



SuperStack II NETBuilder SI Platforms

Secure, flexible WAN access for enterprise networks

The new SuperStack II NETBuilder SI (Secure Internet/Intranet) devices deliver today's best overall WAN value with all the features and functionality you need for an affordable, complete remote office solution. The platforms ensure predictable system performance and offer industry-leading flexibility as the only remote device with two WAN ports, two LAN ports, and a telco connection.



Designed to meet today's network challenges and tomorrow's growth, the SuperStack® II NETBuilder® SI (Secure Internet/Intranet) routers future-proof your network, fitting into any WAN environment and providing all the functionality you need for migrating regional and branch offices to Fast Ethernet and new WAN services.

A range of models gives you the choice of an integrated 56/64 Kbps DSU/CSU, FT1/T1 DSU/CSU or an integrated NT1 solution for ISDN U interface plus two serial T1/E1 WAN connections. This provides an easy migration path and

comprehensive backup choices to meet the changing needs of your network.

Security is a big concern for today's system administrators who need to provide users with information-sharing capabilities and Internet access, while maintaining the integrity of their enterprise networks. The SuperStack II NETBuilder SI devices provide complete network security with two 10/100BASE-T ports that segment two LANs from each other, and an extremely easy-to-use NCSA-certified IP firewall, to give network users secure WAN access to enterprise networks and the Internet.

Key Benefits:

■ **Robust security.** The industry's most flexible, easy-to-use NCSA-certified firewall gives your network the ultimate protection from access violations from the Internet.

■ **Performance and reliability.** The SuperStack II platform provides uncompromising, predictable system performance along with advanced protection against power failure.

■ **Easy installation.** 3Com Boundary Routing® system architecture sets a standard for routing simplicity and installation at the remote site and is truly plug and play.

■ **Interoperability.** Based on industry-accepted standards, the platforms communicate and interoperate with virtually any vendors' products.

■ **Centralized management.** Diagnostic features and centralized remote management simplify network administration, saving you money.

■ **IBM/legacy support.** With comprehensive legacy support, the platforms function effectively in even the most complex IBM enterprise networks.





The new SuperStack II NETBuilder SI platforms deliver today's best overall WAN value with built-in, easy-to-use IP firewalls that provide secure LAN-to-WAN traffic as well as protection from Internet intrusion. Predictable system performance, robust multiprotocol routing, and integrated telecommunications functionality make the SuperStack II NETBuilder SI devices the best available solution for changing wide area networking needs in a secure environment.

The Best WAN Value

Predictable, affordable system performance make the platforms the most cost-effective, complete regional office solution. The platforms can either be used as a remote office connection or as a central site solution in combination with 3Com OfficeConnect® NETBuilder routers in remote branch offices. This configuration is the most cost-effective regional solution in today's remote access market.

A SuperStack II NETBuilder SI platform at the central site, with OfficeConnect NETBuilder routers at remote sites, provides the industry's most cost-effective remote access regional solution.

Cost-Saving Bandwidth Grooming

NETBuilder Bandwidth Grooming provides the cost-saving tools to prioritize and utilize limited bandwidth on a WAN link, providing solutions for meeting the challenge of speed mismatch between LAN and WAN, so you get the most from your WAN investment. Bandwidth Grooming features in the SuperStack II NETBuilder SI devices reduce WAN bandwidth utilization and packet transmission time with data prioritization to organize traffic into high-medium-low transmission priority queues, bandwidth aggregation for bundling of available links into one flexible pipe, and protocol reservation to assign a fixed percentage of the available bandwidth to a particular protocol or traffic type.

Complete Robust Security

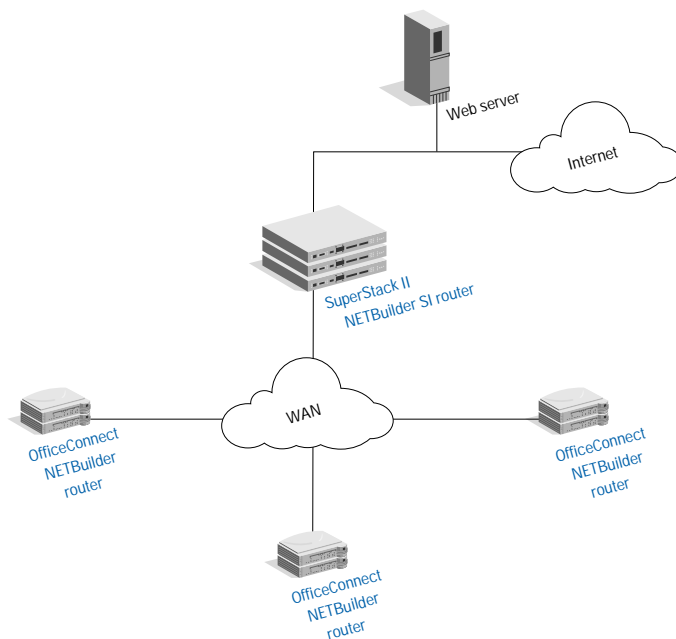
The platforms provide robust network security with built-in NCSA-certified IP firewalls at every network interface. The firewall includes easy-to-use pre-defined filters to guard against a number of intrusions.

You can also define your own filters and use the on-board traffic simulator to send test packets through the firewall to confirm the configuration's security.

Network Address Translation

SuperStack II NETBuilder SI platforms support Network Address Translation (NAT), allowing local TCP/IP workstations and devices to share one IP address but still act as independent entities. The device serves as an Internet gateway and intercepts the message, determines the source, and matches it with the source address, then substitutes the address with a single unique public IP address.

NAT allows enterprises with private IP networks to reuse addresses internally and also provides address redirection and load balancing of TCP traffic, smoothing integration with the Internet. NAT also strengthens security because IP addresses on the internal network are hidden from outside connections, preventing direct access to an inside host.

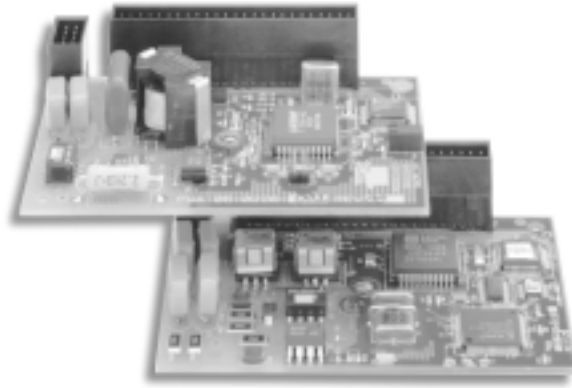


Complex Legacy Support

The SuperStack II NETBuilder SI platforms provide a complete legacy solution for even the most complex IBM environments, with comprehensive legacy support for DTE/DCE, bisync, polled async, BSC, SDLC, and QLLC.

Predictable Performance with the SuperStack II Platform

The unique SuperStack II system gives the SuperStack II NETBuilder SI platforms unmatched performance and reliability advantages, setting them apart from comparable platforms. 3Com SuperStack II systems integrate router operations for WAN connections with hubs and switches for local networking with configurations that provide an added level of flexibility and fault tolerance, including RPS, UPS, and DC power. Predictable system performance is guaranteed with the ability to perform simultaneous functions, such as compression and data prioritization, without compromising the ability to handle as many additional packet-handling functions as needed. 3Com is the only vendor to offer a complete Fast Ethernet solution in such a wide range of stackable platforms.



SuperStack II NETBuilder SI telco interface modules offer flexibility for changing WAN needs.

Cost-Effective Flexibility with Telco Interface Modules

The SuperStack II NETBuilder SI platforms have all the functionality you need right from the day you purchase them. When your network requirements change, or you want to change WAN services, you can easily and affordably convert the existing interface by replacing the telco modules.

SuperStack II NETBuilder SI NT1 Module

The SuperStack II NETBuilder SI NT1 module provides integrated NT1 solutions for ISDN U interfaces by automatically converting an S/T base unit to ISDN U without the need for additional exterior hardware.

SuperStack II NETBuilder SI 56/64 Kbps DSU/CSU Module

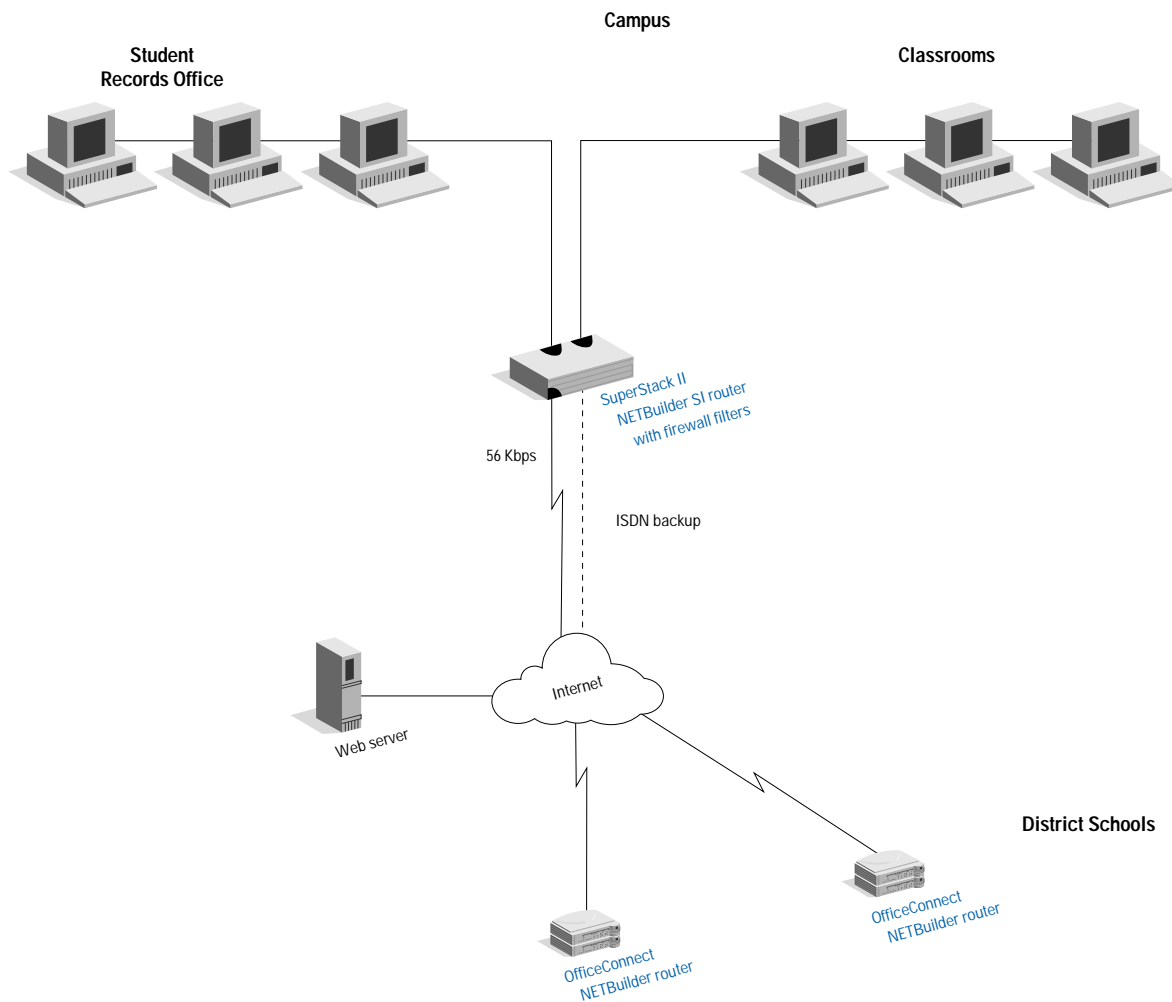
The SuperStack II NETBuilder SI 56/64 Kbps DSU/CSU module plugs directly into the telco port of the S/T base device, providing an integrated DSU/CSU solution. The module is standards-based to ensure interoperability with a wide range of vendors' equipment.

SuperStack II NETBuilder SI T1/FT1 DSU/CSU Module

The SuperStack II NETBuilder SI T1/FT1 DSU/CSU module plugs directly into the telco port of the S/T base device, providing an integrated T1/FT1 DSU/CSU solution. The module is standards-based to ensure interoperability with a wide range of vendors' equipment and is scheduled for release in early 1998.

Flexible WAN Services

The routers' FlexWAN ports support leased dial, Frame Relay, X.25, and SMDS, with FlexWAN cables that support virtually all electrical interfaces including RS-449, RS-232, V.35, EIA 530, X.21, as well as DTE and DCE connections. All these features combine to give you the market's most flexible WAN services choice in a single platform.



The SuperStack II NETBuilder SI platform protects confidential student records from unauthorized access, and provides firewall security to protect the campus from possible Internet hackers.

SMART Processing

SMART Processing is 3Com's commitment to providing the lowest total cost of network ownership by offering robust yet simple LAN-to-WAN solutions. SMART Processing transforms today's complex WAN access into secure, scalable integrated IP-based solutions that deliver:

- **Security.** Seamless access to public or private networks while preserving network integrity
- **Control.** Powerful Web-based applications for simplified network management
- **Scalability.** Simple remote office connectivity with predictable network performance and future growth capabilities
- **Availability.** Embedded reliability to meet the service requirements of every business

Specifications

SuperStack II NETBuilder SI Routers

Connections

43x Series:

- 2 Ethernet LAN ports (10/100BASE-T)
- 2 FlexWAN serial ports
- 2 ISDN ports with S/T interface

44x Series:

- 2 Ethernet LAN ports (10/100BASE-T)
- 2 FlexWAN serial ports
- 2 ISDN ports with U interface

45x Series:

- 2 Ethernet LAN ports (10/100BASE-T)
- 2 FlexWAN serial ports
- 1 WAN port with integrated 56/64 Kbps CSU/DSU

46x Series:

- 2 Ethernet LAN ports (10/100BASE-T)
- 2 FlexWAN serial ports
- 1 WAN port with T1/FT1 CSU/DSU

Dimensions

- Width: 130.5 cm (12.0 in)
- Height: 14.3 cm (1.7 in)
- Depth: 143.9 cm (17.3 in)
- Weight: 14.6 kg (10.0 lb)

Environmental

- Operating: 0 to 50°C
- Nonoperating: -40 to 75°C
- Humidity: 8 to 80% noncondensing
- Thermal: 195 maximum BTU per hour

Line Speeds

- Ethernet 10/100 Mbps: 1.2 Kbps to 2.048 Mbps
- WAN: 2 T1/E1

Performance

- WAN forwarding: 3400 64-byte pps (T1/E1)
- Filtering: 17,000 pps

System Requirements

For Boundary Routing configurations, a SuperStack II NETBuilder router or a NETBuilder II® router is required at the central site.

MTBF:

110,000 hours, calculated Bellcore

Protocol Support

APPN Router:

APPN, SDLC, HDLC, bisync, BGP, XNS, polled async

IP/IPX Router:

IP, IPX

Full Protocol Router:

IP, IPX, AT, DECnet, VINES, OSI, DLSw, SDLC, ADLC, polled async, bisync, BGP, XNS

Power

- 100 to 240 VAC
- Consumption: 40 W AC; RPS 25 W

Agency Approvals

Product Safety

Canada: CSA certified, ref. CSA-22.2, No. 950

European Union: TUV licensed, ref. EN60950, 2nd ed.

U.S.: UL listed, ref. UL 1950

Emissions

Canada: 3Com declaration, ref. EN55022, Class A, CAN/CSA, C108.8-M1983

European Union: 3Com declaration, ref. EN55022, Class B

Japan: VCCI Grant of Approval, ref. VCCI, Class 1 ITE

U.S.: 3Com verified, ref. FCC Part 15, Class A IEC EN55022 (C.I.S.P.R. 22), Class B 1985

Immunity:

European Union: 3Com declaration, ref. EN50082-1

Telecommunications

Canada: Certified ref. CS-03

European Union: Type approved, ref. NET1, NET2, I-CTR2, I-CTR3, CE marked under Telecom directive (91/263/EEC)

Japan: JATE Approved, ref. Technical Requirements Compliance approval

ISDN Switch Support

- EuroISDN
- North American National ISDN-1 (NI-1)
- AT&T and NorTel custom
- Austel

Warranty

1 year

FlexWAN Serial Port

- Data speeds up to T1/E1 (all packet sizes)
- WAN services: Frame Relay, X.25, PPP leased or dial, SMDS
- Internal clocking for DCE (IBM/legacy connections)
- Auto-sensing of cable type: RS-232 (DTE or DCE), V.35 (DTE or DCE), X.21 (DTE), RS-449, EIA-530

Ordering Information

SuperStack II NETBuilder SI Platforms

SuperStack II NETBuilder SI 431 Boundary router	3C8431
SuperStack II NETBuilder SI 432 IP/IPX router	3C8432
SuperStack II NETBuilder SI 433 Boundary Routing software for SNA router	3C8433
SuperStack II NETBuilder SI 436 APPN router	3C8436

SuperStack II NETBuilder SI 437 Full protocol router: IP, IPX, AppleTalk, DECnet, VINES, OSI, SDLC, DLSw, LLC2 Tunnel	3C8437
SuperStack II NETBuilder SI 438 Connection services router	3C8438
SuperStack II NETBuilder SI 441 U Boundary router	3C8441
SuperStack II NETBuilder SI 442 U IP/IPX router	3C8442
SuperStack II NETBuilder SI 443 U Boundary Routing software for SNA router	3C8443
SuperStack II NETBuilder SI 446 U APPN router	3C8446
SuperStack II NETBuilder SI 447 U Full protocol router: IP, IPX, AppleTalk, DECnet, VINES, OSI, SDLC, DLSw, LLC2 Tunnel	3C8447
SuperStack II NETBuilder SI 448 U Connection services router	3C8448
SuperStack II NETBuilder SI 451 K Boundary router	3C8451
SuperStack II NETBuilder SI 452 K IP/IPX router	3C8452
SuperStack II NETBuilder SI 453 K Boundary Routing software for SNA router	3C8453
SuperStack II NETBuilder SI 456 K APPN router	3C8456
SuperStack II NETBuilder SI 457 K Full protocol router: IP, IPX, AppleTalk, DECnet, VINES, OSI, SDLC, DLSw, LLC2 Tunnel	3C8457
SuperStack II NETBuilder SI 458 K Connection services router	3C8458
SuperStack II NETBuilder SI 461 T Boundary router	3C8461
SuperStack II NETBuilder SI 462 T IP/IPX router	3C8462
SuperStack II NETBuilder SI 463 T Boundary Routing software for SNA router	3C8463
SuperStack II NETBuilder SI 466 T APPN router	3C8466
SuperStack II NETBuilder SI 467 T Full protocol router: IP, IPX, AppleTalk, DECnet, VINES, OSI, SDLC, DLSw, LLC2 Tunnel	3C8467
SuperStack II NETBuilder SI 468 T Connection services router	3C8468
SuperStack II NETBuilder SI Modules	
SuperStack II NETBuilder SI NT1 Module	3C8041U
SuperStack II NETBuilder SI 56/64 Kbps CSU/DSU Module	3C8042K
SuperStack II NETBuilder SI T1/FT1 CSU/DSU Module	3C8043T+

FlexWAN cables for the FlexWAN serial port are sold separately.

FlexWAN Cables

RS-232, DTE, FlexWAN (10 ft)	3C89001
RS-232, DTE, FlexWAN (4 ft)	3C89002
RS-232, DCE, FlexWAN (10 ft)	3C89003
RS-232, DCE, FlexWAN (4 ft)	3C89004
V.35, DTE, FlexWAN (10 ft)	3C89005
V.35, DTE, FlexWAN (4 ft)	3C89006
V.35, DCE, FlexWAN (10 ft)	3C89007
V.35, DCE, FlexWAN (4 ft)	3C89008
X.21, DTE, FlexWAN (10 ft)	3C89009
X.21, DTE, FlexWAN (4 ft)	3C89010
X.21, DCE, FlexWAN (10 ft)	3C89011
X.21, DCE, FlexWAN (4 ft)	3C89012
RS-449, DTE, FlexWAN (10 ft)	3C89013
RS-449, DTE, FlexWAN (4 ft)	3C89014
RS-449, DCE, FlexWAN (10 ft)	3C89015
RS-449, DCE, FlexWAN (4 ft)	3C89016
EIA-530, DTE, FlexWAN (10 ft)	3C89017
EIA-530, DTE, FlexWAN (4 ft)	3C89018
V.35 DTE Extended Shroud (10 ft)*	3C89019
V.35 DTE Extended Shroud (4 ft)*	3C89020
V.35 DCE Extended Shroud (10 ft)*	3C89021
V.35 DCE Extended Shroud (4 ft)*	3C89022

+ Scheduled for release in early 1998

* The extended shroud versions of the V.35 cables are used with selected IBM equipment. Most devices do not require an extended shroud.

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