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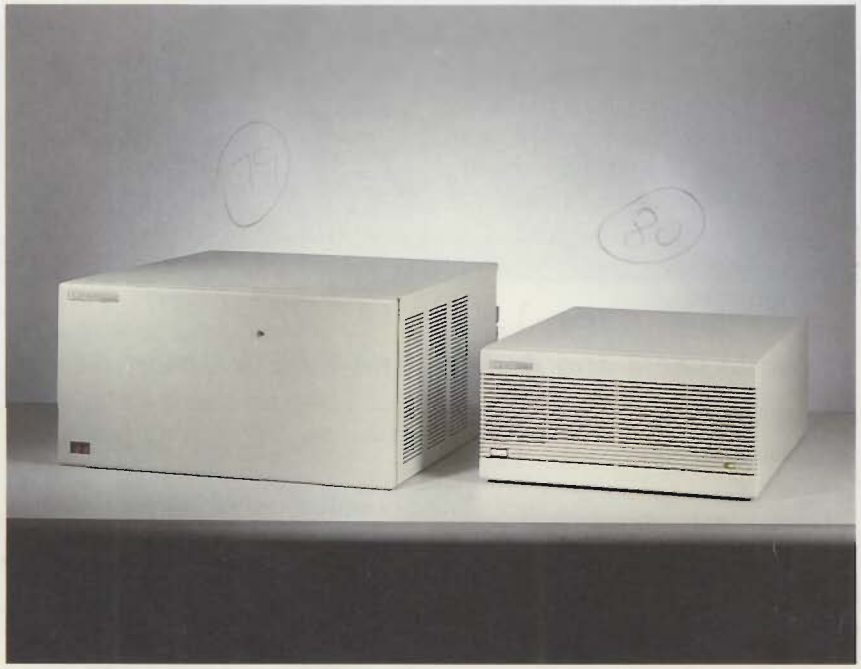
Datacommunication and Terminal Controller

DTC16 P/N HP 2340A
DTC48 P/N HP 2345A

Product Overview

The Datacommunication and Terminal Controller (DTC) is HP's strategic platform for terminal and Datacommunications access in networked multivendor systems environments (HP and other vendors systems). The DTC is a modular flexible LAN-based controller which provides asynchronous connectivity and PAD support for local & remote terminals, and printers. The DTC provides location-independent end-user access to HP and non-HP systems, implementing both an optimized protocol for on line transaction processing applications and the Industry standard Telnet/TCP/IP protocol.



New Features

While maintaining the basic features of HP 3000 Series 900 access, HP 9000 access and "back-to-back" access to asynchronous connected systems, significant new connectivity features have been added with the latest HP OpenView DTC Manager releases:

- Dual protocol Communication Server (HP 3000 Series 900 and Telnet/TCP/IP protocols)
- Pad to Telnet conversion
- Extended LANs support (level-3 IP routers, bridges)
- Multi-session
- Printers and Devices sharing between multiple HP systems
- Multiple symbolic network names addressing (DNS, NS, IP addresses)

Main Benefits

- Consistent access to applications running on HP and non-HP systems
- Consistent location-independent access (via X.25 networks, extended LANs configurations)
- Combined benefits of Industry standards and OLTP (On-Line Transaction Processing) optimized protocols
- Entry-level solution for single system sites allowing remote DTC control with Host-Based Network Management
- Powerful Centralized Network Management allowing multiple device management (DTCs, PADs, Switches, Hubs, Bridges...) from a graphical windowed interface with the HP OpenView Windows Workstation
- Increased productivity
- Reduced network operational costs

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DTC 16 and DTC 48

The DTC solution consists of a scalable family of multivendor terminal servers:

- The DTC 16 provides up to 16 asynchronous connections, plus an optional X.25 link supporting up to 32 virtual circuits at speeds of up to 19.2 Kbps.
- The DTC 48 provides up to 48 asynchronous connections; reducing the asynchronous connectivity allows up to three X.25 links, each supporting up to 256 virtual circuits at speeds of up to 64 Kbps, or one Telnet Access card with 40 Telnet connections to HP 3000 Series 900 systems.

DTC Specifications End-User Access

Hardware platform	DTC 16	DTC 48
Number of slots	3 (slot 3 dedicated to X.25)	6 (slot 0 must be Async)
Asynchronous connectivity		
Max number of cards	2	6
RS-232 Modem	6 ports - 25 pins	6 ports - 25 pins
RS-232 Direct	8 ports - 25 pins	8 ports - 3 pins
RS-422 Direct	Not available	8 ports - 5 pins
Data transfer rates	300, 1200, 2400, 4800, 9600 and 19200 bps	
LAN connectivity	ThinLAN, ThickLAN, EtherTwist (AUI + EtherTwist MAU required) Broadband, FDDI (external adapter required)	
X.25 PAD connectivity		
Max number of cards	1	3
Number of VCs/card	32	256
Interfaces/speed	RS-232/19.2 Kbps	RS-232/19.2 Kbps V.35, V.36, RS-422/64 Kbps
Telnet Access Card (Required for Telnet services for the HP 3000 Series 900)	N/A	1
Maximum number of sessions/DTC	48	128
Access to systems	Via DNS (Domain Name Server), NS, IP addressing	

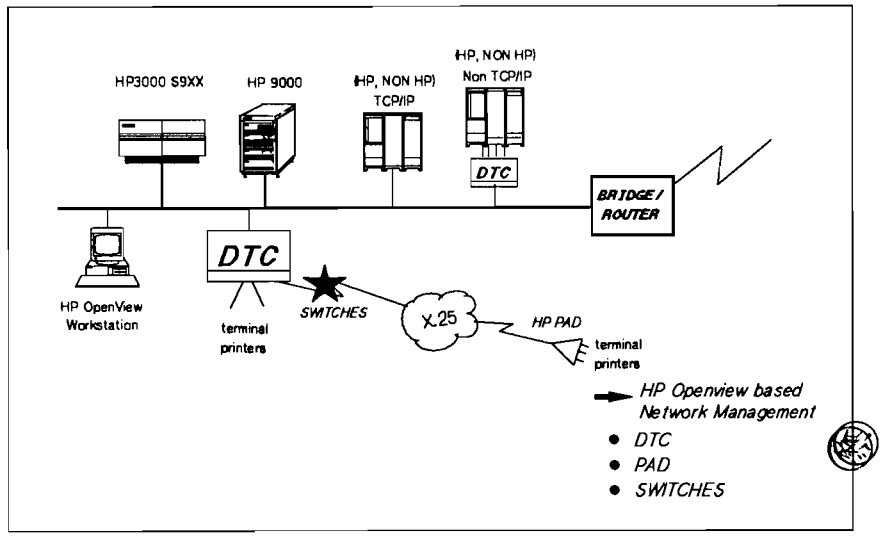
NOTE: It is not possible to mix X.25 Network Access Cards and Telnet Access Card in a DTC.

Multiple Local and Remote End-User Access

Features

Applicable to all system platforms:

- Multivendor connectivity
  - End-users can access HP and non-HP systems from their DTC-connected terminal
  - Access to non TCP/IP hosts possible through extended switching configuration (back-to-back)
  - Easy migration from MPE/V
- Routable TCP/IP implementation guarantees access through IP routers to:
  - Telnet systems (HP 9000, non-HP)
  - HP 3000 Series 900 via ARPA Services/XL
  - Non TCP/IP systems via the Telnet Access Card in the DTC
  - Consistent access to systems whether on same or different LAN segments
- Multisession capability configurable per port
- Automatic connection establishment to a predefined host configurable per DTC port
- Symbolic system addressing using ARPA DNS
- Device/printer sharing between multiple HP systems
- Enable/disable switching on a DTC port basis



- User access from either a central site or distributed locations
- Programmatic access to devices from HP systems
- Easy-to-use, self-explanatory DTC user interface

HP 3000 Series 900 specific:

- Typehead facility
- Powerfail session recovery

HP 9000 specific:

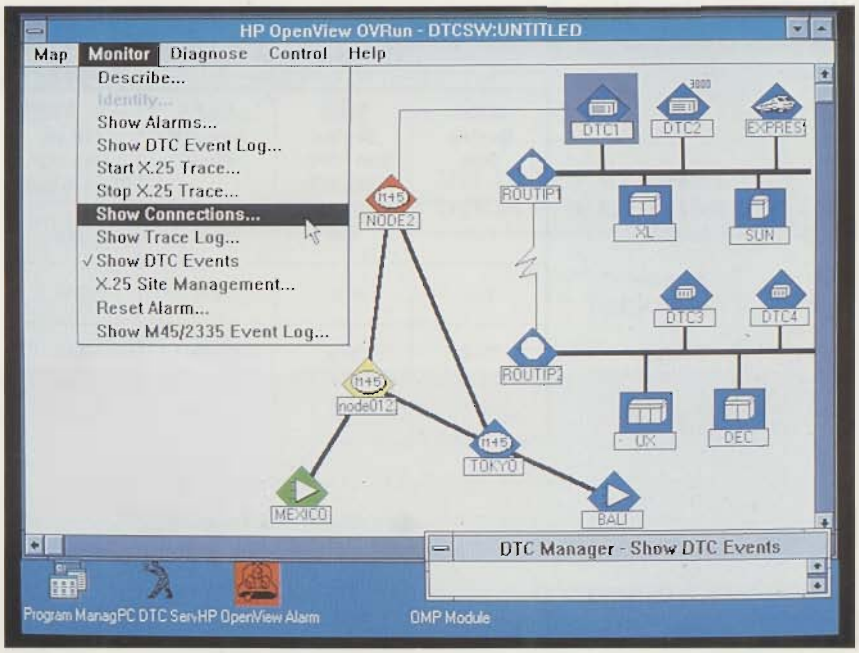
- Support of DTC devices by HP OpenSpool/UX
- DTC port identification
- HP-UX Mux compatible interface

Note: The DTC provides similar capabilities for PAD connected devices with the following limitations:

- Remote PAD printers are only supported for direct access to systems on the LAN
- Only character-mode and VPlus Block-mode applications are supported
- Multisession is not available

Network Management

- Host-based management software provide a simple, low-end solution for local asynchronous connectivity in HP 3000 or HP 9000 stand-alone environments.
- HP OpenView DTC Manager software provides extended connectivity and powerful network management features for more complex multisystem environments, or when X.25 or Telnet Access to HP 3000 Series 900 via the DTC is desired. The HP OpenView platform provides an easy-to-use graphical user interface, and the possibility of integrating management software for other network elements on the same PC.



DTC Management Functions Features (PC-based)

Configuration Management

- Default DTC configuration available
- Copy and paste functions
- Specific functions for handling large configurations
- DTC configuration and control centralized on PC (locally, or remotely via a "slave" remote PC)
- Central control point for DTC configuration updates
- Verification of DTC's IP address uniqueness on the network
- Symbolic system addressing (DNS or NS format), IP Routers addressing
- Dynamic configuration of most DTC parameters

Fault Management

- On-line status for each DTC
- Configurable event logging
- Automatic alarm report displayed on the network map
- "ping" feature to verify the connection path between a DTC and an IP node
- Configurable backup gateway and DNS Server IP addresses

Performance Management

- Configurable re-transmission timers and packet lengths

Security Management

- Password access to HP OpenView DTC Manager functions
- Configuration of terminal switching and multisession capability pr DTC user port
- Configurable access security for PAD users

Management Tool

- Seamless integration of HP DTC, switches, PADs, Hubs, Bridges and HP 3000 systems management under HP OpenView
- Easy-to-use, intuitive graphical interface, based on HP OpenView Windows, with extensive on-line help
- Remote management. The HP OpenView DTC Manager can control a remote HP OpenView DTC Manager over extended LANs or modem lines
- Simple and quick transfer of DTC control from one PC to another on the same LAN, without affecting the DTC users (e.g., when PC requires maintenance)
- Powerfail recovery facility on HP OpenView DTC Manager, transparent to managed DTCs
- Quick retrieval and identification of a physical port by its port name

Network Management Software

- HP 3000 Series 900 Host-Based: Available with the Fundamental Operating System (FOS)
- HP 9000 Host-Based (HP OpenView DTC Entry-Level/UX): P/N J2120A
- HP OpenView Windows Workstation: P/N HP 32054C with option 201
- HP OpenView DTC Manager Software: P/N HP D2355A

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Connectivity Matrix

		Destination System: 3000 Series 900	9000 Series 300/400/ 700/800	ARPA non-HP Host	non-ARPA HP or non-HP ("back-to-back")
End-user access through (*)	Local	Yes	Yes	NEW !	Yes
	Remote (X.25/PAD)	Yes	NEW !	NEW !	NEW !
	Bridges	Yes	Yes	NEW !	Yes
	Routers	NEW ! (1)	NEW !	NEW !	NEW !

(*) Refers to terminals, PCs in terminal emulation mode and printers in most configurations.

Notes: (1) Access is done using Telnet services for the HP 3000 Series 900.

Protocols Supported

- AFCP/ADCP (HP High-Performance OLTP Protocol)
- Telnet/TCP/IP: The DTC is based on the following standard:
  Telnet : MIL-STD 1782, RFC 854, 855, 856, 857, 859, 860, 1123
  TCP : MIL-STD 1778, RFC 793, 813, 879, 964, 1122
  IP : MIL-STD 1777, RFC 791, 815, 816, 879, 950, 963, 1122
  ICMP : RFC-792, 1122
  ARP : RFC-826
  DNS : RFC-1034, 1035, 1123
- CCITT_84 X.25
- PAD Support: Compliant with CCITT_80 and CCITT_84 X.3 and X.29

Interoperability Tests Done at Product Introduction

(Systems implementing the Telnet/TCP/IP protocol suite)

- HP 3000 series 900 with:
  – HP ARPA Telnet Access release 10.5 or later, or
  – HP ARPA Telnet Express release 10.5 or later
  – MPE-XL 2.1 or later
- HP 9000 Series 300/400/700/800 with:
  – HP-UX release 7.0 or later
  – ARPA Services/9000
- HP 1000 Series with:
  – RTE-A release 5.2 or later
  – ARPA Services/1000
- HP APOLLO Series with:
  – DOMAIN
  – ARPA Services
- DEC VAX System with:
  – VMS release 5.4
  – NS VAX 2.1
- DEC VAX System with:
  – VMS release 5.4
  – WIN/VX 5.1
- SUN SparcServer with:
  – SUN-OS release 4.1

NOTE: The DTC also provides with X.25 system-to-system communication and Telnet Access to the HP 3000 Series 900 systems.

For More Information

Please consult your local HP Sales representative.

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