Software Product Description

PRODUCT NAME: DECndu Plus, Version 1.0 **SPD 47.50.01**

DESCRIPTION

The DECndu (Network Device Upgrade) Plus V1.0 utility allows users to update versions of software microcode resident in electrically alterable memory within supported hardware devices. The DECndu Plus V1.0 utility is installed on a load host and can be used to update the software microcode on eligible devices.

DECndu Plus V1.0 implements two methods of updating eligible devices. SNMP/TFTP protocols are used to perform downline upgrades to Digital Equipment Corporation's DEChub 900 product family and other supported devices. DECndu Plus V1.0 also implements proprietary protocols used to downline upgrade the DECbridge 500/600 Series, DECconcentrator 500, and DECbridge 90 products.

This utility is available only for those Digital products that have elected to use this method of updating. Refer to the appropriate product SPD for more information.

Features

- Installs and resides on an OpenVMS VAX, ULTRIX RISC, or MS–DOS® host. (Order the appropriate kit for the specific need.)
- Enables downline upgrading of device software microcode from the host into electrically alterable memory within the hardware device with a permanent update.
- Verifies load was successful at user option
- Backwards compatible with the DECndu V2.0 Utility
- Adds SNMP/TFTP downline upgrade capability

DEChub 900 and GIGAswitch Support

DECndu Plus V1.0 will perform software downline upgrades for DEChub 900, GIGAswitch and associated modules. It will downline upgrade the DEChub 900 management module, DEChub functional modules (eg. terminal servers, repeaters) located in a DEChub 900 slot or functional modules used as DEChub One (standalone) devices. GIGAswitch and modular options are also supported.

A downline upgrade target device must be addressable via an IP address in order for DECndu Plus V1.0 to perform an upgrade. Some modules may not implement direct IP addressing capability, and use an IP Services module. Downline upgrades of these modules need to be performed through the IP Services module, whether installed in the DEChub 900 or used as a DEChub One (standalone) device.

Because SNMP and TFTP are used to downline upgrade these devices, an upgrade can be routed from anywhere in the network. The requirement to be on the same extended local area network (LAN) is removed from SNMP/TFTP operations.

DECbridge 500/600 Series, DECconcentrator 500 and DECbridge 90 Support

For users of DECbridge 500/600, DECconcentrator 500 and DECbridge 90, device upgrades are made available via Software Upgrade Kits (QB-*****-**). These QB kits contain DECndu V2.0 (not DECndu Plus V1.0) and the device upgrade software. These devices are upgradeable only through RBMS and MOP protocols. DECndu V2.0, supplied with the Software Upgrade Kit, is sufficient for updating those devices.

DECndu Plus V1.0 is a superset of DECndu V2.0, and as such also implements RBMS and MOP downline upgrading for the DECbridge 500/600 Series, the DECconcentrator 500 and the DECbridge 90. If a user has DECndu Plus V1.0 and one of these devices, DECndu Plus V1.0 will load the RBMS/MOP device as well. The user is not required to also install DECndu V2.0 (even though it would have been received with the Software Upgrade Kit).

RBMS/MOP based downline upgrade operations must occur on the same extended LAN. The DECndu V2.0 or DECndu Plus V1.0 load host must be on the same extended LAN as the target device. An extended LAN is a collection of LANs that are interconnected by a network bridge device and logically appear as one large LAN.

digital™

February 1994
AE-PYA9B-TE

Note Regarding IP Capability:

DECndu Plus V1.0 uses SNMP/TFTP to perform downline upgrade functions. For OpenVMS VAX systems, TCP/IP Services for OpenVMS VAX is a prerequisite software product.

For MS–DOS systems, DECndu Plus V1.0 supplies a minimal set of IP services required to perform downline upgrades. The supplied diskette should be used as a boot disk for the purpose of downline upgrading. The user would use this diskette only for this purpose.

Alternative Upgrade Methods

DECndu Plus was developed as a convenience to customers who wish to control the timing and execution of device upgrades. Since DECndu Plus implements standard SNMP and TFTP commands, some users may wish to write their own device upgrade procedures. All of the DECndu Plus Documentation Kits identified in the ORDERING Section below contain the command parameters used by DECndu Plus. The command parameters are also available through the Internet at gatekeeper.dec.com in /pub/DEC/hub900 using anonymous ftp. Reference the README file in this directory for information on downline upgrading.

HARDWARE REQUIREMENTS

- OpenVMS VAX Operating System

  Processor and/or hardware configurations as specified in the System Support Addendum (SSA 47.50.01-x).

- ULTRIX RISC Operating System

  Processor and/or hardware configurations as specified in the System Support Addendum (SSA 47.50.01-x).

- MS–DOS

  Intel™ 386 or higher, or compatable

  1 MB of RAM

  500 KB hard disk

  Disk drive capable of reading 3.5" high density floppy disk Ethernet adapter

SOFTWARE REQUIREMENTS

For OpenVMS VAX Operating System:

- TCP/IP Services for OpenVMS VAX

Refer to the System Support Addendum (SSA 47.50.01-x) for required versions of prerequisite/optional software.

For ULTRIX RISC Operating System:

Refer to the System Support Addendum (SSA 47.50.01-x) for required versions of prerequisite/optional software.

For Systems Using Terminals:

ULTRIX Operating System

For Workstations:

ULTRIX Worksystem Software

Note: ULTRIX Online Manual Pages and UDTMOP are optional subsets of the ULTRIX Operating System and ULTRIX RISC Worksystem Software. These are required for the installation of this layered product.

Refer to the ULTRIX Operating System Software Product Description (SPD 26.40.xx) or the System Support Addendum (SSA 47.50.01-x) for availability and required versions of prerequisite/optional software.

For MS–DOS:

- MS–DOS 5.0
- NDIS Driver V2.01 (Note: Minimal IP services are provided)

ORDERING INFORMATION

For OpenVMS VAX Operating System:

Software License: QL-0TYA9-AA
Software Media and Documentation: QA-0TYAA-H5
Software Documentation Only: QA-0TYAA-GZ

For ULTRIX/RISC Operating System:

Software License: QL-0TZA8-AA
Software Media and Documentation: QA-0TZAA-H5
Software Documentation Only: QA-0TZAA-GZ

For MS–DOS:

Software License: QL-0U0AW-AA
Software Media and Documentation: QA-0U0AA-HC
Software Documentation Only: QA-0U0AA-GZ

SOFTWARE LICENSING

The DECndu Plus V1.0 software license provides users with the right to install DECndu Plus on any host processor running the apporapriate operating system. DECndu Plus V1.0 is licensed by operating system type.

This software is furnished only under a license. For more information about Digital's licensing terms and policies, contact your local Digital office.

License Management Facility

This utility supports the OpenVMS VAX and ULTRIX RISC License Management Facilities.

License units for this product are allocated on an Unlimited System Use basis.

For more information on the OpenVMS VAX License Management Facility, refer to the OpenVMS VAX Operating System Software Product Description (SPD 25.01.xx) or the OpenVMS VAX Operating System documentation.

For more information on the ULTRIX RISC License Management Facility, refer to the ULTRIX Operating System Software Product Description (SPD 26.40.xx) or the ULTRIX Worksystem Software Product Description (SPD 28.22.xx), or the ULTRIX Operating System documentation.

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.

System Support Addendum

PRODUCT NAME: DECndu Plus, Version 1.0 **SSA 47.50.01-A**

HARDWARE REQUIREMENTS

Processors Supported for OpenVMS VAX Operating System:

VAX:

VAXft Model 110/310/410/610/612

VAX 4000 Model 200, VAX 4000 Model 300, VAX 4000 Model 500, VAX 4000 Model 600

VAX 6000 Model 200 Series, VAX 6000 Model 300 Series, VAX 6000 Model 400 Series, VAX 6000 Model 500 Series, VAX 6000 Model 600 Series

VAX 8200, VAX 8250, VAX 8300, VAX 8350, VAX 85XX, VAX 8600, VAX 8650, VAX 8700, VAX 8800, VAX 8810, VAX 8820, VAX 8830, VAX 8840

VAX 9000 Model 110, VAX 9000 Model 210, VAX 9000 Model 300 Series, VAX 9000 Model 400 Series

VAX–11/730, VAX–11/750, VAX–11/780, VAX–11/785

MicroVAX:

MicroVAX II, MicroVAX 2000, MicroVAX 3100 Model 10/10E, 20/20E, Model 30/40, Model 80, MicroVAX 3300, MicroVAX 3400, MicroVAX 3500, MicroVAX 3600, MicroVAX 3800, MicroVAX 3900

VAXstation:

VAXstation II, VAXstation 2000, VAXstation 3100 Model 30/40, Model 38/48, Model 76, VAXstation 3200,VAXstation 3500, VAXstation 3520, VAXstation 3540, VAXstation 4000 VLC, VAXstation 4000 Model 60

VAXserver:

VAXserver 3100, VAXserver 3300, VAXserver 3400, VAXserver 3500, VAXserver 3600, VAXserver 3602, VAXserver 3800, VAXserver 3900, VAXserver 4000 Model 200, VAXserver 4000 Model 300, VAXserver 4000 Model 500, VAXserver 6000 Model 210/220, VAXserver 6000 Model 310/320, VAXserver 6000 Model 410/420, VAXserver 6000 Model 510/520 VAXserver 6000 Model 610, VAXserver 6000 Model 620, VAXserver 6000 Model 630

Processors Not Supported for OpenVMS VAX Operating System:

MicroVAX I, VAXstation I, VAX–11/725, VAX–11/782, VAXstation 8000

Processor Restrictions for OpenVMS VAX Operating System

A TK50 Tape Drive is required for standalone MicroVAX 2000 and VAXstation 2000 systems.

Processors Supported for ULTRIX RISC Operating System:

DECstation:

DECstation 2100,

DECstation 3100, DECstation 3100s

Personal DECstation 5000 Model 20/25 MX, Personal DECstation 5000 Model 20/25 HX, Personal DECstation 5000 Model 20/25 TX, Personal DECstation 5000 Model 20/25 PXG+, Personal DECstation 5000 Model 20/25 PXG Turbo+, DECstation 5000 Model 120/125/133 MX, DECstation 5000 Model 120/125/133 CX, DECstation 5000 Model 120/125/133 HX, DECstation 5000 Model 120/125/133 PX, DECstation 5000 Model 120/125/133 TX, DECstation 5000 Model 120/125/133 PXG, DECstation 5000 Model 120/125/133 PXG+ DECstation 5000 Model 120/125/133 PXG Turbo,

digital™

February 1994
AE-Q0KCB-TE

DECstation 5000 Model 120/125/133 PXG Turbo+,

DECstation 5000 Model 200 MX,
DECstation 5000 Model 200 CX ,
DECstation 5000 Model 200 HX,
DECstation 5000 Model 200 PX,
DECstation 5000 Model 200 TX,
DECstation 5000 Model 200 PXG,
DECstation 5000 Model 200 PXG+,
DECstation 5000 Model 200 PXG Turbo,
DECstation 5000 Model 200 PXG Turbo+

DECstation 5000 Model 240 MX,
DECstation 5000 Model 240 HX,
DECstation 5000 Model 240 TX,
DECstation 5000 Model 240 PXG+,
DECstation 5000 Model 240 PXG Turbo+

DECsystem: DECsystem 3100, DECsystem Model 25,

DECsystem 5000 Model 200,
DECsystem 5000 Model 240,
DECsystem 5100, DECsystem 5400,
DECsystem 5500, DECsystem 5810,
DECsystem 5820, DECsystem 5830,
DECsystem 5840, DECsystem 5900

Other Hardware Required

None

For additional information regarding systems and adapters, refer to the appropriate systems and options catalog.

Disk Space Requirements (Block Cluster Size = 1) for OpenVMS VAX Operating System:

Disk space required for installation:	4000 blocks (2000 KB)
Disk space required for use (permanent):	2000 blocks (1000 KB)

Disk Space Requirements (Block Cluster Size = 1) for ULTRIX/RISC Operating System:

Disk space required for installation:	
Root file system:	2,000 KB
Other file systems:	usr 1,024 KB var 0 KB
Disk space required for use (permanent):	
Root file system:	1 KB
Other file systems:	usr 1,024 KB var 0 KB

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed VMScluster* configuration without restrictions. The HARDWARE REQUIREMENTS sections of this product's Software Product Description and System Support Addendum detail any special hardware required by this product.

* V5.x VMScluster configurations are fully described in the VMScluster Software Product Description (29.78.xx) and include CI, Ethernet and Mixed Interconnect configurations.

SOFTWARE REQUIREMENTS—For OpenVMS VAX Operating System

- OpenVMS Operating System V5.3 - V5.5
- TCP/IP Services for OpenVMS VAX V2.0

OpenVMS Tailoring

For OpenVMS V5.x systems, the following OpenVMS classes are required for full functionality of this layered product:

- OpenVMS Required Saveset
- Network Support
- Utilities

For more information on OpenVMS classes and tailoring, refer to the OpenVMS Operating System Software Product Description (SPD 25.01.xx).

SOFTWARE REQUIREMENTS—For ULTRIX/RISC Operating System:

For Systems Using Terminals:

ULTRIX Operating System V4.2 - V4.2A

For Workstations:

ULTRIX Worksystem Software V4.2 - V4.2A

Note: ULTRIX Online Manual Pages and UDTMOP are optional subsets that are part of the ULTRIX Operating System and ULTRIX Worksystem Software. These are required for installation of this layered product.

GROWTH CONSIDERATIONS

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

DISTRIBUTION MEDIA

TK50 Streaming Tape

This product is also available as part of the OpenVMS Consolidated Software Distribution and ULTRIX RISC Consolidated Software Distribution on CD-ROM.

The software documentation for this product is also available as part of the OpenVMS Online Documentation Library and ULTRIX RISC Online Documentation Library on CD-ROM.

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