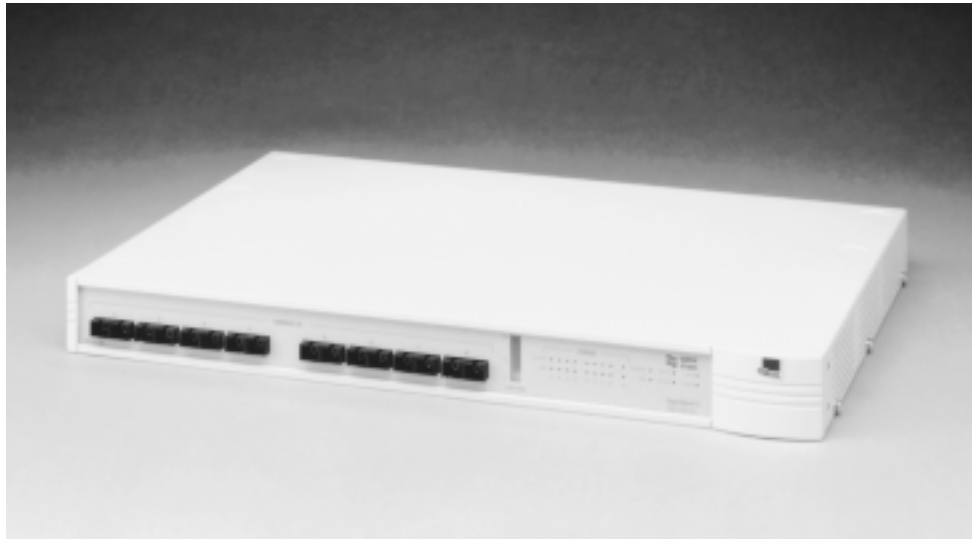# SuperStack® II Hub 1000 SX
Gigabit Ethernet Full-duplex Repeater

With switch-like performance, the Hub 1000 SX provides low-cost connections to servers, desktops, and switches

A SuperStack II Hub 1000 SX 8-port full-duplex repeater combines the high performance of Gigabit Ethernet with the economy of a hub. Ideal for the server farm, data center, or power PC users that require up to 1000 Mbps peak bandwidth, it quickly clears bandwidth congestion.

The 3Com® SuperStack® II Hub 1000 SX brings economical 1000 Mbps bandwidth to Ethernet networks that don't require comprehensive management, but do require high performance, ease of use, and reliability. It is ideal for upgrading 10/100 server connections to a gigabit network, aggregating 10/100 switches with gigabit uplinks to the backbone, and delivering 1000 Mbps bandwidth to users who work with imaging, publishing, CAD/CAM, and other applications that require high peak bandwidth.

The 3Com SuperStack II Hub 1000 SX is the world's easiest-to-use and lowest-cost Gigabit Ethernet full-duplex repeater—*a.k.a.* buffered distributor or non-filtering switch. Manufactured by 3Com, the world's leading supplier of LAN hubs and a pioneer in Gigabit Ethernet, this standalone hub interoperates with other standards-based equipment to ensure you can implement a complete 1000 Mbps system, today.

Key Benefits:

■ **High performance that's economical.** Delivering gigabit connections at entry-level prices, the hub's full-duplex repeater architecture delivers up to 2 Gbps peak bandwidth.

■ **Simple to install and use.** Installation and operation require no special expertise. The hub is "plug and play," yet preset configuration parameters can be modified via a serial console port in certain cases. No management software is needed; LEDs let you spot faults and check hub bandwidth utilization.

■ **Standards-based.** The hub complies with the IEEE 802.3z Gigabit Ethernet and IEEE 802.3x Flow Control specifications.

■ **Flexible backbone connections.** In addition to its eight full-duplex 1000BASE-SX downlink ports, the hub has a slot for an optional industry-standard Gigabit Interface Converter (GBIC) backbone uplink module. This GBIC based uplink module gives the customer the flexibility to support various media types (multimode fiber, single-mode fiber, and coax cable) and distance requirements.

■ **End-to-end solutions.** Together with 3Com Gigabit EtherLink® Server NICs, SuperStack II stackable switches, and CoreBuilder™ backbone switch platforms, you can implement an end-to-end 3Com Gigabit Ethernet system.

SUPER STACK®

Why Gigabit Ethernet?

When you see your network straining under the load of growing numbers of users and data-intensive applications, you're not alone. Many network administrators have added bandwidth by bringing switched Ethernet and Fast Ethernet out to the edges of the network. But doing this can place too much of a bandwidth burden on the LAN backbone. The solution is the next level in bandwidth evolution: stepping up to Gigabit Ethernet on the backbone and servers.

Brings You More Bandwidth and Traffic Control, Economically

Gigabit Ethernet makes an excellent backbone/server solution. Ideal for data-intensive office, intranet, and multimedia applications, it delivers phenomenal bandwidth. What's more, it delivers bandwidth cost-effectively—preserving the Ethernet frame format, supporting existing Ethernet network designs and cabling, and working with your existing traffic management systems.

Integrates Smoothly with ATM, FDDI, and 10/100 Mbps Ethernet

Easily integrated, Gigabit Ethernet helps you maximize your existing investment in network infrastructure.

Fully compatible with Ethernet and Fast Ethernet standards, 1000 Mbps Ethernet retains the traditional simplicity of 10/100 Mbps Ethernet, yet delivers a tenfold increase in backbone bandwidth with minimal impact on your support staff. The extra bandwidth frees you from having to continually tune the network, and helps you accommodate unplanned changes and additions.

For even more bandwidth, you can combine multiple Gigabit Ethernet links into a link aggregation and deploy multi-gigabit interswitch links. Moreover, 1000 Mbps Ethernet complements other existing high-speed systems. 3Com Gigabit Ethernet solutions integrate seamlessly with 3Com ATM systems and offer switched connectivity with FDDI backbones.

The Complete End-to-End Solution

From the edge to the heart of the network, 3Com offers a growing line of Gigabit Ethernet products.

At your network edge, install Gigabit EtherLink Server NICs to get the server capacity needed to support high-density workgroup traffic. For desktops, the SuperStack II Hub 1000 SX full-duplex repeater delivers shared 1000 Mbps bandwidth to users of imaging, publishing, CAD/CAM, and other applications that require high peak bandwidth.

The SuperStack II Hub 1000 SX is also ideal for server farms, letting you aggregate up to eight servers into a 1000 Mbps backbone switch. What's more, the SuperStack II Hub 1000 SX can aggregate 10/100 switches—such as the SuperStack II Switch 1000, 1100, 3000, or 3300— with Gigabit Ethernet uplinks to the backbone. Delivering Gigabit Ethernet at entry-level prices, the SuperStack II Hub 1000 SX full-duplex repeater also ensures peace of mind with 3Com's industry-leading reliability, service and support, and five-year limited warranty.

For dedicated 10/100/1000 switching at the heart of the network, 3Com offers the SuperStack II Switch 3800, 3900, 9000, and 9300 backbone switches, as well as a gigabit switching module for the CoreBuilder 3500, 5000, 7000, and 9000 platforms.

Whether you need higher bandwidth solutions for servers, desktops, the wiring closet or backbone, 3Com Gigabit Ethernet systems help scale your network to new heights in performance.

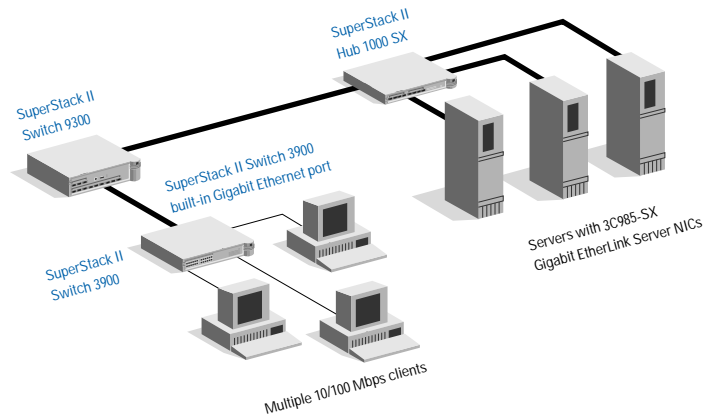### Why a Full-duplex Repeater?

A Gigabit Ethernet full-duplex repeater combines the low-cost and simplicity of a hub with the high performance and efficient throughput of a switch. It is an ideal solution if you are looking for a cost-effective way of adding gigabit bandwidth to your Ethernet network.

A full-duplex repeater is a "hybrid" between a traditional repeater and a switch. Like a traditional repeater, a full-duplex repeater forwards all incoming frames on a port to all other ports. However, like a switch, it provides full-duplex ports, input frame buffers and IEEE 802.3x Flow Control. For higher performance and fair allocation of bandwidth, a full-duplex repeater uses a round-robin method of accessing the hub's internal bus, rather than CSMA/CD, for collision-less frame forwarding.

The SuperStack II Hub 1000 SX:
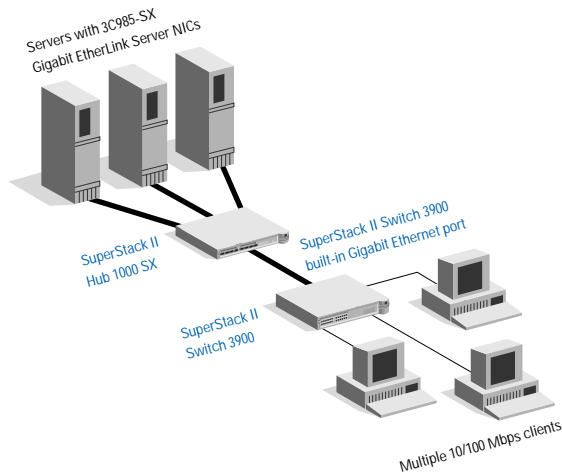# Ideal for Multiple Environments

Aggregating Servers to a Gigabit Ethernet Network

The SuperStack II Hub 1000 SX is an economical way to aggregate up to eight servers into a gigabit backbone switch, such as a SuperStack II Switch 9300. The hub provides Gigabit Ethernet connectivity to the servers, while expanding the number of port connections for the switches.

SuperStack II
Switch 9300

SuperStack II
Hub 1000 SX

SuperStack II Switch 3900
built-in Gigabit Ethernet port

SuperStack II
Switch 3900

Servers with 3C985-SX
Gigabit EtherLink Server NICs
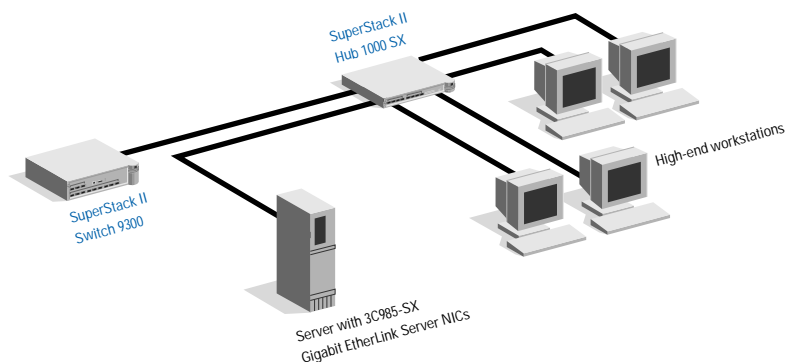
Multiple 10/100 Mbps clients

Aggregating Servers to a Fast Ethernet Network

The SuperStack II 1000 SX is a great way to introduce gigabit bandwidth to aggregate servers into a Fast Ethernet backbone switch, such as a SuperStack II Switch 3900. The hub for servers provides Gigabit Ethernet bandwidth via the Switch 3900 Gigabit Ethernet uplink.

Servers with 3C985-SX
Gigabit EtherLink Server NICs

SuperStack II
Hub 1000 SX

SuperStack II Switch 3900
built-in Gigabit Ethernet port

SuperStack II
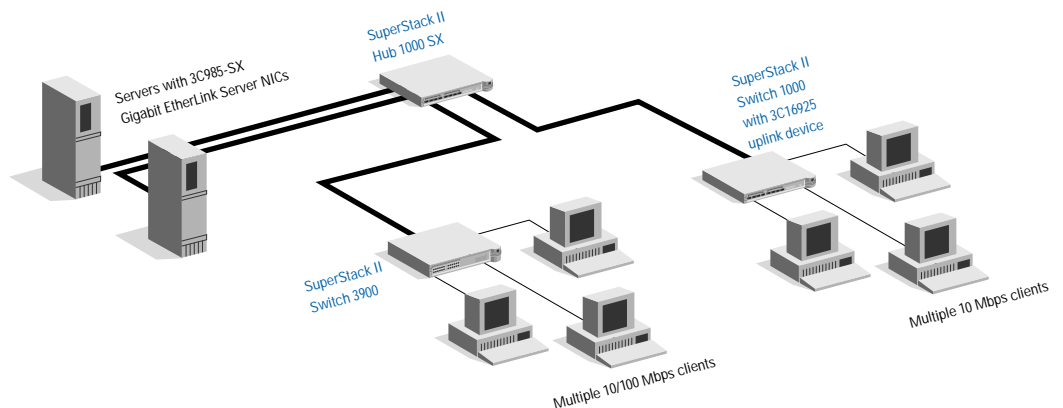Switch 3900

Multiple 10/100 Mbps clients

Bringing Bandwidth to the Workgroup's Power Users

The SuperStack II Hub 1000 SX brings shared 1000 Mbps bandwidth to power users, delivering the bandwidth they require to eliminate the bottlenecks that their applications' peak traffic creates. This solution is ideal for applications such as imaging, CAD/CAM, prepress, 3D graphics, animation, and post production editing.

SuperStack II
Hub 1000 SX

High-end workstations

SuperStack II
Switch 9300

Server with 3C985-SX
Gigabit EtherLink Server NICs

Aggregating 10/100 Switches with Gigabit Uplinks

The SuperStack II Hub 1000 SX is ideal for small/medium-sized networks that want to expand the backbone bandwidth capacity to 1000 Mbps, but aren't quite ready to step up to Gigabit Ethernet switching. By deploying the gigabit uplink modules in 3Com SuperStack II Switch 1000, 1100, 3000, 3300, and 3900 switches, you can use the hub to aggregate the switches for the backbone connection. You can also attach servers to the hub for a complete backbone solution.

Servers with 3C985-SX
Gigabit EtherLink Server NICs

SuperStack II
Hub 1000 SX

SuperStack II
Switch 1000
with 3C16925
uplink device

SuperStack II
Switch 3900

Multiple 10 Mbps clients

Multiple 10/100 Mbps clients

Specifications

SuperStack II Hub 1000 SX Gigabit Ethernet Full-duplex Repeater

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Beijing, China: 86 10 68492 568
Shanghai, China: 86 21 6350 1581
Hong Kong: 852 2501 1111
India: 91 11 644 3974
Indonesia: 62 21 572 2088
Osaka, Japan: 81 6 536 3303
Tokyo, Japan: 81 3 3345 7251
Korea: 82 2 3455 6300
Malaysia: 60 3 715 1333
New Zealand: 64 9 366 9138
Philippines: 632 892 4476
Singapore: 65 538 9368
Taiwan: 886 2 2 377 5850
Thailand: 662 231 8151 5

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43 1 580 17 0

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Netherlands: 31 346 58 62 11

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Edmonton: 1 403 423 3266
Montreal: 1 514 683 3266
Ottawa: 1 613 566 7055
Toronto: 1 416 498 3266
Vancouver: 1 604 434 3266

3Com Eastern Europe/CIS
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Czech/Slovak Republics: 420 2 21845 800
Hungary: 36 1 250 83 41
Poland: 48 22 6451351
Russia: 7 095 258 09 40

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Carrier and Client Access:
  33 1 41 97 46 00

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Munich, Germany: 49 89 627320

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Portugal: 351 1 3404505
Spain: 34 1 509 69 00

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41 844 833 933

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Miami, Florida: 1 305 261 3266
Argentina: 54 1 312 3266
Brazil: 55 11 246 5001
Chile (also serving Bolivia and Peru):
  56 2 633 9242
Colombia: 57 1 629 4847
Mexico: 52 5 520 7841/7847
Peru: 51 1 221 5399
Venezuela: 58 2 953 8122

3Com Mediterraneo
Milan, Italy: 39 2 253011
Rome, Italy: 39 6 5279941

3Com Middle East
971 4 319533

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Finland: 358 9 435 420 67
Norway: 47 22 58 47 00
Sweden: 46 8 587 05 600

3Com Southern Africa
27 11 807 4397

3Com UK Ltd.
Edinburgh: 44 131 240 2900
Ireland: 353 1 820 7077
Manchester: 44 161 873 7717
Marlow: 44 1628 897000

Dimensions and Weight

Width: 17.32 in/44 cm

Depth: 12 in/30.5 cm

Height: 1.72 in/4.36 cm

Weight: 13 lb/5.90 kg

Connectors and Cables

8 1000BASE-SX (SC connector) ports supporting full-duplex transmission over 850 nanometer multimode 62.5/125µ fiber cabling

1 backbone uplink slot supporting an optional Gigabit Interface Converter module for 1000BASE-CX, 1000BASE-SX, or 1000BASE-LX cabling

GBIC Modules

Optional 3Com Gigabit Interface Converter (GBIC) modules:

1000BASE-CX (short-haul coax copper)

1000BASE-SX (850 nanometer short-wave multimode fiber)

1000BASE-LX (1300 nanometer multimode and single-mode fiber)

Power Requirements

AC input voltage: 90 to 264 V, 115 to 230 V nominal

Power Consumption: 65 W maximum

Power Inlet: IEC320

Fuse Protection: 3.15A

Heat Dissipation/Hour: 90 BTU

1 IEC320 power cord is included

Optional SuperStack II Advanced Redundant Power System (Advanced RPS) Power Module Type 2 and Uninterruptible Power System (UPS) are available from 3Com

Environmental Ranges

Operating Temperature: 32° to 122°F, 0° to 50°C

Operating Humidity: 10% to 90% noncondensing

Storage Temperature: -22° to 140°F, -30° to 60°C

Storage Humidity: 10% to 95% noncondensing

Indicators

Per Hub LEDs: Power Status, RPS On, RPS Fail, Unit Status, Overtemp, Pause, Bandwidth Utilization Meter

Per Port LEDs: Activity, Link

Standards Compliance

IEEE 802.3z Gigabit Ethernet
IEEE 802.3x Flow Control

Electromagnetic Compatibility

FCC Part 15B Level A; IEC 801-2.3.4; EN55022

Safety

UL; CSA; 94 V-0; IEC 950/EN 60950 (TUV)

Mounting

Includes hardware for mounting in a standard 19-inch rack

Reliability

Mean Time Between Failures (MTBF)

Fan: 50,000 hours

Power Supply: 53,000 hours

Unit: 300,000 hours

Customer Support

Quick access to support information is available through the 3ComBBS (electronic bulletin board system) and 3ComFacts[SM] interactive fax service.

To reach the 3ComFacts service in Canada and the U.S., dial 1 408 727 7021 and follow the recorded instructions. In Europe call 44 1442278279. In Hong Kong call 852 537 5610.

To access the 3ComBBS in the U.S., set your modem to 8 data bits, no parity, and 1 stop bit (8,N,1), then transmit using up to 14,400 baud and dial 1 408 980 8204. To access the 3ComBBS outside the U.S., ask your local 3Com office or reseller for the appropriate baud rate and telephone number.

Ordering Information

Hub

SuperStack II Hub 1000 SX 1000BASE-SX Hub	3C510-SX

GBIC Modules

1000BASE-CX	3CGBIC 4
	3CGBIC 4-6PK
1000BASE-SX	3C511
	3CGBIC 1
	3CGBIC 1-6PK
1000BASE-LX	3CGBIC 2
	3CGBIC 2-6PK

Note: Not all GBIC modules may be immediately available.

Power Systems

3Com Advanced RPS Power Module Type 2 and UPS, as well as voltage converters, are available for the range of SuperStack II products. For details, see the 3Com Buyer's Guide.

Five-Year Warranty

Each SuperStack II Hub 1000 SX is covered by a five-year limited warranty. Power supplies and fans are warranted for one year. To qualify for the warranty, you must submit a registration card. The warranty is not offered where restricted or prohibited by law.

To learn more about 3Com products and services, visit our World Wide Web site at http://www.3com.com.