

Software Product Description

PRODUCT NAME: DECserver 250 for ULTRIX, Version 2.0

SPD 38.07.01

DESCRIPTION

The DECserver 250 is a network server for printers for Ethernet Local Area Networks. The DECserver 250 provides a convenient method to connect logically the following:

- Two Digital asynchronous parallel printers (using Dataproducts parallel interface standard)
- Three Digital asynchronous serial printers
- A Digital asynchronous serial printer or terminal with modem control to one or more service nodes (hosts) on an Ethernet

The DECserver 250 implements the Local Area Transport (LAT) protocol for communication with service nodes that implement this protocol on the same Ethernet.

Software that runs on the DECserver 250 is down-line loaded over the network from either an ULTRIX load host, or from any other supported load host which runs Phase IV DECnet. DECnet is not required for ULTRIX load hosts.

DECserver 250 Options

The DECserver 250 hardware consists of a single box that provides the following:

- Two Digital Parallel printer ports, each of which uses a male 37 pin connector
- Four EIA RS-232-C/CCITT V.24 asynchronous line interfaces for connecting three serial printers and one printer or terminal
- Ethernet interface transceiver port

Features

Connection Management

A line printer daemon on ULTRIX service nodes initiates connections to asynchronous printers connected to DECserver 250 ports.

Users can establish a logical connection from any service node that implements the LAT protocol on the same Ethernet LAN. The terminal connected to the server can be used to make multiple connections to the same or to different service nodes on the Ethernet. Only one connection per asynchronous printer can be made.

Load Balancing

The DECserver 250 offers load balancing, which is a function that dynamically spreads the user load evenly among service nodes that offer the same service.

On-line HELP Facility

A full on-line reference HELP facility, with tutorial HELP feature, is available on the printer/terminal port. The remaining ports do not have access to the HELP facilities.

Permanent Characteristics

The DECserver 250 maintains permanent characteristics in non-volatile memory, which is retained even when the power is disconnected.

Port Characteristics Configuration

Characteristics governing the operation of the DECserver 250 ports can be displayed interactively from the printer/terminal port when connected to a terminal. Characteristics other than permanent may be setup by the user or Server Manager.

Port Access

Port access is the characteristic which determines how a port may access or be accessed by interactive users and service nodes. The printer/terminal port of the DECserver 250 is the only asynchronous port with modem control. This port is the only one available for terminal connection and the only one which offers these access modes:

- Local - Designed for the interactive terminal to allow the device attached to the port to communicate directly with the server.

- Service - Service Mode is used for communications between the server and service nodes.

All other ports use remote access, which is designed for applications driven devices such as asynchronous printers that are allocated by a service node process. This allows the implementation of certain shared printers by multiple service nodes.

Refer to the System Support Addendum (SSA 38.07.01-x) for the list of printers, terminals, and modems supported.

DECserver 250 Operation

The DECserver 250 ROM-based firmware provides the necessary maintenance operation protocols for down-line loading DECserver 250 software from an ULTRIX load host over the Ethernet into server memory. All self-test diagnostics are DECserver 250 ROM-based and are executed prior to a Load request.

DECserver 250 Configuration and Performance

The performance of a given server is a function of the expected network traffic, the load on hosts to which ports are connected, and resultant processing pursuant to the dedicated function of the unit. Thus performance depends on several factors:

- Number of ports in use
- Number of host systems with active connections to the server
- Printer speeds
- Terminal connection/speed on the printer/terminal port
- User applications
- Number and size of host buffers
- Server workload
- Network and host loading

In terms of throughput of the printer ports, the DECserver 250 parallel ports can support up to 2000 lpm and the serial ports, up to 19,200 baud on two of the serial ports and up to 9600 baud on the remaining two serial ports. All ports can be accessed at their rated speeds, however, the DECserver 250 overall performance is a factor of the CPU and network utilization.

HARDWARE REQUIREMENTS

VAX, MicroVAX, VAXstation, DECsystem or DECstation configuration as specified in the System Support Addendum (SSA 38.07.01-x).

SOFTWARE REQUIREMENTS *

ULTRIX Operating System

- * Refer to the System Support Addendum (SSA 38.07.01-x) for availability and versions of required software and for information regarding components of VMS DECwindows.

ORDERING INFORMATION

Software Licenses: QL-VTNA*-* (included with the purchase of hardware)

Software Media: QA-VTNA*-*

Software Documentation: QA-VTNA*-GZ

Software Product Services: QT-VTNA*-*

- * Denotes variant fields. For additional information on available licenses, services and media, refer to the appropriate price book.

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about Digital's licensing terms and policies, contact your local Digital office.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from Digital. For more information, contact your local Digital office.

SOFTWARE WARRANTY

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

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System Support Addendum

PRODUCT NAME: DECserver 250 for ULTRIX, Version 2.0

SSA 38.07.01-A

HARDWARE REQUIREMENTS

Processors Supported

VAX-Based Processors:

VAX: VAX 6000-210, VAX 6000-220,
VAX 6000-230, VAX 6000-240

VAX 6000 Model 300 Series,
VAX 6000 Model 400 Series,
VAX 6000 Model 500 Series

VAX 8200, VAX 8250, VAX 8300, VAX 8350,
VAX 8500, VAX 8530, VAX 8550, VAX 8600,
VAX 8650, VAX 8700, VAX 8800, VAX 8810,
VAX 8820, VAX 8830, VAX 8840

VAX 9000-210, VAX 9000-410, VAX 9000-420

VAX-11/750, VAX-11/780, VAX-11/785

MicroVAX: MicroVAX II, MicroVAX 2000,
MicroVAX 3100, MicroVAX 3300,
MicroVAX 3400, MicroVAX 3500,
MicroVAX 3600, MicroVAX 3800,
MicroVAX 3900

VAXstation: VAXstation II, VAXstation II/GPX,
VAXstation 2000, VAXstation 3100,
VAXstation 3200, VAXstation 3500,
VAXstation 3520 VAXstation 3540

VAXserver: VAXserver 100, VAXserver 2000,
VAXserver 3100, VAXserver 3300,
VAXserver 3400, VAXserver 3500,
VAXserver 3600, VAXserver 3602,
VAXserver 3800, VAXserver 3900

VAXserver 6000-210, VAXserver 6000-220,
VAXserver 6000-310, VAXserver 6000-320,
VAXserver 6000-410, VAXserver 6000-420,
VAXserver 6000-510, VAXserver 6000-520

DECstation: DECstation 2100, DECstation 3100,
DECstation 3100s
DECstation 5000 Model 200,
DECstation 5000 Model 200CX,
DECstation 5000 Model 200PX,
DECstation 5000 Model 200PXG,
DECstation 5000 Model 200PXG TURBO

DECstation 5000 Model 120/125,
DECstation 5000 Model 120/125CX,
DECstation 5000 Model 120/125PX,
DECstation 5000 Model 120/125PXG,
DECstation 5000 Model 120/125PXG TURBO

DECsystem: DECsystem 3100, DECsystem 5000 Model
200,
DECsystem 5100, DECsystem 5400,
DECsystem 5500, DECsystem 5810,
DECsystem 5820, DECsystem 5830,
DECsystem 5840

Processors Not Supported

VAX-11/730, MicroVAX I, VAXstation I

Processor Restrictions

A device capable of reading a TK50 is required to install DECserver 250 software on MicroVAX 2000 or VAXstation 2000 systems.

The DECserver 250 software runs on the following packaged hardware option:

DSRVP-AA/AB DECserver 250 hardware, including two Digital (Dataproducts compatible) parallel asynchronous ports with speeds up to 2000 LPM and four EIA RS-232-C/CCITT V.24 asynchronous ports supporting speeds up to 19.2K baud on two ports and 9.6K baud on two ports, factory set at 120V/240V.

The DECserver 250 hardware requires both a transceiver drop cable and Ethernet connection, H4005 or DELNI or DESTA, to connect to the Ethernet physical channel.

Use the following SHIELDED cables with each of the physical lines on the DECserver 250 unit:

Parallel Printer

BC27A - Parallel printer connections. LLF01/BN25J - Fiber optic based connection for parallel printers to be remotely placed (not shielded).

Serial Printer

BC22D - Null modem cable for local terminal or serial printer connections.

Printer/Terminal

BC22E - Full modem straight through cable for modem connections.

BC22F - Full modem straight through cable for modem connections.

BC22R - Recommended null modem cable for host systems and other devices, including those which utilize CTS/RTS flow control.

BC17D - Null modem cable for host systems and other devices which do not utilize CTS/RTS flow control.

All software run on the DECserver 250 is down-line loaded over the Ethernet.

Disk Space Requirements:

Disk space required for installation: 850 blocks
(452K bytes)

Disk space required for use (permanent): 850 blocks
(452K bytes)

The block space requirements above refer to the disk space required on the down-line load host system disk. The sizes are approximations; actual sizes may vary depending on the user's system environment, configuration and software options.

OPTIONAL HARDWARE

Printers Supported

The DECserver 250 software supports the following Digital parallel printers when accessed from ULTRIX systems:

- LG01, LG02
- LP27, LP29, LP37
- LP25, LP26
- LXY12, LXY22

The DECserver 250 software supports the following Digital asynchronous serial printers when accessed from ULTRIX systems:

- LG31, LG01-DA, LG02-DA
- LA50, LA75, LA120, LA210
- LXY12-DA, LXY22-DA
- LN03, LN03R, LN03S, LCG01
- LJ250 (RS232 ONLY)

Printers Not Supported

Printers - LP272A/2B/DA/DB, LSP25, LSP26, LG02 (with firmware V1.0 or V2.0)

Terminals Supported

One port with modem control is available for terminal connection on the DS250. On that port, the DECserver 250 software supports the following Digital terminal devices that have keyboards:

- VT100 series
- VT200 series
- VT300 series

Modems Supported

Modem control is available on the DS250 printer/terminal port. The DECserver 250 software supports the following Digital modems for either dial-in or dial-out use:

- DF112, DF124, DF224, and DF242 full duplex asynchronous modems

SOFTWARE REQUIREMENTS

ULTRIX Operating System, V2.0 - V4.0 (with Maintenance Operations Protocol installed)

OPTIONAL SOFTWARE

None

GROWTH CONSIDERATIONS

The minimum hardware/software requirements for any future version of this product may be different from the minimum requirements for the current version.

DISTRIBUTION MEDIA

Tape: 9-track 1600 BPI Magtape (PE), TK50 Streaming Tape

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The above information is valid at time of release. Please contact your local Digital office for the most up-to-date information.

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