Software Product Description

PRODUCT NAME: PATHWORKS for DOS (NetWare® Coexistence), Version 1.1

SPD 34.76.01

DESCRIPTION

PATHWORKS for DOS (NetWare Coexistence) extends the Personal Computing Systems Architecture (PCSA) to certain networked personal computer systems that are also Novell® NetWare client platforms. The Personal Computing Systems Architecture is a key component of Digital Equipment Corporation's systems and networking architecture that merges the VAX, RISC, and personal computer environments.

PATHWORKS for DOS (NetWare Coexistence) provides users with the facilities required to install and operate PATHWORKS for DOS V4.x software concurrently with Novell's NetWare client software (shell) on personal computers having a single Ethernet interface controller or a single Token Ring interface controller, and using the DOS Operating System.

Supported platforms must:

- Satisfy the hardware, software, and network topology requirements of PATHWORKS for DOS

- Satisfy the network topology requirements of a NetWare DOS client

- Have a single Ethernet or a single Token Ring interface controller for which a NDIS-compliant driver is available

Note:

Digital's PATHWORKS for DOS software (Software Product Description SPD 55.07.xx) allows a personal computer running the DOS Operating System to use the facilities provided by PATHWORKS for VMS, PATHWORKS for ULTRIX, or the PATHWORKS for OS/2 server software, utilizing either the DECnet or TCP/IP transports; V4.1 or greater is required for Token Ring support.

Novell's NetWare client software allows a personal computer running the DOS Operating System to use the facilities available from appropriate NetWare Server products, usually provided by Novell, using the IPX transport.

Features

PATHWORKS for DOS (Netware Coexistence) includes the following components:

- NetWare driver components which are used by Net-Ware utilities to generate an IPX driver that interfaces to either an Ethernet or Token Ring controller via a NDIS driver produced for that controller.

- Installation and configuration procedures for use with PATHWORKS for DOS, V4.x

- Documentation describing the installation, configuration, and use of the PATHWORKS for DOS facilities, while concurrently retaining access to NetWare client capabilities.

The IPX Driver for NDIS

The Network Device Interface Specification (NDIS) was jointly developed by Microsoft® Corporation and 3Com™ Corporation. This standard is intended to provide protocol-independent software support for network interface controllers. Drivers for network interface controllers developed to this standard can also service multiple network protocols simultaneously.

PATHWORKS for DOS (NetWare Coexistence) includes driver components that can be configured by the standard NetWare SHGEN or WSGEN utility to yield an IPX driver, which interfaces with NDIS drivers for either Ethernet or Token Ring controllers.

PATHWORKS for DOS V4.1, as distributed, incorporates support for NDIS drivers for Ethernet and Token Ring controllers, and support for DECnet and TCP/IP; it does not support these two protocols simultaneously.

The two environments supported by this product are:

- PATHWORKS via DECnet and NetWare via IPX

  or

- PATHWORKS via TCP/IP and NetWare via IPX.

Note: NDIS-compliant drivers for specific controllers are generally available from the board manufacturers.

INSTALLATION

Digital recommends the customer's first purchase of this software product include the PATHWORKS for DOS DECstart installation and orientation service. For more information, please contact your local Digital office.

To install and configure PATHWORKS for DOS (Net-Ware Coexistence):

1. Use Novell's SHGEN or WSGEN utility to generate the required IPX.COM driver.

2. Use a distributed utility called UPDATE to copy any required software from a copy of the distribution media to the designated area for PATHWORKS for DOS client configuration.

3. Copy the newly generated IPX.COM driver and other required NetWare client components to the designated area for PATHWORKS for DOS client configuration.

4. Use the NETSETUP utility to guide the system manager through the remaining configuration process using a series of menus, including on-line HELP.

Documentation

The documentation for PATHWORKS for DOS (NetWare Coexistence) is essential for the installation, configuration, and proper use of this product.

The *Installation and Configuration Guide* provides the system manager with "cookbook" instructions for the installation and configuration of these special client platforms. The guide provides information to assist the system manager in understanding the key interactions between the two LAN products. It also provides guidance and strategies to best utilize this environment for typical use.

The *User's Handbook* provides end-users of NetWare and PATHWORKS for DOS on the same personal computer with a consolidated reference for the ordinary use of PATHWORKS for DOS V4.1.

Restrictions

This product takes advantage of the fact that client software for each LAN product is a well-behaved DOS product, and neither does anything overt to prevent the proper execution of the other. This product has no effect on the basic design or operation of either LAN product. However, certain options available from each LAN product may limit and/or restrict the full range of capabilities optionally offered by the other.

NETBIOS Issues

PATHWORKS for DOS uses its NETBIOS interface for file and print services and also supplies a NETBIOS Applications Programming Interface (API) for applications. If the NetWare NETBIOS is also loaded on a system configured to use both NetWare and PATHWORKS software, the following will result:

• If the DECnet transport is being used, the PATH-WORKS NETBIOS API will no longer be accessible and the BROADCAST/RECEIVE utilities will no longer operate as expected. PATHWORKS file and print services, DECnet utilities, and applications written to the DECnet sockets interface (e.g., PC DECwindows) will continue to operate.

• If the TCP/IP transport is being used, PATHWORKS file and print services will be disabled and the PATH-WORKS NETBIOS API will no longer be accessible. Other TCP/IP utilities and applications written to the TCP/IP sockets interface (e.g., PC DECwindows) will continue to operate.

Network-Addressing Issues

If a system that is both a PATHWORKS and NetWare client is using DECnet to support PATHWORKS functions, please note the following:

• The NDIS-compliant driver used must support a feature called SET STATION ADDRESS (contact the manufacturer for this information).

• The station address of the client is automatically changed to reflect the DECnet address.

Note: The address change has no effect on normal NetWare operations. However, since station addresses can be used to restrict access to NetWare services, the NetWare LAN administrator should be aware of this and take appropriate action to retain the desired restrictions.

Remote Boot

Under certain conditions, each LAN product can normally support diskless personal computers by utilizing a capability known as "remote boot". When a personal computer is configured as both a PATHWORKS and NetWare client, neither LAN product can offer this "remote boot" capability to this client.

Therefore, the target workstation must be able to support local boot.

Use of Microsoft Windows™ V3.0

Microsoft Windows V3.0 may be configured to support either the NetWare or the PATHWORKS for DOS (LAN Manager) technology, but not both simultaneously. *Note:* PATHWORKS for DOS, V4.x incorporates LAN Manager technology.

While running Microsoft Windows on a system config- ured as both a PATHWORKS and NetWare client, a user may encounter some restrictions, depending on the ver- sion of PATHWORKS for DOS in use.

Using PATHWORKS for DOS, V4.1

No restrictions apply if Microsoft Windows is configured to run with NetWare, and the PATHWORKS for DOS utility, WIN3SETU, is started, as explained in the docu- mentation.

Using PATHWORKS for DOS, V4.0

If Microsoft Windows is SETUP to support NetWare:

- Users cannot make connections to PATHWORKS file or print services with the Microsoft Windows File Manager.

  However,

  — Connections defined for PATHWORKS file, print, and disk services established before invoking Mi- crosoft Windows remain valid and fully accessible.

  — Users can make connections to PATHWORKS file or print service via a DOS window and the USE utility.

If Microsoft Windows is SETUP to support PATH- WORKS LAN Manager:

- Users cannot launch non-Windows applications that reside on NetWare drives with the Microsoft Windows File Manager (or using the "RUN" command from the "FILE" menu).

  However,

  — Users can launch non-Windows applications that reside on NetWare drives via a DOS window.

Note: In this environment, users can make connections to NetWare file or print services with the Microsoft Win- dows File Manager.

In all environments, all connections made to Netware and PATHWORKS services before Microsoft Windows is invoked can still be accessed while using Microsoft Windows.

Memory Usage

Systems configured to use both PATHWORKS for DOS and NetWare require that the code to support both LAN environments be loaded into memory. This requirement means there will be less conventional memory for other applications in such an environment than available if only one LAN product were used.

In general, the amount of conventional memory avail- able for end-user applications is "the best case PATH- WORKS for DOS memory usage" less memory required when the NetWare IPX and shell modules are installed in conventional memory, typically about 50-55 KB.

HARDWARE REQUIREMENTS

Processors and/or peripherals as specified in the Sys- tem Support Addendum (SSA 34.76.01-x) are sup- ported.

Ethernet and Token Ring Controllers

PATHWORKS for DOS, when used in conjunction with PATHWORKS for DOS (NetWare Coexistence), sup- ports Digital's family of EtherWORKS controllers via the NDIS drivers supplied with PATHWORKS for DOS.

The family of EtherWORKS controllers includes:

- EtherWORKS LC
- EtherWORKS LC/TP
- EtherWORKS MC
- EtherWORKS MC TP/BNC
- EtherWORKS Turbo
- EtherWORKS Turbo/TP
- EtherWORKS Turbo TP/BNC

Notes: The Digital Ethernet NDIS drivers can also be used with previous versions of the Digital Ethernet con- troller family, DEPCAs.

Digital recommends the use of the Digital multi-buffered EtherWORKS controllers in networks which carry heavy traffic.

Because the PATHWORKS for DOS and PATHWORKS for DOS (NetWare Coexistence) software are written to the NDIS interface, users can use third-party Ethernet or Token Ring controllers if accompanied by an NDIS Version 2.0.1 driver.

Every effort has been made to ensure that the software adheres to the NDIS Version 2.0.1 specification. How- ever, individual vendors' interpretation of the specifica- tion may vary and therefore may not function in Digital's PATHWORKS for DOS network environment.

The PATHWORKS for DOS product contains several NDIS drivers for the convenience of our users. The NDIS drivers are furnished " as is," and Digital cannot be held liable for any special, indirect, incidental, or con- sequential damages.

SOFTWARE REQUIREMENTS

- PATHWORKS for DOS as specified in the System Support Addendum SSA 34.76.01-x.

- At least one of the following Novell NetWare products called out in the System Support Addendum SSA 34.76.01-x.

PATHWORKS Server Support

The following PATHWORKS server software products are supported for use in conjunction with a PATHWORKS for DOS server/client environment:

PATHWORKS for VMS (SPD 30.50.xx)
PATHWORKS for ULTRIX (SPD 32.44.xx)
PATHWORKS for OS/2 (SPD 55.24.xx)

Refer to System Support Addendum (SSA 34.76.01-x) for availability and required versions of prerequisite /optional software.

ORDERING INFORMATION

Software License: QL-0TL**-**
   (included with PATHWORKS for DOS)
Software Media and Documentation: QA-GLVAA-HW
Software Media and Documentation PATHWORKS
   for DOS: QA-0TL**-**
Software Documentation Only: QA-GLVAA-GZ

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

SOFTWARE LICENSING

The right to use the software is granted by the PATHWORKS for DOS client license (SPD 55.07.xx).

A license must be obtained in advance for each system on which the software is installed.

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

SOFTWARE PRODUCT SERVICES

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

SOFTWARE WARRANTY

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