



CS Family Terminal Servers

Affordable multiprotocol connections allowing access to a broad range of network resources

Flexible and economical, the CS Family terminal servers offer complete connection services in a chassis just 3.8 inches (9.6 cm) high. The CS/2500 and CS/3000 are diskless models you can boot from a remote management station. The CS/2600 and CS/3100 contain a floppy disk drive to allow local booting.



3Com's CS terminal server family provides a wide spectrum of multiprotocol connections for terminals, PCs, printers, and other network devices.

CS terminal servers support TCP/IP, DEC® LAT, OSI (implementing the International Standard Virtual Terminal

Protocol, IS VTP), and TN3270 for links to IBM and other hosts connected to 3270-type terminals. These protocols operate concurrently, making it easier for users to access applications and data on a variety of host systems.

Key Benefits

- Network connections for up to 48 devices, with 10-port models for smaller networks.
- Concurrent access to multiple hosts running different protocols, from IBM® mainframes to VAX® and UNIX®-based minicomputers.
- Up to 8 simultaneous sessions per port, using TCP/IP, LAT, OSI, and/or TN3270 (subject to total system limitations).
- Support for Serial Line Internet Protocol (SLIP), and Point-to-Point Protocol (PPP), allowing dial-up access to TCP/IP resources.
- Choice of transceiver modules for UTP and fiber media, or an AUI module requiring an external transceiver.
- Quick installation of hardware and software.
- Easy-to-customize management and user interfaces, plus a choice of menus or command lines.
- SNMP MIB II manageability.
- Optional centralization of administrative tasks using 3Com's Remote Boot and Configuration Services (RBCS) or via non-3Com TFTP and FTP servers.
- 3Com reliability, backed by a one-year warranty.



Welcome to the Financial Network!
The following systems are available for use:

System	Applications
1	FINANCE-2 GENERAL
2	MARKETING/SALES-1 SALES FORECAST
3	MANUFACTURING-3 MRP
4	ENGINEERING-4 PROJECT ACCOUNTS
5	CUSTOMER SERVICE-1 CUSTOMER SUPPORT
6	HELP
7	DisConnect

Please enter the number of the resource you wish to access:_____

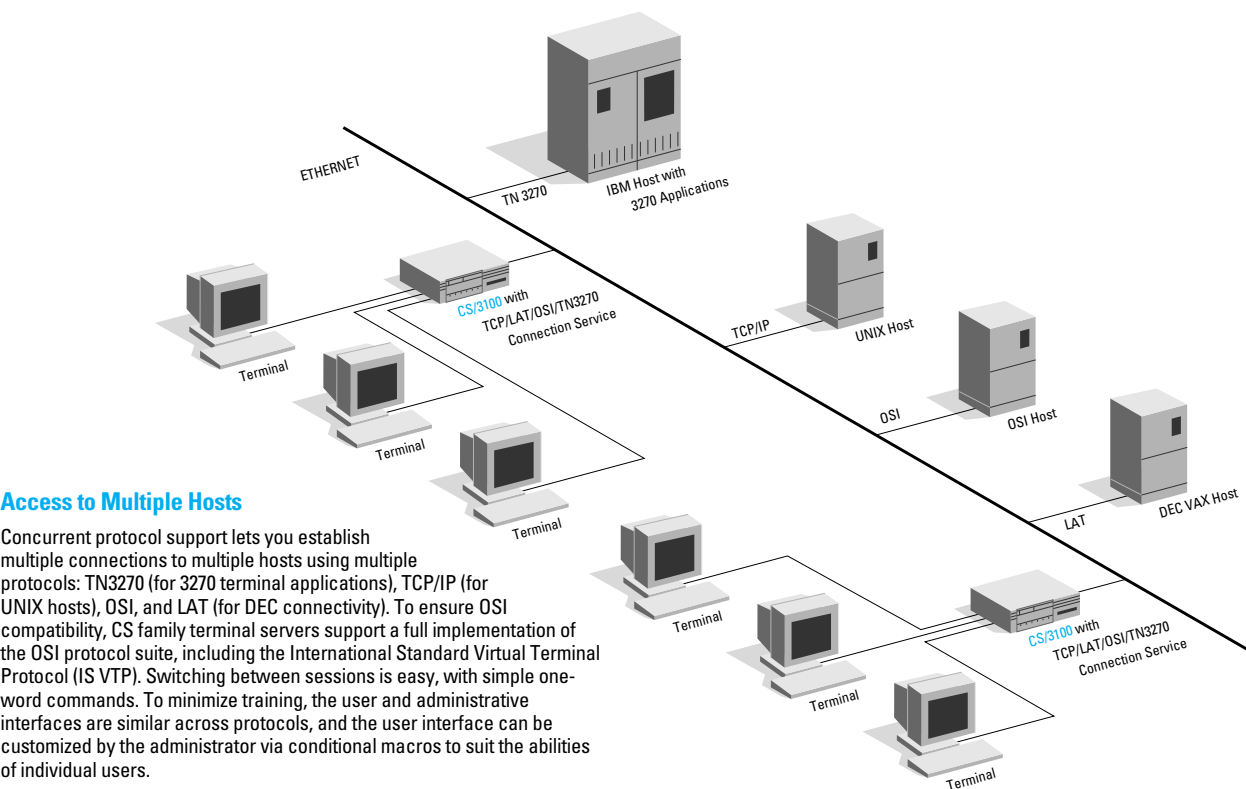
Flexible and Friendly Interfaces

Network administrators can devise custom screen-oriented menus like this one to simplify operation and restrict user access to network resources. They can also create macros to automate complex operations, letting users save time by performing repetitive tasks with a few keystrokes. Special prompts and help screens can be integrated into the user interface as well.

The management interface is just as flexible, giving the administrator the choice of either full menus or command lines. Inexperienced administrators are able to use the menus to cut down on training time, while those familiar with the system use command lines to move through procedures quickly.

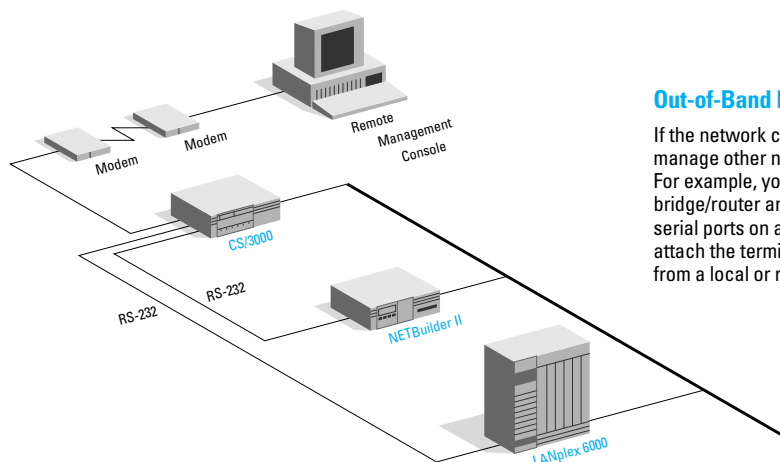
Access to Multiple Hosts

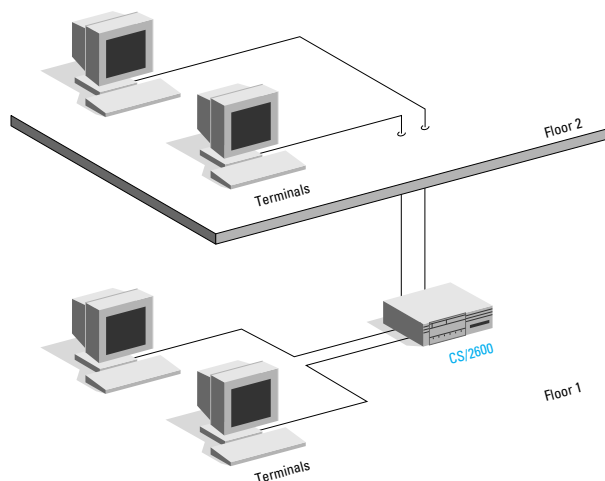
Concurrent protocol support lets you establish multiple connections to multiple hosts using multiple protocols: TN3270 (for 3270 terminal applications), TCP/IP (for UNIX hosts), OSI, and LAT (for DEC connectivity). To ensure OSI compatibility, CS family terminal servers support a full implementation of the OSI protocol suite, including the International Standard Virtual Terminal Protocol (IS VTP). Switching between sessions is easy, with simple one-word commands. To minimize training, the user and administrative interfaces are similar across protocols, and the user interface can be customized by the administrator via conditional macros to suit the abilities of individual users.



Out-of-Band Management

If the network connection is broken, you can use a terminal server to manage other network devices by means of direct or modem connections. For example, you can access the console ports of 3Com's NETBuilder II® bridge/router and LANplex® 6000 data center switch through the RS-232 serial ports on a terminal server. Out-of-band management also lets you attach the terminal server to other network devices and configure them from a local or remote management station.





Extended Terminal Attachments

RS-423 signaling allows you to attach terminals at distances in excess of 1000 feet (305 meters) from the terminal server, permitting terminal connections on another floor or even another building. This extended area of support can also save the cost of additional terminal servers.

Specifications

CS Family Terminal Servers

Network Interface

Baseband 10 Mbps IEEE 802.3-compatible interface. CS/2500 and CS/2600 uses external AUI, CS/3000 and CS/3100 use plug-in media modules.

Communications Interface

CS/2500 & CS/2600

10 RS-232 serial ports
DB-25, DCE pinout female connections
Data rates selectable up to 38.4 Kbps
Terminal host modem support: RTS, CTS, DTR, DSR, DCD, TXC, RXC

CS/3000 & CS/3100

48 RS-232 or RS-423 serial ports
50-pin telco connectors
Data rates selectable up to 64 Kbps or 76.8 Kbps
Terminal host modem support: 2 control lines can be configured for use as DCD/DTR or RTS/CTS

All CS Models

Software flow control XON/XOFF (character selectable)
Hewlett-Packard ENQ/ACK flow control support
Asynchronous support
Parallel Centronics printer support

Protocol Options

TCP/TN3270/OSI or TCP/TN3270/OSI/LAT

Physical Dimensions

Length: 12.6 in/32.3 cm
Width: 16.2 in/41.1 cm
Height: 3.8 in/9.6 cm
Weight: 12 lb/5.5 kg

Power Requirements

CS/2500 & CS/2600

115 VAC $\pm$ 15%, 47 to 63 Hz, 1.0A
230 VAC $\pm$ 15%, 47 to 63 Hz, 0.7A

CS/3000 & CS/3100

90-132 VAC $\pm$ 15%, 47 to 63 Hz, 1.0A
230 VAC $\pm$ 15%, 47 to 63 Hz, 0.7A

Environmental Range

Operating

Temperature: 41° to 104° F (5° to 40° C)
Humidity:
CS/2500 & CS/3000: 10% to 90% noncondensing
CS/2600 & CS/3100: 20% to 80% noncondensing
Altitude: to 15,000 ft/4570 m

Nonoperating

Temperature:
CS/2500 & CS/3000: -72° to 167° F (-40° to 75° C)
CS/2600 & CS/3100: -36° to 140° F (-20° to 60° C)
Humidity:
CS/2500 & CS/3000: 10% to 90% noncondensing
CS/2600 & CS/3100: 20% to 80% noncondensing
Altitude: to 40,000 ft/12,195 m

Agency Approvals and Standards

UL 114, 478; CSA C22.2 No. 220; FCC Part 15/Subpart J/Class A; VDE 0806/08.81 pending; VDE 0871 Class A pending

Software

Operating software is loaded from an internal disk drive or management station

Network Management

SNMP agent for management from any SNMP manager

Ordering Information

CS/2500 & CS/2600 Chassis

CS/2500 (10 port, diskless)*	3C5415
CS/2600 (10 port, disk-based)*	3C5411

CS/2500 & CS/2600 ProtocolPack Software

Software includes Remote Boot and Configuration Services (RBCS) images and disk images.

TCP/TN3270/OSI Version 6.1	3C5440C
TCP/TN3270/OSI/LAT Version 6.1	3C5441C
LAT License Fee (per terminal server)	3C6668

CS/3000 & CS/3100 Chassis and Modules

CS/3000-48 (48 ports, diskless)*	3C5446
CS/3100-48 (48 ports, disk-based)*	3C5448
CS/3000-0 (no ports, diskless)*	3C5445
CS/3100-0 (no ports, disk-based)*	3C5447

16-SAM (16 port serial asynchronous module)	3C5416
AUI Module (for external transceiver)	3C5622
10BASE-T Transceiver Module (UTP)	3C5623

CS/3000 & CS/3100 ProtocolPack Software

Software includes Remote Boot and Configuration Services (RBCS) images and disk images.

TCP/TN3270/OSI Version 6.1	3C5442B
TCP/TN3270/OSI/LAT Version 6.1	3C5443B
LAT License Fee (per terminal server)	3C6669

Optional Management Software

Transcend Remote Boot and Configuration Service Version 2.1 (on CD-ROM)	3C6430A
Transcend* Access Control Manager (on CD-ROM; graphical management application for controlling access to network resources from terminal servers)	3C6433

*Requires one media module. See the 3Com Price List for additional options.

*Requires one or more 16-SAM modules and one media module. See the 3Com Price List for additional options.



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TCP/IP STANDARDS SUPPORTED

Layer	Protocol	Standard
Presentation/ Application	Telnet and Options	RFC 854 MIL-STD 1782
	SNMP Agent	RFC 1157
	Structure of Management Information	RFC 1155
	Standard MIB Services	RFC 1156
	Syslog	BSD Unix
	Line Printer Daemon Protocol	RFC 1179
	Character MIB	RFC 1316
	RS-232 MIB	RFC 1317
	Network Time Protocol	RFC 1305
	Parallel MIB	RFC 1318
	Domain Name Service	RFC 1034-1035
	Internet Name Service	IEN 116
Transport	TCP and Options	RFC 793 MIL-STD 1778
	UDP	RFC 768
Network	IP and Options	RFC 791 MIL-STD 1777
	Basic Security Option	RFC 1038
	ICMP	RFC 792
	ARP	RFC 826
	Subnet Addressing	RFC 950
	SLIP	RFC 1055
	SNAP (IP over IEEE 802 Networks)	RFC 1042
	PPP	RFC 1331
	PPP Compression	RFC 1144
	PPP Internet Protocol Control	RFC 1332
	PPP Authentication	RFC 1334

LAT PROTOCOLS SUPPORTED

Based on LAT protocol licensed from Digital Equipment Corporation

OSI STANDARDS SUPPORTED (AS SPECIFIED BY GOSIP VERSION 2, FIPS 146)

Layer	Protocol	Standard
Application	Virtual Terminal Service VTE Profiles	IS 9040/9041
	—Telnet 88 Profile	
	—Generalized Telnet Profile	
	—X.3 Profile	
	—Transparent Profile	
	—Asynchronous Mode (A-Mode) Default Profile	
	Directory Service (X.500)	IS 9594
	Remote Operations Services	IS 9072
	Association Control and Service	IS 8649/8650
Presentation	Connection-Oriented Presentation Service	IS 8822/8823
Session	Connection-Oriented Session Service	IS 8326/8327
Transport	Connection-Oriented Transport Service	IS 8072/8073
	—Class 4, Reliable Transfer	
Network	—Urgent Data	
	Connectionless-Mode Network Service	IS 8473
	End System to Intermediate System	IS 9542
Link Layer	802.2 Class 1 Type 1	IS 8802/2

TN3270 STANDARDS SUPPORTED

Layer	Protocol	Standard
Session	Telnet Protocol Specifications	RFC 854
	Telnet Option Specifications	RFC 855
	Telnet Binary Transmission	RFC 856
	Telnet End of Record Option	RFC 885
	Telnet Terminal Type	RFC 930, RFC 1091
	The Q Method for Telnet Option Negotiation	RFC 1143

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