the Twinax network to the controller, enabling compression ratios of on an average of 3:1. Once they reach the controller, the packets are uncompressed and placed on the Ethernet, enabling the system to use the extra bandwidth supported by the Ethernet network. When combined with BOS Express cards, this can mean an increase in throughput of up to 10 times that of a regular Twinax PC card!

Other performance enhancements of the e-Twin@x Controller include:

- Offsetting the extra CPU overhead on the host caused by using IP over Twinax
- Connection to the AS/400 using the high performance TN5250e protocol

Sample e-Twin@x Controller Configuration for Local Environment, Including RAS

E-mail on Dumb Twinax Terminals*

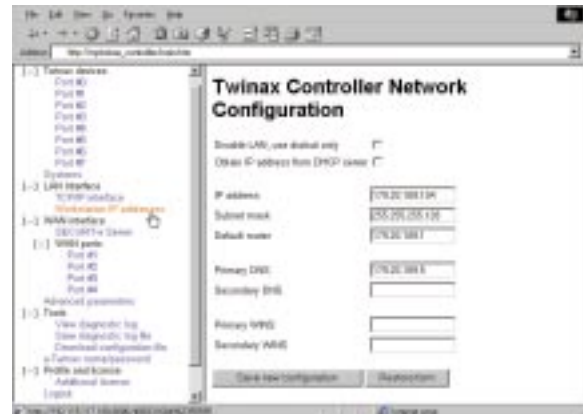
Basic e-mail functionality, known as TwinMail™, is supported on dumb Twinax terminals. In addition to sending and receiving e-mail, TwinMail™ includes an address book.

*Optional

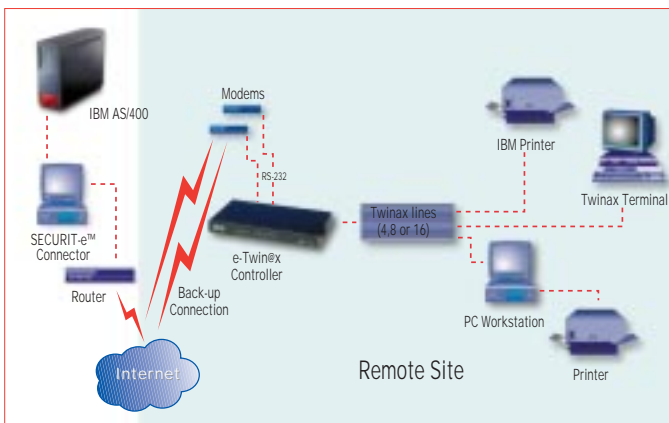
Configuration and Maintenance with Ease

The e-Twin@x Controller is managed via a standard Web browser, which enables all of the units to be managed from a central point anywhere on the network, or via a modem dialed in to the RAS. Configuration can also be done using a dumb terminal attached to any of the ports. The controller software can also be updated over the network or via dial-in. Terminals, PCs or printers can be added to the controller very simply using a plug-and-play feature in Auto mode. The device name can be changed at any time, without restarting the controller. The controller also verifies the host connection, including which PTFs are installed for each OS version.

The e-Twin@x Controller can be configured and managed via a standard Web browser.

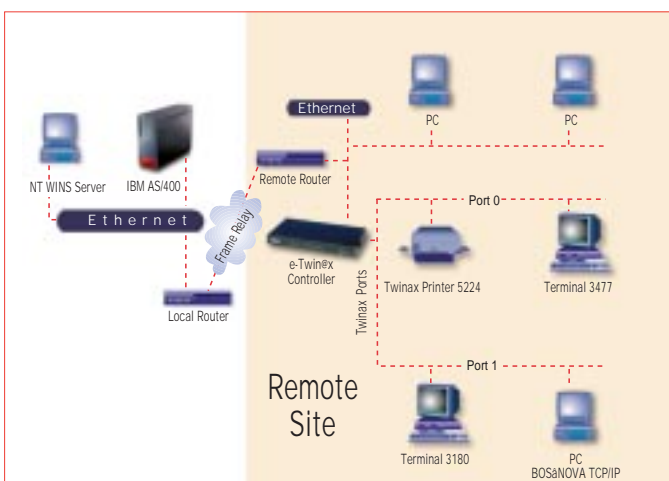


Secure Reliable Low Cost Connection using the Internet



e-Twin@x Controller as a Secure Connection to the AS/400 over the Internet

The e-Twin@x Controller can be connected to the AS/400 via the Internet, saving you a fortune in leased line expenses. The requirements are minimal: at the local site you need a fixed connection to the Internet and BOS' Java SECURIT-e Server™, which can be run on the AS/400, and any PC or MiniComputer with a Windows, Unix-based or Linux operating system. At the remote site you need a connection to the Internet, either via a dial up account or using a leased line to a local ISP. 5250 traffic, encrypted via industry-standard algorithms, flows from the controller to the Java-based server, then the data is deciphered and sent to the AS/400. Using this connection method the customer can save thousands of dollars a year on long-distance leased line costs. The e-Twin@x Controller can initiate the dial-up to the Internet when the first user tries to access the AS/400. It also supports two parallel connections to two different ISPs, allowing increased bandwidth, speed and reliability.



The e-Twin@x Controller can connect mixed remote Twinax and LAN environments using a RAS over a frame relay connection via routers.

PC Remote Access

The e-Twin@x Controller supports a 2 - or 6-port Remote Access Server (RAS), providing remote PC users with network access in addition to AS/400 access. Remote users can dial in to the e-Twin@x Controller and gain access to the network using the RAS. This RAS includes a firewall for restricting access per user to specific IP devices or ports (e.g. one group of users may be allowed access to the AS/400 for display emulation, but not file transfer). The RAS also automatically logs all remote access activity. The RAS component can use the services of any RADIUS server for authentication, if required.

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Technical Specifications

Devices Supported

Supports virtually any Twinax-attached terminal, although for the later models not all features are supported (such as shared addressing, mouse support, imaging, etc.). Here is a partial list:

5251, 5291, 3179-2, 3180, 3196, 3197C, 3197D, 3477, 3476, 3486, 3487

Printers

SCS Printers

3812, 4214, 4245, 5219, 5224, 5256, 6262, 4234, 6400

IPDS Printers

3812, 4224, 4230, 4234, 4028

Workstations

Supports all PCs with TDLC emulation and BOS, IBM or IBM-compatible ISA emulation cards.

Host System Requirements

- OS/400 V3R2 or higher
- For device naming and SCS printing functionality the correct PTF must be installed. (See Web site for details.)
- Ethernet LAN connection

Physical Specifications

Electrical: Universal input 100v-240v, 0.6A, 50/60Hz

Physical Dimensions:

- Width: 17.4" / 44.1 cm; with brackets: 19" / 48.3 cm
- Height: 1.64" / 4.16 cm (1U)
- Depth: 9.8" / 25 cm
- Weight: 5.1 lbs / 2.3 kg

Ordering Information

| PID | Product Name |
|-----|--------------|
|-----|--------------|

| | |
|------|-----------------------------------------------------------------------------------------|
| 4610 | e-Twin@x Controller Model II - 10: Supports up to 10 Twinax devices (non-upgradeable) |
| 4616 | e-Twin@x Controller Model II - 16: Supports up to 16 Twinax devices |
| 4628 | e-Twin@x Controller Model II - 28: Supports up to 28 Twinax device |
| 4656 | e-Twin@x Controller Model II - 56: Supports up to 56 Twinax devices |
| 4612 | e-Twin@x Controller Model II - 112: Supports up to 112 Twinax devices |
| 4600 | 8-port Twinax connector brick |
| 4601 | 4-port RAS: Remote Access Server for e-Twin@x Controller (pre-requisite:4602) |
| 4602 | SECURIT-e Server: Secure access to AS/400 over the Internet (includes 2 or 6-port RAS) |
| 4604 | TwinMail: e-Mail Support for Dumb Terminals |

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www.e-twinaxcontroller.com

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