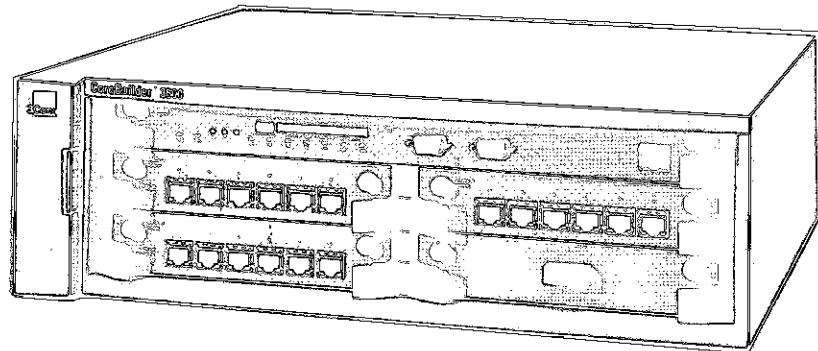




CoreBuilder™ 3500

Layer 3 High-Function Switch

Enhances performance in switched Ethernet, Fast Ethernet, Gigabit Ethernet, FDDI, and ATM LANs



The CoreBuilder 3500 Layer 3 High-Function Switch allows you to control your network traffic without compromising performance.

The 3Com CoreBuilder™ 3500 Layer 3 High-Function Switch redefines price/performance and functionality in high-end switching and routing. Built around sophisticated third-generation ASIC technology, the switch provides wire-speed Layer 2 and Layer 3 traffic forwarding and supports real-time, multimedia network traffic using the most advanced policy-based services found in networking devices today. Combined with flexible virtual LAN (VLAN) support, multicast services, multiprotocol routing, and network management with RMON and Roving Analysis Port (RAP), the CoreBuilder 3500 Layer 3 switch provides a robust and resilient networking infrastructure.

The CoreBuilder 3500 Layer 3 switch is designed to act as a backbone LAN router, replacing legacy LAN routers for Layer 3 forwarding functionality. It will also be used as an edge device performing Layer 3 forwarding while connected to a backbone of Gigabit Ethernet or ATM.

With superb performance, flexibility, and network control features, the CoreBuilder 3500 Layer 3 High-Function Switch is the ideal networking device for today's mission-critical networks.



CoreBuilder 3500 Layer 3 High-Function Switch

Key Benefits:

■ **Performance.** Advanced programmable distributed ASIC+RISC Flexible Intelligent Routing Engine (FIRE) architecture provides non-blocking, wire-speed routing and switching on all ports for unicast, broadcast, and multicast packets with an aggregate throughput of more than four million packets per second (million pps).

■ **Migration.** The CoreBuilder 3500 module will allow Ethernet, Fast Ethernet, Gigabit Ethernet, FDDI, and ATM to communicate transparently. The CoreBuilder Layer 3 switch provides routing of IP, IP multicast, IPX, and AppleTalk traffic. The subnet structure can be maintained, avoiding re-addressing end stations.

■ **Policy.** Policy-based services prioritize and allocate bandwidth to different types of network traffic. Not only does the CoreBuilder 3500 Layer 3 switch offer Layer 2 switching and Layer 3 routing, but it

features Quality of Service (QoS), Class of Service (CoS), and PACE™ technology using dynamic flow classification and Resource Reservation Protocol (RSVP) to improve throughput, decrease latency, and ensure security.

■ **Network management.** The CoreBuilder 3500 AutoFocus SmartAgent® software provides powerful self-management tools such as embedded RMON/RMON2 and a RAP feature that lets you monitor traffic on any CoreBuilder Ethernet and FDDI port.

■ **Upgrades.** Add new modules to the CoreBuilder 3500 Layer 3 switch without disrupting the system. Dual hot-swappable power supplies, changeable fans, and a system management module provide a robust platform for mission-critical applications allowing high-performance upgrades to new networking standards as they evolve.



Scaling Performance and Managing Growth with the CoreBuilder 3500 Layer 3 Switch

As networks become more complex and performance requirements more demanding, organizations need greater ability to manage the evolution of these infrastructures while making them increasingly transparent to users. Network managers require the ability to build flexible, scalable, and easily managed network solutions. Users also want all their applications, however sophisticated, to be instantly available and extremely responsive. With the CoreBuilder 3500 Layer 3 High-Function Switch and TranscendWare™ software, these goals are not only attainable, but you can build a network that will have the right tools to scale performance and manage growth while providing policy services for the first time.

Evolution of Switched Networks

The demands of today's networks are changing from a model where 80 percent of traffic remained local with the rest going through a backbone to either centralized servers or to some other part of an enterprise network. Today, 50 percent of traffic remains local with the balance going across workgroups or to the backbone. Also, shared media desktop connections are rapidly changing to switched connections to support increased traffic loads. The immediate impact of this evolution is primarily felt in the traditional

backbone routers that have been deployed to segment LANs. With so much more traffic crossing IP subnet and IPX network boundaries, these routers become bottlenecks in traffic flows. The reason is that traditional routers were optimized to handle a diverse set of media types and speeds, where translation and buffering ability were of paramount importance, not wire-speed throughput or low latencies. While some recent entries in the router space are much improved in performance—some reaching 1 million pps—they have done so at a very high price point.

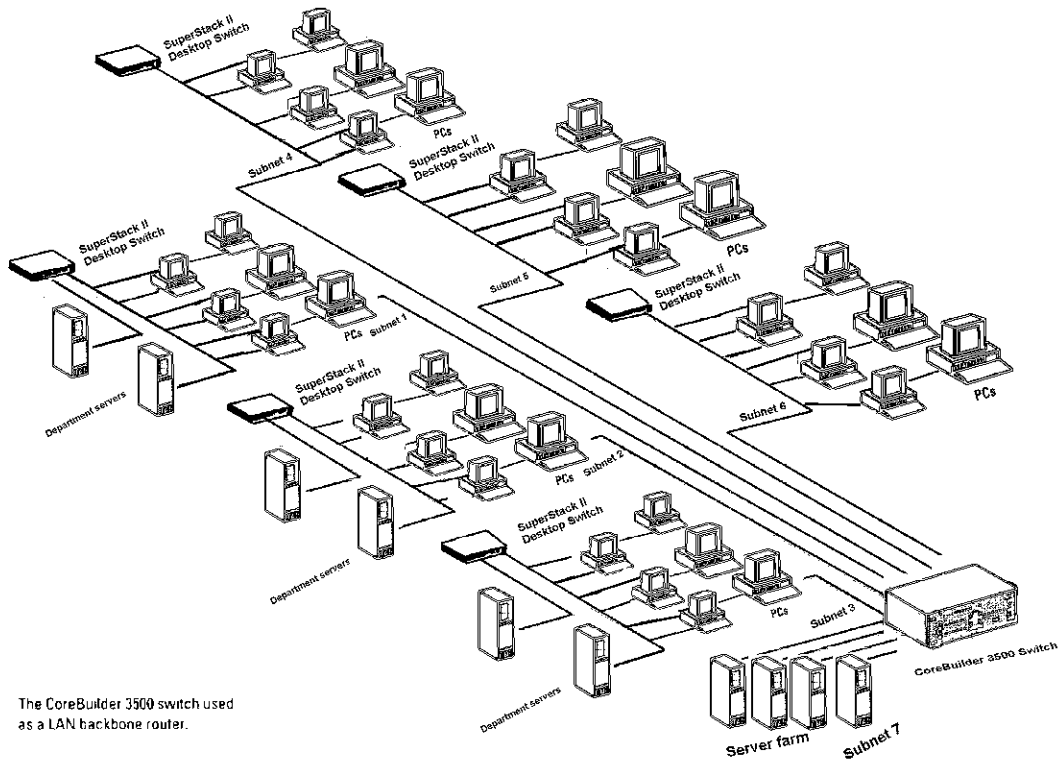
The CoreBuilder 3500 Switch—Layer 3 Wire-Speed, Multiprotocol Routing

Today's LAN infrastructures require a new solution to the problem of forwarding traffic across network boundaries. The answer is a new type of networking device. This new device combines the functions of current Layer 2 switches and LAN routers while adding features beyond what legacy LAN routers can support. These new devices have been referred to as Layer 3 switches, but that label does not fully describe the ability of the CoreBuilder 3500 Layer 3 switch. This product can route packets at wire speeds across 10/100 Mbps Ethernet ports, scaling up to 4 Mpps. The CoreBuilder 3500 Layer 3 switch also has low latencies associated with Layer 2 switches, typically 15 to 30 microseconds. Plus, the CoreBuilder 3500 Layer 3 switch supports sophisticated CoS and QoS features that allow different types of traffic to have different levels of service—without affecting performance.

Networks are not all based on Ethernet. FDDI and ATM are popular LAN backbone technologies. ATM was once considered the only backbone technology that could be deployed if multimedia applications were to be used. Newer technologies such as Gigabit Ethernet have the potential to become the choice of tomorrow's LAN backbone infrastructures. Some Gigabit Ethernet switches becoming available support CoS and QoS and, combined with massive bandwidth, have the potential to provide service levels adequate for video, voice, and multimedia over Ethernet LANs. While not as robust as ATM QoS, it will be available at lower cost and complexity. Given this reality, any networking device in consideration for use in backbones must provide a way to interconnect these technologies and provide a migration path for those networks that will be changing backbone technologies. This is an area where the CoreBuilder 3500 switch plays very strongly.

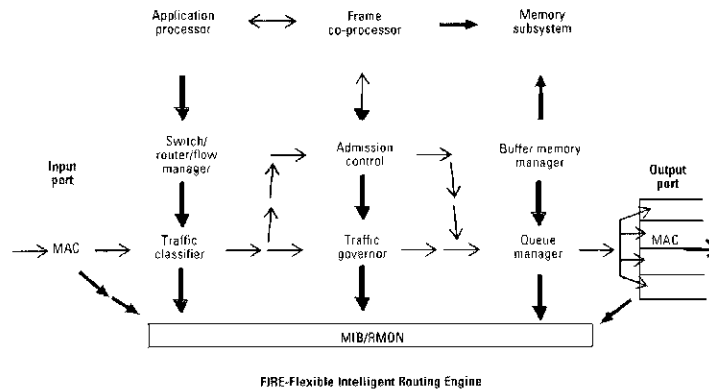
CoreBuilder 3500 Switching Architecture

What makes the CoreBuilder 3500 product the industry-leading Layer 3 High-Function Switch is its unique architecture. The switch is built around a third-generation architecture whose key element is the FIRE ASIC. This generation not only builds upon advancements in Layer 2, but provides extensive capabilities and wire-speed performance levels for Layer 3 routing, multicast forwarding, and user-selectable policy services as well. There is no longer a disparity between Layer 2 and Layer 3 performance. True Layer 3 switched topologies can now be built with the control of Layer 3 and the performance of Layer 2 with absolutely no compromises.

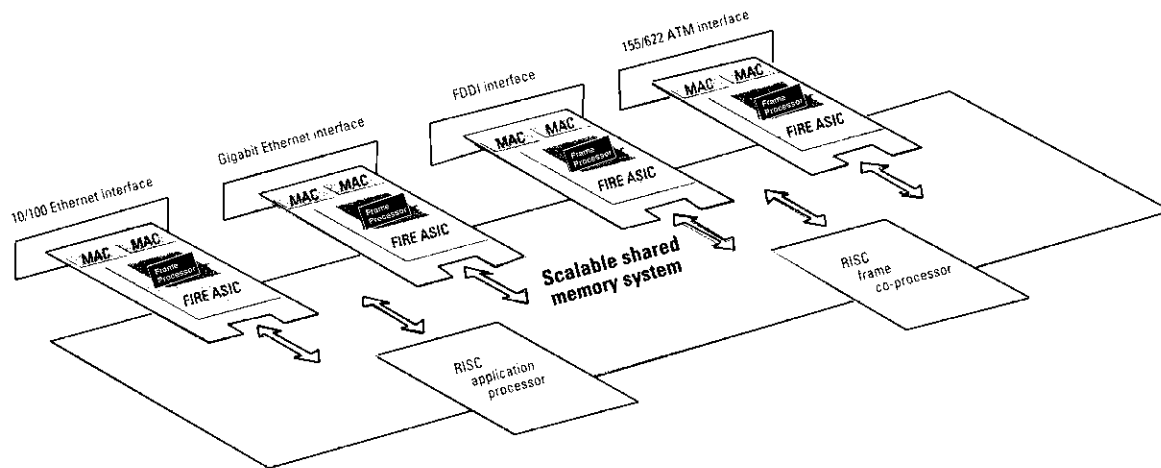


Flexible Intelligent Routing Engine

3Com has extended the FIRE programmable ASIC capabilities even further by embedding a processor into the silicon. This gives FIRE the performance of an ASIC and makes it extensible as well. Future enhancements, such as IP version 6, can be incorporated without a product upgrade or a sacrifice in performance. This future proofing is a key consideration when evaluating next-generation switching solutions. See the figures on this page and on page 4 for examples of FIRE architecture.



Data forwarding →
 Control signals →
 Fire Architecture



Performance scales with system expansion.

FIRE introduces Distributed Packet Processing (DPP). With DPP, multiple distributed forwarding engines rapidly and independently transfer packets through the system. As a packet travels through the pipeline, the system:

- Verifies frame integrity
- Captures statistics for relevant MIBs, including RMON
- Determines VLANs
- Distinguishes bridged and routed frames
- Classifies specific data flows
- Polices data rates on flows and reservations
- Applies filters
- Modifies packet headers if routing or tagging
- Applies priorities
- Transmits the packet

Within an individual pipeline, several ASICs simultaneously handle multiple frames. This parallelism and pipelining bring forwarding performance at Layer 2 and Layer 3 to new levels: wire speed on all ports for unicast, multi-cast, and broadcast traffic.

All buffering is done on the output because all the necessary checking and updates are complete by the time a packet arrives at the output stage. This avoids accessing a packet in memory, one of the most costly operations in terms of performance.

Dynamically Scalable Memory

The performance potential of advanced LAN switches is built on an intelligently designed memory subsystem. With FIRE, a portion of the buffer memory is associated directly with the forwarding engines. As interface modules are added with their respective forwarding engines, memory scales accordingly. Memory is not statically coupled with the forwarding engines, but is made available to all forwarding engines in the system. This physically distributed, yet globally shared memory provides a dramatic increase in performance, especially for multicast forwarding. FIRE allocates buffers to the size of received frames and does so dynamically, so large packets get large buffers and small packets get small buffers. This uses memory efficiently and increases the system's ability to handle large traffic bursts without losing a packet. These dynamically constructed buffers are then allocated in a two-level hierarchy, on a per-port basis and a com-

mon pool. This arrangement allows FIRE to guarantee a fixed amount of buffering for each interface yet handle large bursts of data without depleting resources. The result is efficient utilization with outstanding performance.

Advanced Queuing Mechanisms

Traditional LAN switches buffer output traffic on a single queue. Traffic was served on a first-in, first-out manner, with excess traffic discarded when the queue became full. The larger queue allowance added to latency. These characteristics made deploying real-time and multimedia applications very difficult. In response to this, 3Com introduced PACE technology, which allows for different classes of service over the same Ethernet LAN with controls for latency and jitter. The FIRE architecture builds on PACE technology and introduces four levels of output queuing for even greater levels of traffic discrimination. Packets associated with real-time flows and multimedia are placed on higher-priority queues. Weighted Fair Queuing (WFQ) services the higher-priority queues more frequently, while not starving the lower-priority queues.

Automatic Flow Classification

FIRE can instruct its packet pipeline to discriminate among user-specified traffic flows. These network manager-defined priority settings are implemented in silicon. This results in decreased latencies, high-priority transmissions, and congestion avoidance. AutoClass instructs the pipeline to classify data flows and assign them a queue-based priority. The process is media independent, working over all Ethernet, FDDI, and ATM media.

AutoClass can recognize Data Link Encapsulation such as SNAP types and LLC, as well as protocol types. Unicast, multicast, and broadcast traffic can be distinguished, as well as IP UDP, TCP source, destination addresses, and well-known ports. Mappings of 802.1p and 802.1Q services are provided as well as default classifiers. To simplify the task of traffic classification set up, TranscendWare network management applications offer simplified configuration of classifiers and queuing.

One example of using AutoClass is prioritizing FTP traffic during large file backups to ensure timely completion. Another is wire-speed firewalls, where certain flows are allocated zero bandwidth.

CoreBuilder 3500 Features

- **VLANS** provide enhanced network performance by isolating broadcast domains. Three basic types of VLANs are supported:

Port-based VLANs are an arbitrary group of ports within a bridge group.

Protocol-based VLANs are a collection of ports designated as a VLAN interface for packets belonging to a specific Layer 3 protocol family.

Network-based VLANs are a collection of ports designated as a VLAN interface for packets belonging to a specified Layer 3 network address.

IEEE 802.1Q tagging is also supported for interoperability with switches in a multivendor environment. 3Com proprietary tagging and Layer 3 address tagging are also supported.

- **Trunking** is a method of aggregating traffic over a group of ports either to form a big pipe between switches or a fault-tolerant pipe to another switch. The trunking group is treated as a single Layer 2 pipe with respect to spanning tree, filtering, VLAN membership, and so on.
- **Traffic control mechanisms** are supported to prevent the propagation of certain traffic. Packet filtering allows the user to define filters that cause blocking of traffic to or from the designated source or destination address or many other criterion. Protocol filtering prevents certain protocols from being processed on particular ports. Route filtering defines the prevention of routes from being advertised on selected interfaces. This type of filtering is mainly a security feature.
- **Multicast packet firewalls** limit the rate at which multicast packets are forwarded.

Internetworking

As large, flat Layer 2 networks are built for performance and simplicity reasons, it is becoming obvious that Layer 3 control is necessary. Users are coming full circle again as they realize the issues of Layer 2-only designs: broadcast storms, spanning tree topologies making inefficient use of data paths, limited dissimilar network connectivity, security, and so on, which forced the use of routers years ago. The reason users tried to reduce the amount of routing in networks was their greater latency and slower performance. Today, the CoreBuilder 3500 Layer 3 switch is the solution, providing Layer 3 forwarding at the performance levels of Layer 2 switches. Networks can still benefit from Layer 2 switches, but a proper network design must balance Layer 2 with the control of Layer 3 devices. The CoreBuilder 3500 switch supports the

most common Layer 3 protocols in use today:

- **IP** is the protocol most networks are using. Full IP support is incorporated in the CoreBuilder 3500 Layer 3 switch including TCP, UDP, RIP, OSPF, DVMRP, and all RFCs defined for routing of IP. Both unicast and multicast traffic types are supported. IP version 6 will be supported as well.
- **IPX**, which is used in NetWare environments, is an important protocol as most networks today have some amount of NetWare usage. Although Novell's future direction is toward IP, support of IPX is critical in migrating today's networks toward an IP-only model. The CoreBuilder 3500 Layer 3 switch supports IPX RIP, SAP, NLSP, and all IPX Ethernet encapsulation types.
- **AppleTalk** Version 2 remains ubiquitous in large networks and is critical in supporting migration to the IP-only direction Apple Computer is taking. The CoreBuilder 3500 Layer 3 switch supports AppleTalk SNAP, AARP, DDP, RTMP, ZIP, AEP, and NBP.
- **Autocast** VLANs filter IP multicasts based on IGMP and IP multicast routing packets that are received. Multicast traffic will be flooded to ports where IGMP packets have been observed. Multicast packets will also be flooded to DVMRP ports to other multicast routers. This is a benefit in applications that stream video to multiple locations or need to send many copies of large databases to many hosts, such as in financial trading floors.
- **PACE technology**, a 3Com access control protocol, is also supported. PACE technology works in conjunction with PACE NICs to provide priority to certain traffic classes and bound latency and jitter in Ethernet networks.
- **Policy-based services** define the characteristics and criteria for offering different grades of network services for certain types of traffic such as file backups, video, and multimedia. The

CoreBuilder 3500 Layer 3 switch offers a rich set of features for supporting QoS, including multiple output queues, AutoClass of traffic types, and WFQ of priority-queued traffic.

- **Fast IP** is 3Com's method of giving low-cost Layer 2 switches some Layer 3 capability. Working in conjunction with 3Com NICs, Fast IP uses the Next Hop Routing Protocol (NHRP) to map MAC and IP addresses so Layer 2 paths can be used for speed and low latency. The first packet is routed and all packets following are switched. The CoreBuilder 3500 Layer 3 switch can act as the NHRP device for a Fast IP network segment.

CoreBuilder 3500 Interfaces

Ethernet

There are three Ethernet modules for the CoreBuilder 3500 Layer 3 switch: the 6-port 10/100BASE-TX module supports auto-negotiation for speed and for half and full duplex; and the 6-port 100BASE-FX (MMF) and the 6-port 100BASE-FX (SMF) modules support half and full duplex.

Gigabit Ethernet

The single-port Gigabit Ethernet module supports a Gigabit Interface Converters (GBICs) interface, allowing a variety of media type support: 1000BASE-SX (62.5 and 50 micron MMF), 1000BASE-LX (62.5 and 50 micron MMF),

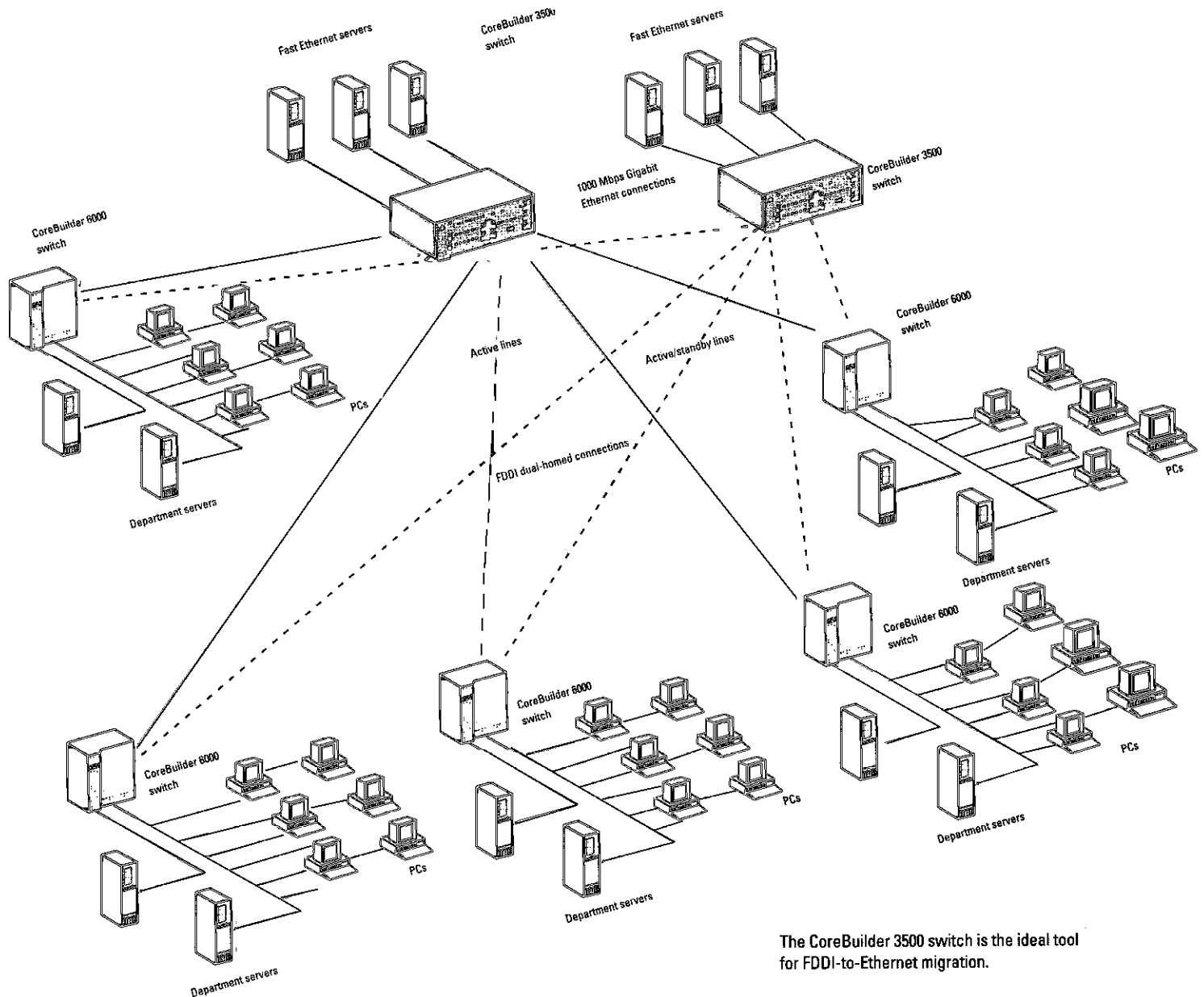
1000BASE-LX SMF, and a future 1000BASE-TX transceiver.

FDDI

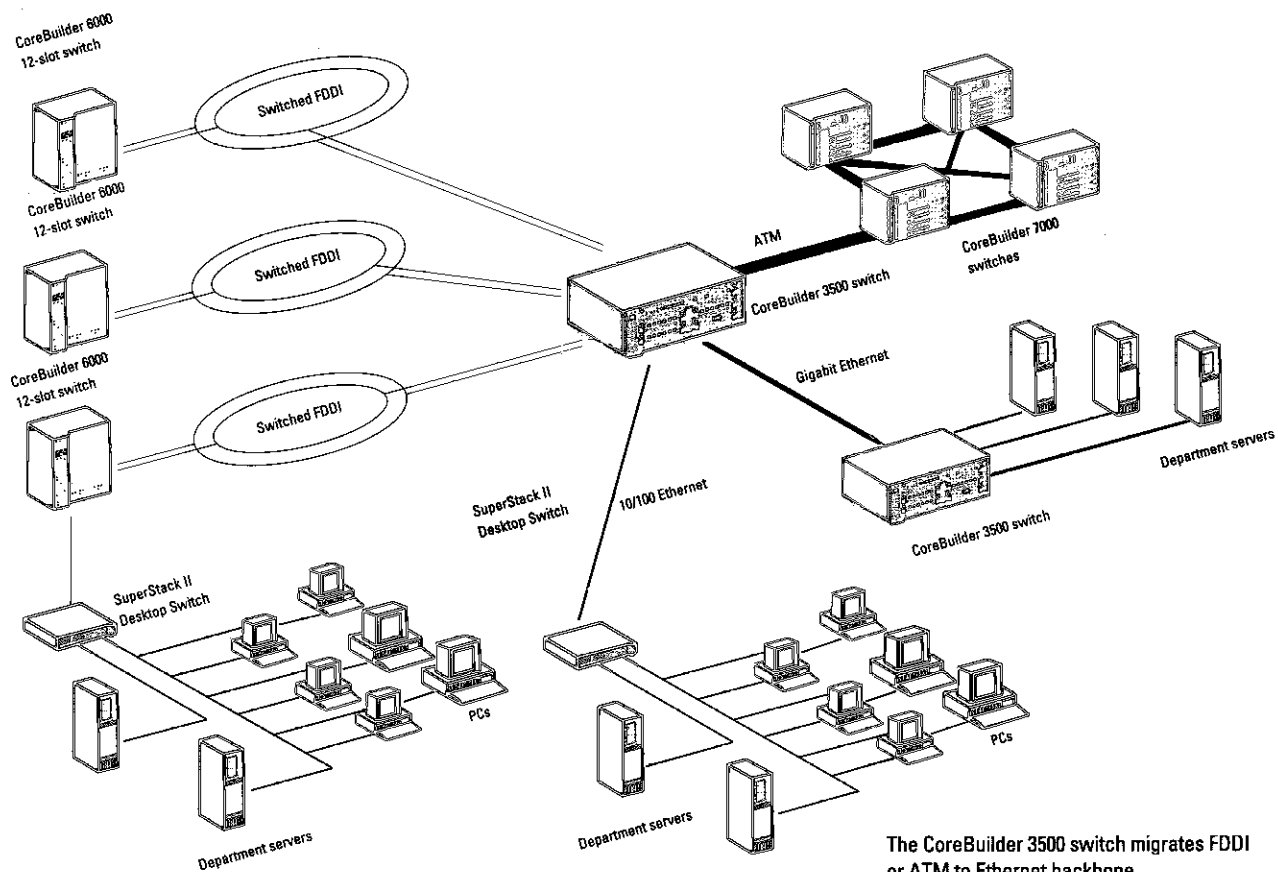
Future plans include support for FDDI interface modules. FDDI interfaces offer a tremendous advantage in networks that have FDDI backbones. They can also be used as a migration tool if the backbone technology is changing to Gigabit Ethernet or ATM. (See diagram below.)

ATM

Future plans also include support for ATM interfaces. The CoreBuilder 3500 Layer 3 switch is a great migration tool for those networks moving toward an ATM backbone or needing to connect to a Gigabit Ethernet backbone.



The CoreBuilder 3500 switch is the ideal tool for FDDI-to-Ethernet migration.



The CoreBuilder 3500 switch migrates FDDI or ATM to Ethernet backbone.

Network Management

The CoreBuilder 3500 Layer 3 switch will be supported by a combination of embedded agents and external network management applications. The CoreBuilder software leverages the advanced capabilities engineered into the device to provide traditional console-based, Web-based, application-based management, and a PCMCIA modem.

- Console-based management.** The CoreBuilder 3500 Layer 3 switch supports a state-of-the-art console interface that allows users to utilize a traditional out-of-band or in-band Command Line Interface (CLI) to configure the wide array of software options available.
- Web-based management.** The CoreBuilder 3500 Layer 3 switch also supports an embedded Web server that provides an advanced GUI to consistently configure the software options commonly found using the console interface.
- Applications-based management.** Transcend® Enterprise Manager supplies configuration management, performance monitoring, topological mapping, VLAN management, and front-panel status viewing, enhanced by an advanced GUI for ease of use.
- AutoFocus.** This tool combines the advanced feature of Roving Analysis Port (RAP) with the Transcend Enterprise Manager's ability to accomplish "action on event" to create this capability. AutoFocus allows a user to predefine the outcome of a trapped threshold and allows Transcend Enterprise Manager to automatically set an event into motion. These events, for example, can include shutting down a port or assigning an externally attached probe to a specific port.
- Embedded RMON.** Groups of RMON/RMON2 within the hardware ASIC architecture allow users the freedom of using this technology without regard to performance.
- Roving Analysis Port (RAP).** This port allows external RMON/RMON2 probes, such as the 3Com Transcend Enterprise Monitor to monitor traffic on any switched segment. The CoreBuilder 3500 Layer 3 switch RAP works across multiple CoreBuilder 3500 Layer 3 switch systems with any type of backbone connection (Fast Ethernet, FDDI, Gigabit Ethernet, or ATM), making it the industry's most powerful roving port capability. RAP is accessible from 3Com's advanced monitoring applications, LANsentry® Manager and Transcend Traffix™ software. RAP is a very important element in managing and troubleshooting a network. Only through an external RMON probe can thorough data on network traffic be gathered and analyzed as network devices can only generate the RMON

The CoreBuilder 3500 Layer 3 switch also supports a variety of unique embedded management mechanisms to allow users to utilize various methods for non-traditional management.

data. A powerful external probe is the proper tool for complete analysis. The roving port allows data collection from all segments of the network without having to manually relocate a probe.

TranscendWare Software

TranscendWare software consists of embedded network-control software. This is built into the CoreBuilder 3500 Layer 3 switch and includes:

- Service-level policy for bandwidth reservation and prioritizing traffic with CoS and QoS
- Security policy for setting firewalls and filters
- Network operations to provide the tools to set up VLANs, trunking, and multicast policies

This network-control software within TranscendWare software provides management and global policy capabilities. The management functions allow for device management, traffic reporting, troubleshooting through RMON, and analysis through a RAP. Global policy allows for the setting of service-level policy, security policy, and network-operations policy across the network, giving you unprecedented control over the network and allowing you to manage it as a single, cohesive system. Therefore, with TranscendWare software, you can set global policies via centralized applications that are automatically executed by embedded software throughout the network.

Specifications

CoreBuilder 3500 Layer 3 High-Function Switch

CoreBuilder 3500 Switch Layer 2 Features

Layer 2 Switching Support

Store-and-forward switching
IEEE 802.1d bridging mode
Address table size: 32 K (64 K)**
Configure address table per VLAN*
IPX SNAP encapsulation (FDDI)**
IP fragmentation (RFC 1042)**
AppleTalk II translation (IEEE 802.1H)**
Broadcast/multicast firewalls

Switching Performance

Max forwarding rate:
4 million pps
Max multicast/broadcast forwarding rate: 4 million pps
Average latency: 10-30 µsec

Spanning Tree Protocol

IEEE 802.1d compliant
Programmable multicast address
Enable/disable per port

Multicast Management

IGMP snooping*
Multicast limits

Traffic Prioritization

IEEE 802.1p service classes*
PACE technology*

VLAN Support

Port grouping*
MAC address grouping*
Number of port groups supported: 32
Number of MAC address groups supported: 32
Protocol-based grouping
IEEE 802.1Q tagging*
IEEE 802.1Q GVRP*
3Com virtual LAN tagging (VLT)
Open VLANs
Closed VLANs*
Port trunking (up to 8 ports/trunk)*

CoreBuilder 3500 Switch Layer 3 Features

Layer 3 Switching Support

Fast IP**

Layer 3 Routing

Layer 3 Routing Performance

Max forwarding rate:
4 million pps
Max multicast/broadcast forwarding rate: 4 million pps
Average latency: 10-30 µsec

Layer 3 IP

IP routing table entries: 4 K
RIP
OSPF*
Number of static routes: 64
Number of static ARP cache entries: 64
Enhanced PING

Traceroute support
IP debug**
BootP/DHCP relay agent
IP multicast*
IP multicast routing table entries: 6 K*
DVMRP*
Multicast tunnels*
Overlapped subnets (one-armed routing)
Routing over bridged ports

Layer 3 IPX

802.2 interface*
802.3 (RAW) interface*
SNAP interface*
IPX ethertype interface*
Multiple interface types/port
RIP

RIP entries: 2 K

SAP

SAP entries: 2 K

AppleTalk

Version 2.0*
Interface seeding
Zone filtering

TranscendWare Policy

Traffic Classification

Destination IP address*
Source IP address*
IP protocol*
Destination TCP port*
Source TCP port*
Destination UDP port*
Source UDP port*
IEEE 802.1p CoS*

Bandwidth Reservation

RSVP*
Static bandwidth reservation*
Traffic policing*

Quality of Service (QoS)

4 output queues/port
Weighted Fair Queuing (WFQ)

User-Defined Packet Filtering

Source address
Destination address
Protocol type field
128 B programmable field

AutoFocus SmartAgent Support

Roving Analysis Port (RAP)
RAP sessions: 4
Port mirroring
Mirroring session: 4

MIBs

MIB II
Ethernet MIB
FDDI SMT MIB
Bridge MIB
SNMP/FDDI Proxy
SNMP
CoreBuilder 3500 Enterprise Extensions

RMON

Statistics*
History*
Events*
Alarms*
Hosts*
HostTopN*
Matrix*

RMON2

Protocol directory*
Protocol distribution*
Address mapping*
Network-layer host*
Network-layer matrix*

Management Access

Telnet
Configurable time-out
Number of sessions: 4*
Levels of password protection: 3
SNMP

Console (RS-232)
TFTP download to Flash
External PCMCIA load*
Embedded Web server*

Serviceability

Event logs*
Upline dump*
Out-of-band management*
Modem and serial ports*
Web browser*
Power-on diagnostics*

Redundancy

Dual hot-swap power supplies
Hot-swap fan tray with redundant features

CoreBuilder 3500 Modules

Fast Ethernet Modules

100BASE-TX: 6 ports, RJ-45 connector, and UTP media
100BASE-FX: 6 ports, SC connector, and MM fiber media
100BASE-FX: 6 ports, SC connector, and SM fiber media
All modules support auto-negotiation

Gigabit Ethernet

1000BASE-SX: 1 port, SX MMF-62.5, 50 micron media*
1000BASE: 1 port, GBICS connector, supports SX, LX, SMF media**

*Available with Version 1.1 software March 1998

**Available with Version 1.2 software June 1998



Specifications

CoreBuilder 3500 Layer 3 High-Function Switch

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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 3 732 7910
New Zealand: 64 9 366 9138
Philippines: 632 892 4476
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Edmonton: 1 403 423 3266
Montreal: 1 514 683 3266
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Hungary: 36 1 250 83 41
Poland: 48 22 6451351
Russia: 7 095 258 09 40

3Com France

33 1 69 86 68 00

3Com GmbH

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Berlin, Germany: 49 30 3498790
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Argentina: 54 1 312 3266
Brazil: 55 11 246 5001
Chile: 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

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Rome, Italy: 39 6 5279941

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971 4 349049

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Norway: 47 22 58 47 00
Sweden: 46 8 632 56 00

3Com Southern Africa

27 11 807 4397

3Com UK Ltd.

Edinburgh: 44 131 240 2900
Manchester: 44 161 673 7717
Marlow: 44 1628 897000

CoreBuilder 3500 Chassis

Slots: 5 (4 interface module slots)

Physical Dimensions

Depth: 39.4 cm (15.5 in)
Width: 44.5 cm (17.5 in)
Height: 13.3 cm (5.25 in)
Weight (fully loaded): 13.2 kilos
(29 lb)

Environmental Ranges

Operating

Temperature: 0° to 40°C
(32° to 104°F)
Humidity: 10% to 95%
noncondensing

Storage

Temperature: -30° to 65°C
(-22° to 149°F)

Humidity: Up to 90%
noncondensing

Power Consumption

3.5 A @ 110 VAC
1.4 A @ 240 VAC

Safety

Agency certifications: UL 1950,
CSA 22.2 No. 750-M89, TUV
EN 60950, IEC 60950

Designed to comply with: VDE

AC protection: 4 A fuse

Over temperature protection:
automatic warning at 140°F (60°C)

Regulatory Markings

CE mark
C-TICK mark
TUV/CSA mark

Electromagnetic Emissions

Meets FCC part 15 Class A
ICES003 Class A
CISPR22 Class A
EN55022 Class A
AS3548 Class A

VCCI Level A

Subparagraph J,
Class A limits, and CISPR
Class A limits

Immunity

EN 50082-1

Power Supply

AC line frequency: 47 to 63 Hz
Input voltage options:
120 VAC; 90 to 132 VAC
220 VAC; 180 to 264 VAC
Current rating:
120 VAC at 3.0 A (max.)
220 VAC at 1.75 A (max.)
Redundancy (optional): dual power
supplies

Ordering Information

Starter Kits

CoreBuilder 3500 Starter Kit;
includes chassis, one power supply,
fan tray, processor module, base
software, and documentation
(CD-ROM) 3C35100

Interface Modules

CoreBuilder 3500 Auto-sensing
Ethernet 10BASE-T/Fast Ethernet
100BASE-TX Module
(six ports, RJ-45) 3C35210
CoreBuilder 3500 Fast Ethernet
100BASE-FX Module [six ports,
multimode fiber (MMF), SC
connector] 3C35220
CoreBuilder 3500 Gigabit Ethernet
GBIC (Gigabit Interface Converter)
Module (one port) 3C35310

Field Replaceable Units

CoreBuilder 3500 Chassis includes
one power supply and fan tray
3C35001
CoreBuilder 3500 AC Power Supply
(4.5" x 8" x 6") 3C35002
CoreBuilder 3500 Fan Tray
(1.25" x 4" x 9") 3C35003
CoreBuilder 3500 Processor Module
(1.5" x 15" x 9") 3C35004
CoreBuilder 3500 Chassis
and Backplane 3C35011

Software and Documentation

CoreBuilder 3500 Base Switching
Software and Documentation
CD-ROM Version 1.0 3C35930
CoreBuilder 3500 Extended
Switching Software and
Documentation CD-ROM
Version 1.1 3C35910

Accessories

CoreBuilder 3500 Blank Front Panel
(one slot) 3C35005
Serial Cable 3C35006
PCMCIA Flash Card (8 MB)
3C35007



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