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PCSA



Installing DECnet/PCSA VAXmate Client with DOS Diskettes

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MS-DOS, Version 3.3

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Preface

The Personal Computing Systems Architecture (PCSA) is an extension of DIGITAL's systems and networking architecture that merges VMS and MS-DOS environments. The PCSA network may include VAX, MicroVAX or VAXmate servers running VAX/VMS Services for MS-DOS or VAXmate Services for MS-DOS. It also includes the DECnet/PCSA Client software that runs on PC workstations and on VAXmate workstations. Other PCSA products include ThinWire Ethernet products and other peripherals, such as the LN03 Plus and LA75 Companion printers.

DIGITAL's PCSA network fully integrates all the elements of personal and corporate computing required for direct information access and sharing. Thus, it has computing and communication capabilities substantially better than those of conventional PC local area networks (LANs).

Manual Objectives

The purpose of this guide is to help the system administrator install VAXmate client software and maintain workstations in a network.

After installing the VAXmate client software, you may want to insert this guide in the binder of your *VAX/VMS Services for MS-DOS Installation Guide* or your *VAXmate Services for MS-DOS Administration Guide*, whichever is appropriate.

Intended Readers

This guide is intended for system administrators who need to install VAXmate client software and assumes:

- The network, including all cables, workstations, VAX computers, and other hardware, is connected. For information on connecting the network, refer to the *PCSA Overview* and the *Network Troubleshooting Guide*. For information on assembling the workstation, refer to your system handbook.
- The server has been installed. To install a VAX/VMS server, see the *VAX/VMS Services for MS-DOS Installation Guide*. To install a VAXmate server, see the *VAXmate Services for MS-DOS Administration Guide*.
- You are familiar with the associated documentation:
 - Your system handbook
 - Your server guide
 - MS-Windows User's Guide*
 - MS-DOS Reference Guide*
 - Network Troubleshooting Guide*
 - Using Networks from Your Workstation*

Manual Organization

This guide consists of four chapters and an index.

- | | |
|-----------|--|
| Chapter 1 | Contains general information and preliminary installation steps. You must complete the preliminary installation steps before proceeding to the other chapter that pertains to you. |
| Chapter 2 | Follow the installation procedures in this chapter if you use a VAX/VMS system for your server. |
| Chapter 3 | Follow the installation procedures in this chapter if you use a VAXmate server. |
| Chapter 4 | Describes how to install VAXmate client software on a local hard disk. Follow the installation procedures in this chapter if you do not have access to a local area network and want to run asynchronous DECnet. |

Conventions Used

Convention	Meaning
Ctrl/C	Hold down the Ctrl key and press the C key.
Ctrl/Y	Hold down the Ctrl key and press the Y key.
Ctrl/Z	Hold down the Ctrl key and press the Z key.
Ctrl/Alt/Del	Hold down the Ctrl and Alt keys while you press the Del key on the numeric keypad. The Del key is also labeled Sel. You use the Ctrl/Alt/Del keys to reboot the workstation.
Alt/Shift/Tab	Hold down both the Alt key and the Shift key while you press the Tab key.
colored type	In examples of computer dialog, or in instructions, what you type is shown in red.
black type	In examples of computer dialog, what the computer shows on the screen is shown in black.
case	You can type commands and parameters in uppercase or lowercase letters, or in a combination of both.
typing	Type all spaces and punctuation marks exactly as they are printed. Press the Return key after typing a command line.
[]	Square brackets in a command line indicate the optional command qualifiers. Do not type the brackets when specifying information within the brackets.
vertical list of options	A vertical list of options without square brackets ([]) indicates that you can specify any number of options (or in some cases, none, if the defaults apply).
...	An ellipsis (...) following an entry in a command line indicates that the entry can be repeated any number of times.
VAX/VMS server	A short name for VAX/VMS Services for MS-DOS.

Convention	Meaning
VAXmate server	A short name for VAXmate Services for MS-DOS.
	A vertical bar () in a command line indicates that you have a choice between two or more entries. You must select one entry, unless the entries are optional.
numbers	All numbers shown in this manual are in decimal form, unless otherwise noted.
default directory	The directory you are currently in.
default drive	The drive you are currently in.
workstation	A term used to include any personal or desktop computer used to communicate over a network and use the services available on that network. The term may include the VAXmate computer and PC workstations.

Chapter 1

Preparing to Install

DIGITAL's VAXmate client software includes the MS-DOS operating system, PCSA Networks, DECnet-DOS, MS-Windows, the on-line information system, the VT220 terminal emulator, and the Configuration Aide.

You can install the VAXmate client software on:

- A VAX/VMS server, with either:
 - A virtual disk service
 - A file service
- A VAXmate server
- A VAXmate's local hard disk

Before installing client software, complete the following steps.

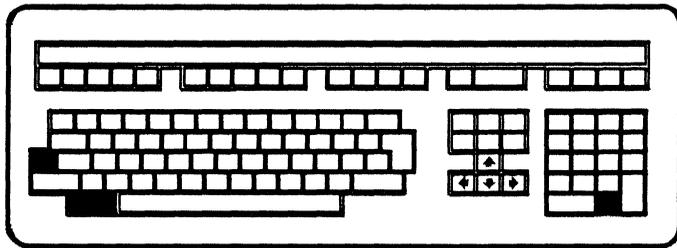
1. If you are installing the VAXmate client software on a server, your workstation must be connected to a local area network (LAN) through ThinWire Ethernet. The server must be connected to the same LAN.
2. Locate the VAXmate client software diskettes. Handle these very carefully because you have only one copy of each.
3. Know the DECnet node name and address of the server and the first workstation. Write this information down for later use.

Preparing to Install

4. Make a copy of the PCSA VM Client Install V2.0 diskette. To copy this diskette:
 - a. Insert the PCSA VM MS-DOS V3.3 diskette into drive A.
 - b. Turn on, or reboot, the workstation by pressing:
<Ctrl/Alt/Del>

Figure 1-1 identifies the positions of the keys used to reboot the workstation. Hold down the Ctrl and Alt keys and press the Del key.

Figure 1-1: Rebooting the Workstation



MR-1435-GE

- c. At the system prompt, type:

```
A:\>DISKCOPY A: A:
```

When prompted for the source diskette, insert the PCSA VM Client Install V2.0 diskette into drive A and press the Return key.

When prompted for the target diskette, remove the PCSA VM Client Install V2.0 diskette from drive A and insert the blank diskette into drive A. Press the Return key.

When the copy operation is finished, set aside the original PCSA VM Client Install V2.0 diskette. Use the copy of the PCSA VM Client Install V2.0 diskette in the installation procedure.

5. If you have a VAX/VMS server, you need to install the client software on the VAX/VMS server. Proceed to Chapter 2 for instructions.

If you have a VAXmate server, you need to install the client software on the VAXmate server. Proceed to Chapter 3 for instructions.

If you do not have access to a local area network (LAN) and want to run asynchronous DECnet, you need to install the client software on your local hard disk. The installation of the client software requires 10-Mbytes of your local hard disk. Proceed to Chapter 4 for instructions.

NOTE

If you have access to a LAN and want to install the client software on your local hard disk, use the Configuration Aide. For more information on the Configuration Aide, see *Using Networks from Your Workstation*.

Chapter 2

Installing on a VAX/VMS Server

If you have a VAX/VMS server, you need to install the VAXmate client software on the VAX/VMS server. The installation procedure copies client software from diskettes to the VAX computer over the network.

The installation procedure requires you to:

- Create the VAXmate system service
- Create the PCSA_ADMIN service
- Install the VAXmate client software on a VAX/VMS server
- Create an initial workstation diskette

The remainder of this chapter tells you how to install the client software on a VAX/VMS server and how to create and use the initial workstation diskette.

Installing VAXmate Client Software

After you complete the preliminary installation steps in Chapter 1, perform the following steps.

1. Register the workstation to be used in the installation procedure with the VAX/VMS server. To register the workstation, perform the following procedure at the VAX server:
 - a. Log into a privileged account on the VAX computer running the disk server.
 - b. Set the default to SYS\$MANAGER.

Installing on a VAX/VMS Server

- c. Run the PCSA_ADMIN utility by typing:
 \$ @PCSA_ADMIN
 - d. Select option 15 to add a node registration entry.
 - e. When prompted, type the workstation's DECnet node name and DECnet node address.
 - f. Exit the PCSA_ADMIN utility by pressing:
 <Ctrl/Z>
2. We recommend that you install the client software on a virtual disk service on your VAX/VMS server. You should also configure workstations to use this service to load system software. The use of a virtual disk service provides you with faster access to the VAXmate client software.
- You can, however, install on a file service. This is a slower method for accessing VAXmate client software. It does, however, offer the benefit of wide area network access to the files and is compatible with previous versions of PCSA.
- Go to step 3 if you are installing on a virtual disk service.
 - Go to step 4 if you are installing on a file service.
3. Perform this step only if you are installing client software on a virtual disk service. If you are installing client software on a file service, go to step 4.

To prepare to install on a virtual disk service:

- a. Make sure you have at least 20,000 blocks of disk space available on one disk to create a virtual disk service for the client software.
- b. If the disk server is not running, start it now.

To determine whether the disk server is running, type:

```
$ PCSA SHOW VERSION
```

If the disk server is running, the following messages are displayed:

```
LAD$KERNEL version      :   LAD$KERNEL V1.0
LADDRIVER  version      :   LADDRIVER  V1.0
```

To start the disk server, use LAD_STARTUP.COM. For more information about LAD_STARTUP.COM., see the *VAX/VMS Services for MS-DOS Administration Guide*.

- c. To create the virtual system disk in LAD\$SYSTEM_DISKS, type:

```
$ PCSA CREATE DISK VXSYS/TYPE=SYSTEM/CONTIGUOUS/SIZE=20MB  
/ALLOC=20480
```

If a virtual system disk was successfully created in LAD\$SYSTEM_DISKS, the following messages are displayed:

```
%PCSA-I-CREATEDISK, created SYS$SYSDEVICE:[PCSA.LAD]VXSYS.DSK  
%PCSA-I-FORMATDISK, formatting disk, size=20MB, allocation=  
20480/20480  
%PCSA-I-DISCREATED, SYS$SYSDEVICE:[PCSA.LAD]VXSYS.DSK
```

To create the virtual system disk in another area, type:

```
$ PCSA CREATE DISK dev:[dir]VXSYS/CONTIGUOUS/SIZE=20MB  
/ALLOC=20480
```

Where:

dev: Is the device.

dir Is the directory.

If the virtual system disk was successfully created in the area you specified, the following messages are displayed:

```
%PCSA-I-CREATEDISK, created dev:[dir]VXSYS.DSK  
%PCSA-I-FORMATDISK, formatting disk, size=20MB, allocation=  
20480/20480  
%PCSA-I-DISCREATED, dev:[dir]VXSYS.DSK
```

Where:

dev: Is the device.

dir Is the directory.

If there is insufficient contiguous space available, the virtual disk is created as a "contiguous best try" (the space in which the disk is created has the least number of breaks possible). A message displays if the virtual disk is created as a contiguous best try.

NOTE

This installation procedure creates a 20-Mbyte virtual disk, but allocates only 10-Mbytes. If, in the future, the disk becomes full, you can allocate more space using the PCSA MODIFY DISK command. See the

Installing on a VAX/VMS Server

VAX/VMS Services for MS-DOS Administration Guide for more information on this command.

- d. If you created the disk in LAD\$SYSTEM_DISKS, mount the virtual disk by typing:

```
$ PCSA MOUNT DISK VXSYS /TYPE=SYSTEM/ACCESS=WRITE
```

If the virtual disk was successfully mounted on LAD\$SYSTEM_DISKS, the following messages are displayed:

```
%PCSA-I-DISK MOUNTED, SYSSYSDEVICE:[PCSA.LAD]VXSYS.DSK  
%PCSA-I-MOUNTINFO, service name=VXSYS, server node=nodename
```

Where:

nodename Is the DECnet node name for the server.

If you created the disk on an alternate device, mount the disk by typing:

```
$ PCSA MOUNT DISK dev:[dir]VXSYS /TYPE=SYSTEM/ACCESS=WRITE
```

Where:

dev: Is the device.

dir Is the directory.

If the virtual disk was successfully mounted on an alternate device, the following messages are displayed:

```
%PCSA-I-DISK MOUNTED, dev:[dir]VXSYS.DSK  
%PCSA-I-MOUNTINFO, service name=VXSYS, server name=nodename
```

Where:

dev: Is the device.

dir Is the directory.

nodename Is the DECnet node name for the server.

Proceed now to step 5.

4. Perform this step only if you are installing client software on a file service. If you performed step 3, do not perform step 4.

To prepare to install to a file service:

- a. Make sure you have at least 20,000 blocks of disk space available on one disk to create a file service for the client software.
- b. If the file server is not running, start it now.

To determine whether the file server is running, type:

```
$ PCSA SHOW VERSION
```

If the file server is running, the following message is displayed:

```
PCFS_SERVER version : VAX/VMS server for MS-DOS V2.0
```

To start the file server, use PCFS_STARTUP.COM. For more information on PCFS_STARTUP.COM., see the *VAX/VMS Services for MS-DOS Administration Guide*.

- c. If you already have a VXSYS service on your file server from a previous version of VAXmate client software that has been upgraded with the VMS upgrade procedure, you can retain the previous version of software and install V2.0 client software as the service VXSYSV2.

To determine whether you have a VXSYS service, type:

```
$ PCSA SHOW FILE SERVER SERVICE/REGISTERED/SERVICE=VXSYS
```

If information is displayed about VXSYS, the service exists.

- d. To create a file service, type:

```
$ PCSA ADD SERVICE/DIRECTORY servicename/TYPE=SYSTEM  
$ PCSA GRANT/GROUP PUBLIC servicename servicename/ACCESS=READ  
$ PCSA GRANT username servicename /ACCESS=(READ,WRITE,CREATE)
```

Where:

servicename	Is the name of the file service you are creating. The default service name is VXSYS. If you are retaining a previous version of VXSYS, name this version VXSYSV2.
username	Is the user with read, write, and create privileges. For example, the user could be the system administrator.

These commands:

- Create a subdirectory in PCFS\$SYSTEM. The name of the subdirectory is the same as the service name.
- Grant all users access to the service.

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- Grant the specified user read, write, and create access to the service.

NOTE

To connect to the service with read, write, and create access, you must specify the username of the person to whom you granted this access.

5. If you do not have a PCSA_ADMIN service set up on your VAX/VMS server, you must create one before you install the client software. This service is required for the installation procedure and by the Configuration Aide.

To determine whether you have a PCSA_ADMIN service, type:

```
$ PCSA SHO FILE_SERVER SERVICES/AUTHORIZED/SERVICE=PCSA_ADMIN
```

If the information displayed indicates there are authorized users of this service, the service already exists and you do not need to create one.

To create a PCSA_ADMIN service, type the following at the system prompt:

```
$ PCSA ADD SERVICE/DIRECTORY PCSA_ADMIN/TYPE=SYSTEM
$ PCSA GRANT/GROUP PUBLIC PCSA_ADMIN/ACCESS=READ
$ PCSA GRANT username PCSA_ADMIN/ACCESS=(READ,WRITE,CREATE)
```

Where:

username Is the user with read, write, and create privileges. For example, the user could be the system administrator.

6. At the first VAXmate workstation, insert the copy of the PCSA VM Client Install V2.0 diskette into drive A and reboot the workstation by pressing:

```
<Ctrl/Alt/Del>
```

7. Next, select your keyboard. Use the arrow keys to highlight the appropriate selection, then press the Return key. The supported keyboards are:

- English (US)
- Canadian
- German
- Spanish
- French
- Norwegian
- Swedish

English (UK)
Danish
Finnish
Italian
Swiss (German)
Swiss (French)

8. Set the date and time.
9. Do not complete this step if you are installing client software on a file service; proceed to step 10.

Format the virtual disk, using the following procedure:

- a. Start the network by typing:

```
A:\>NET START LAD /N:nodename
```

Where:

nodename Is the DECnet node name of your local workstation.

- b. Connect to the virtual disk using the NET USE command. If your workstation has a hard disk with one partition or if it has no hard disk, use drive E. If your workstation has a hard disk with two partitions, use drive F. If your workstation has a hard disk with three partitions, use drive G, and so on.

For example, for a workstation that has a hard disk with one partition, type:

```
A:\>NET USE E: \\server\VXSYS /V
```

Where:

server Is the node where the virtual disk is stored.

For more information on the NET USE command, see *Using Networks from Your Workstation*.

- c. Remove the copy of the PCSA VM Client Install V2.0 diskette from drive A.
- d. Insert the PCSA VM MS-DOS V3.3 diskette into drive A and type:

```
A:\>FORMAT E: /S
```

- e. Remove the PCSA VM MS-DOS V3.3 diskette from drive A and insert the copy of the PCSA VM Client Install V2.0 diskette into drive A.

10. Now that the virtual disk is formatted, type:

```
A:\>INSTALL REMOTE
```

11. The INSTALL program prompts you for:

- Workstation node name:
Type the DECnet node name of the workstation at which you are installing the VAXmate client software.
- Workstation node address:
Type the DECnet node address of the workstation at which you are installing the VAXmate client software.
- Server node name:
Type the DECnet node name of the server on which you are installing the VAXmate client software.
- Server node address:
Type the DECnet node address of the server on which you are installing the VAXmate client software.

12. The INSTALL program asks:

```
Will installation be to a disk service (Y/N)?
```

If you are installing client software on a virtual disk, press the "Y" key for "YES". If you answer "Y", go to step 13.

If you are not installing on a virtual disk service, press the "N" key for "NO". If you answer "N", the INSTALL program asks:

```
Will installation be to a file service (Y/N)?
```

Press the "Y" key for "YES" if you want to install the client software on a file service. If you answer "Y", go to step 14.

If you answer "N" to both questions, the INSTALL program exits.

13. If you are installing the VAXmate client software on a virtual disk service, the INSTALL program starts the network and prompts you for:

- Drive to assign to the virtual disk [E:]:

Type the drive letter you want to connect to the virtual disk. The default is drive E. If your workstation has a hard disk with one partition or if it has no hard disk, use the default drive E by pressing the Return key. If your client workstation has a hard disk with two partitions, type the letter F. If your workstation has a hard disk with three partitions, type the letter G, and so on.

- Disk service name:

Type the service name for the virtual drive to which you are connecting. The default disk service name is VXSYS.

- Disk service password:

If you mounted the virtual disk service with a password, type the password. Press the Return key if no password is assigned.

Proceed to step 15.

14. If you are installing the VAXmate client software on a file service, the INSTALL program prompts you for:

- Service name for the system directory [VXSYS]:

Specify the system directory in the form service%username. For example, if you created a service VXSYS and granted write access privileges to MANAGER, type:

VXSYS%MANAGER

- Service password:

Type the password associated with the username.

15. Now, the INSTALL program begins a series of prompts, allowing you to choose whether to install individual PCSA software components.

NOTE

We recommend that you install all components and that you complete this procedure in one session.

If installation of client software is interrupted and you must begin the installation procedure again, you may answer "N" to prompts for software components that were installed prior to the interruption.

The INSTALL program asks:

Do you wish to install PCSA VM MS-DOS V3.3 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 16.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM MS-DOS V3.3 diskette into drive A.

16. Next, the INSTALL program asks:

Do you wish to install PCSA VM NETWORKS V2.0 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 17.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM Networks V2.0 diskette into drive A.

17. Next, the INSTALL program asks:

Do you wish to install DNET-VAXMATE 2.0 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 18.

If you type "Y" for "YES", the INSTALL program prompts you to insert the DNET-VAXmate 2.0 1 of 3 diskette into drive A.

When prompted, insert the DNET-VAXmate 2.0 2 of 3 diskette into drive A.

18. Next, the INSTALL program asks:

Do you wish to install DNET-VAXMATE 2.0 Development Tools (Y/N)?

This component of VAXmate client software is required if you want to use development tools.

If you type "N" for "NO", proceed to step 19.

If you type "Y" for "YES", the INSTALL program prompts you to insert the DNET-VAXmate 2.0 3 of 3 diskette into drive A.

19. Next, the INSTALL program asks:

Do you wish to install PCSA VM MS-WINDOWS 1.03 (Y/N)?

To use the Configuration Aide and the VT220 Terminal Emulator, you must install MS-Windows.

If you type "N" for "NO", proceed to step 20.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM MS-Windows 1.03 1 of 3 diskette into drive A.

When prompted, insert the remaining PCSA VM MS-Windows 1.03 diskettes into drive A.

20. Next, the INSTALL program asks:

Do you wish to install PCSA VM INFO. SYSTEM V2.0 (Y/N)?

This component of the VAXmate client software is required if you want to use PCSA on-line documentation.

If you type "N" for "NO", proceed to step 21.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM Info. System V2.0 diskette into drive A.

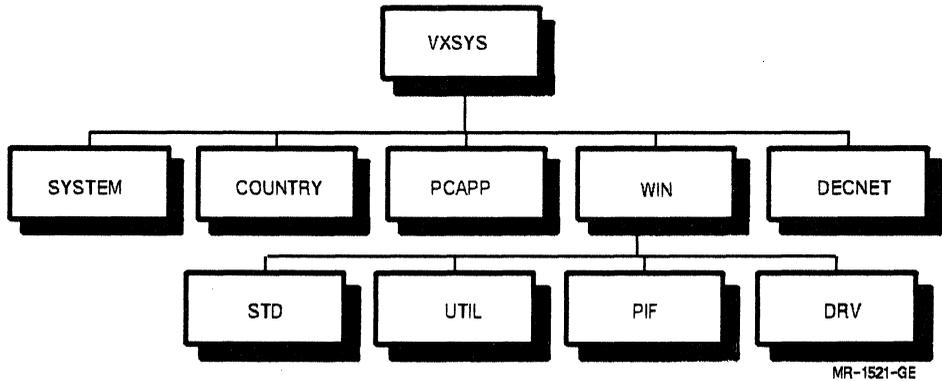
21. When prompted, insert the copy of the PCSA VM Client Install V2.0 diskette into drive A and press the Return key.

When the installation is complete, the INSTALL program displays the message:

Installation of PCSAVM Operating Environment V2.0 completed.

Figure 2-1 shows the VAXmate client directory structure the INSTALL program creates on the server.

Figure 2-1: VAXmate Client Directory Structure



22. If you installed the client software on a virtual disk, type the following command to ensure that the redirector is started:
23. If the server offering the PCSA_ADMIN service is different from the server on which you installed client software, type the following command:

```
A:\>NET START RDR
```

```
A:\>NET DEFINE nodename nodeaddress
```

Where:

nodename Is the DECnet node name of the node offering PCSA_ADMIN.

nodeaddress Is the DECnet node address of the server offering PCSA_ADMIN.

24. Copy the remote boot image used to remote boot VAXmate workstations by typing:

```
A:\>CD L:\DECNET
```

```
A:\>L:
```

```
L:\DECNET>NFT COPY/IMAGE/BLOCK VXBOOT.TSK node"SYSTEM  
password": :SYS$COMMON: [PCSA]*.*
```

Where:

- | | |
|----------|---|
| node | Is the node name for the VAX computer on which you are copying the remote boot image. |
| password | Is the password for the system manager's account. |

25. Now that the VAXmate client software is installed, you must convert your copy of the PCSA VM Client Install V2.0 diskette to an initial workstation diskette. An initial workstation diskette is the first key diskette configured for the workstation at which you installed the client software. This diskette provides you access to the system and application directories on your server.

To convert the copy of the PCSA VM Client Install V2.0 diskette to an initial workstation diskette:

- a. Insert the copy of the PCSA VM Client Install V2.0 diskette into drive A.
- b. Type:

```
L:\DECNET>KEYDISK server username
```

Where:

- | | |
|----------|---|
| server | Is the name of the server that offers the PCSA_ADMIN service. |
| username | Is the system administrator's user name for the PCSA_ADMIN service. |

- c. Next, you are prompted for:

- Username:
Enter the system administrator's user name for the PCSA_ADMIN service.
- Password:
Enter the password for the account specified by the username.

The KEYDISK command updates the PCSA_ADMIN service with the files required by the Configuration Aide. Then, the KEYDISK command converts your copy of the PCSA VM Client Install V2.0 diskette to an initial workstation diskette that you can use at the workstation at which you installed the client software.

The diskette can be used to reboot the first workstation, connect to a file or disk server, and run the Configuration Aide. The procedure for using the initial workstation diskette is described in the next section.

NOTE

It is not necessary to run the Configuration Aide at this time. When you are ready to do so, see "Using the Initial Workstation Diskette" in this chapter.

Perform step 26 if you installed the client software on a virtual disk.

26. If you installed the client software on a virtual disk, you must log in to the VAX/VMS system manager's account and issue commands to remount the virtual disk for shared read access.

Use the following procedure to remount the virtual disk for shared read:

- a. Log in to your system manager's account.

- b. Type:

```
$ PCSA DISMOUNT DISK VXSYS
```

- c. Mount the disk by typing:

```
$ PCSA MOUNT DISK dev:[dir]VXSYS VXSYS /ACCESS=READ  
/CONNECTIONS=100/TYPE=SYSTEM/PERMANENT
```

Where:

dev: Is the device.

dir Is the directory.

These commands mount the virtual disk for read-only access on a permanent basis and allow up to 100 client systems to connect.

Using the Initial Workstation Diskette

You can use the initial workstation diskette to:

- Reboot the first workstation
- Connect to a file or disk service
- Run the Configuration Aide

When you are ready to use the initial workstation diskette:

1. Insert the initial workstation diskette in drive A and reboot the workstation by pressing:

`<Ctrl/Alt/Del>`

2. When prompted, choose your keyboard and set the date and time.
3. If you installed the client software on a disk service, connect to the disk service by typing:

`A:\>CONNECT DISK service drv:`

Where:

service

Is the name of the disk service on which the service was installed. The default disk service name is VXSYS.

drv:

Is the drive for the disk service. If your workstation has a hard disk with one partition or if it has no hard disk, use drive E. If your workstation has a hard disk with two partitions, use drive F, and so on.

When prompted for the password for the service, type the password if one is assigned. If there is no password assigned for the service, press the Return key.

Proceed to step 5.

4. If you installed the client software on a file service, connect to the file service by typing:

`A:\>CONNECT FILE server service`

Installing on a VAX/VMS Server

Where:

server Is the nodename for the server on which you installed the client software.

service Is the name of the file service on which the software was installed. The default file service name is VXSYS.

When prompted for the username, press the Return key to connect to the file service with read-only access. If you require write access to the service, specify the user name and password.

5. Run the Configuration Aide by typing:

```
A:\>RUNAIDE server
```

Where:

server Is the name of the server offering the PCSA_ADMIN service. Normally, this is the same node on which the client software was installed. You must have issued a NET DEFINE command to register the server with your workstation.

When prompted for the username, type the user name for the person to whom you granted write access for the PCSA_ADMIN service. When prompted for the password, type the password for the user to whom you granted write access for the PCSA_ADMIN service.

For more information about setting up workstations for remote boot, running the Configuration Aide, and editing configuration files, see *Using Networks from Your Workstation*.

Chapter 3

Installing on a VAXmate Server

If you have a VAXmate server, you need to install the VAXmate client software on the VAXmate server. The installation procedure copies client software from diskettes to the VAXmate server over the network.

The installation process requires you to:

- Create the VAXmate system service
- Create the PCSA_ADMIN service
- Install the VAXmate client software on a VAXmate server
- Create an initial workstation diskette

This chapter tells you how to install VAXmate client software on a VAXmate server and explains how to create and use the initial workstation diskette.

Installing VAXmate Client Software

After you complete the preliminary installation steps in Chapter 1, perform the following steps.

1. Register the workstation to be used in the installation procedure with the VAXmate server. For more information on registering the workstation, see *VAXmate Services for MS-DOS Administration Guide*.

2. Create a directory and update your SERVER.INI file.
 - If a previous version of VAXmate client software already exists on your VAXmate server and you want to replace it with the VAXmate client software now being installed, do not complete this step; proceed to step 3.
 - If you want to retain the previous version of client software and install V2.0 of the software on the server as well, you must manually update the SERVER.INI file and create a root directory for the new installation. Choose a unique name to distinguish this new service. For example, if you are installing V2.0 of the client software, name the service VXSYSV2.

NOTE

Because of limited disk space on the VAXmate server, it may not be possible to have multiple versions of the client software stored on it. However, if you have a 40-Mbyte hard disk, you may be able to store multiple versions.

- If this is the first installation of VAXmate client software being installed on your file server, perform the following procedure. This procedure creates a directory for the service and edits the SERVER.INI file.
 - a. At the DOS prompt on the VAXmate server, type:

```
A:\>SYSDIR
```
 - b. When prompted, enter the number that corresponds to the type of workstation for which you are installing the client software. Select "1" for VAXmate workstations.
 - c. Next, enter the drive letter for the system directory.
 - d. When prompted for a password, press the Return key to accept the default password, which is MAINTAIN. Otherwise, type the password.

The SYSDIR program creates a directory and adds two lines to the SERVER.INI file. The first line grants users read access to the service and the second line grants read, write, and create privileges for the user with the specified password.

For example, the following lines are added to the SERVER.INI file if you select "1" for VAXmate, and accept the default password, MAINTAIN:

```
SHARE ISSYS=C:\ISSYS /R
SHARE ISWSYS=C:\ISSYS MAINTAIN
```

3. If you do not have a PCSA_ADMIN service set up on your VAXmate server, you must create one before you install client software. This service is required for the installation procedure and by the Configuration Aide.

To determine whether you have a PCSA_ADMIN service, check the contents of the SERVER.INI file. If there is a line that reads "SHARE PCSA_ADMIN = ", the service already exists and you do not have to create one.

To create the PCSA_ADMIN service, perform the following procedure at the VAXmate server:

- a. Create a directory for the PCSA_ADMIN service by typing:

```
C:\>MKDIR ADMIN
```

- b. Edit the SERVER.INI file and enter the following line:

```
SHARE PCSA_ADMIN=C:\ADMIN password
```

Where:

password

Is the password for the service.

4. Restart the server by typing:

```
C:\>SERVE
```

5. At the first workstation, insert the copy of the PCSA VM Client Install V2.0 diskette into drive A and reboot the workstation by pressing:

```
<Ctrl/Alt/Del>
```

6. Next, select your keyboard. Use the arrow keys to highlight the appropriate selection, then press the Return key. The supported keyboards are:

- English (US)
- Canadian
- German
- Spanish
- French
- Norwegian

Installing on a VAXmate Server

Swedish
English (UK)
Danish
Finnish
Italian
Swiss (German)
Swiss (French)

7. Set the date and time.

8. Then type:

```
A:\>INSTALL REMOTE
```

9. The INSTALL program prompts you for:

- Workstation node name:

Type the DECnet node name of the workstation at which you are installing the VAXmate client software.

- Workstation node address:

Type the DECnet node address of the workstation at which you are installing the VAXmate client software.

- Server node name:

Type the DECnet node name of the server on which you are installing the VAXmate client software.

- Server node address:

Type the DECnet node address of the server on which you are installing the VAXmate client software.

10. The INSTALL program asks:

Will installation be to a disk service (Y/N)?

Press the "N" key for "NO".

The INSTALL program then asks:

Will installation be to a file service (Y/N)?

Press the "Y" key for "YES".

If you answer "N" to both questions, the INSTALL program exits.

11. Now the INSTALL program starts the network and prompts you for the following information:
 - Service name for system directory [VXSYS]:
Change the default for the system directory from VXSYS to VXWSYS by typing VXWSYS, then pressing the Return key. Otherwise, type the service name you created using the SYSDIR command.
 - Service password:
Type the password associated with the service you created using the SYSDIR command.
12. Now, the INSTALL program begins a series of prompts, allowing you to choose whether to install individual PCSA software components.

NOTE

We recommend that you install all components and that you complete this procedure in one session.

If installation of client software is interrupted and you must begin the installation procedure again, you may answer "N" to prompts for software components that were installed prior to the interruption.

The INSTALL program asks:

Do you wish to install PCSA VM MS-DOS V3.3 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 13.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM MS-DOS V3.3 diskette into drive A.

13. Next, the INSTALL program asks:

Do you wish to install PCSA VM NETWORKS V2.0 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 14.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM NETWORKS V2.0 diskette into drive A.

14. Next, the INSTALL program asks:

Do you wish to install DNET-VAXMATE 2.0 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 15.

If you type "Y" for "YES", the INSTALL program prompts you to insert the DNET-VAXMATE 2.0 1 of 3 diskette into drive A.

When prompted, insert the DNET-VAXmate 2.0 2 of 3 diskette into drive A.

15. Next, the INSTALL program asks:

Do you wish to install DNET-VAXMATE 2.0 Development Tools (Y/N)?

This component of the VAXmate client software is required if you want to use development tools.

If you type "N" for "NO", proceed to step 16.

If you type "Y" for "YES", the INSTALL program prompts you to insert the DNET-VAXMATE 2.03 3 of 3 diskette into drive A.

16. Next, the INSTALL program asks:

Do you wish to install PCSA VM MS-WINDOWS 1.03 (Y/N)?

To use the Configuration Aide and the VT220 Terminal Emulator, you must install the the MS-Windows component.

If you type "N" for "NO", proceed to step 17.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM MS-Windows 1.03 1 of 3 diskette into drive A.

When prompted, insert the remaining PCSA VM MS-Windows 1.03 diskettes into drive A.

17. Next, the INSTALL program asks:

Do you wish to install PCSA VM INFO. SYSTEM V2.0 (Y/N)?

This component of the VAXmate client software is required if you want to use PCSA on-line documentation.

If you type "N" for "NO", proceed to step 18.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM Info. System V2.0 diskette into drive A.

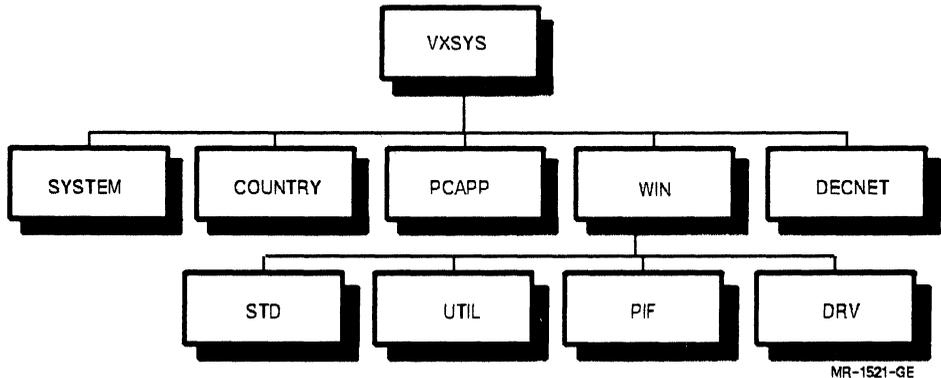
18. When prompted, insert the copy of the PCSA VM Client Install V2.0 diskette into drive A and press the Return key.

When the installation is complete, the INSTALL program displays the message:

Installation of PCSAVM Operating Environment V2.0 completed.

Figure 3-1 shows the VAXmate client directory structure the INSTALL program creates on the server.

Figure 3-1: VAXmate Client Directory Structure



19. If the server offering the PCSA_ADMIN service is different from the server on which you installed client software, type the following command:

```
A:\>NET DEFINE nodename nodeaddress
```

Where:

nodename Is the DECnet node name of the node offering PCSA_ADMIN.

nodeaddress Is the DECnet node address of the server offering PCSA_ADMIN.

20. Now that the client software is installed, you must convert your copy of the PCSA VM Client Install V2.0 diskette to an initial workstation diskette. An initial workstation diskette is the first key diskette configured for the workstation at which you installed the client software. This diskette provides you with access to the system and application directories on your server.

To convert the copy of the PCSA VM Client Install V2.0 diskette to an initial workstation diskette:

- a. Change directories to the L drive by typing:

```
A:\>CD L:\DECNET
A:>L:
```

- b. Insert the copy of the PCSA VM Client Install V2.0 diskette into drive A.

- c. Type:

```
L:\DECNET>KEYDISK server username
```

Where:

server Is the name of the server that offers the PCSA_ADMIN service.

username Is the system administrator's user name for the PCSA_ADMIN service.

- d. Next, you are prompted for:

- Username:

Enter the system administrator's user name for the PCSA_ADMIN service.

- Password:

Enter the password for the account specified by the username.

The KEYDISK command updates the PCSA_ADMIN service with the files required by the Configuration Aide. Then, the KEYDISK command converts your copy of the PCSA VM Client Install V2.0 diskette to an initial workstation diskette that you can use on the workstation at which you installed the client software.

When KEYDISK is finished, you can use the initial workstation diskette to reboot the first workstation, connect to a file or disk server, and run the Configuration Aide. For more information about the Configuration Aide, see *Using Networks from Your Workstation*.

NOTE

It is not necessary to run the Configuration Aide at this time. When you are ready to do so, go to "Using the Initial Workstation Diskette" in this chapter.

Using the Initial Workstation Diskette

You can use the initial workstation diskette to:

- Reboot the first workstation
- Connect to a file service
- Run the Configuration Aide

When you are ready to use the initial workstation diskette:

1. Insert the initial workstation diskette in drive A and reboot the workstation by pressing:

```
<Ctrl/Alt/Del>
```

2. When prompted, select your keyboard and set the date and time.
3. Connect to the file service by typing:

```
A:\>CONNECT FILE server service
```

Where:

server	Is the nodename on which you installed the client software.
service	Is the name of the file service on which the software was installed. The default file service name is VXSYS.

When prompted for the username, press the Return key to connect to the file service with read-only access. If you require write access to the service, specify the user name and password.

4. Run the Configuration Aide by typing:

```
A:\>RUNAIDE server
```

Where:

server	Is the name of the server offering the PCSA_ADMIN service. Normally, this is the same node on which the client software was installed. You must have issued a NET DEFINE command to register the server with your workstation.
--------	--

When prompted for the username, type the user name for the person to whom you granted write access for the PCSA_ADMIN service. When prompted for the password, type the password for the user to whom you granted write access for the PCSA_ADMIN service.

Installing on a VAXmate Server

For more information about setting up workstations for remote boot, running the Configuration Aide, and editing configuration files, see *Using Networks from Your Workstation*.

Chapter 4

Installing on a Local Hard Disk for Asynchronous DECnet

If you do not have access to a local area network (LAN) and want to run asynchronous DECnet, you need to install the client software on your local hard disk. The installation of the client software requires 10-Mbytes of your hard disk.

NOTE

PCSA is designed to be run with Ethernet communications. However, casual users can run PCSA using asynchronous DECnet. Because network performance is decreased, we recommend only casual users run PCSA using asynchronous DECnet.

This chapter tells you how to:

- Prepare your hard disk
- Install the VAXmate client software on your local hard disk
- Set up for asynchronous DECnet
- Run asynchronous DECnet

NOTE

If you have access to a LAN and want to install the client software on your local hard disk, use the Configuration Aide. For more information on the Configuration Aide, see *Using Networks from Your Workstation*.

Preparing Your Hard Disk

Before installing client software on your local hard disk, make sure the disk is formatted. If it is a new disk or you want to format another partition, start the workstation with the PCSA VM MS-DOS V3.3 diskette and format the disk with the FORMAT utility. For more information on formatting a hard disk, see the *MS-DOS Reference Guide*.

If your hard disk currently contains a previous version of MS-DOS, upgrade the disk according to the instructions in the *PCSA Client Release Notes*.

Installing VAXmate Client Software

After you complete the preliminary installation steps in Chapter 1, perform the following steps:

1. Insert the copy of the PCSA VM Client Install V2.0 diskette into drive A and reboot the workstation by pressing:

`<Ctrl/Alt/Del>`

2. Next, select your keyboard. Use the arrow keys to highlight the appropriate selection, then press the Return key. The supported keyboards are:

- English (US)
- Canadian
- German
- Spanish
- French
- Norwegian
- Swedish
- English (UK)
- Danish
- Finnish
- Italian
- Swiss (German)
- Swiss (French)

3. Set the date and time.
4. Type:

`A:\>INSTALL LOCAL`

5. The INSTALL program prompts you for:
 - Drive for software installation [C:]:

Press the Return key to accept the default, which is drive C. Otherwise, type the letter of the hard disk partition on which you are installing the VAXmate client software.
6. Now, the INSTALL program begins a series of prompts, allowing you to choose whether to install individual PCSA software components.

NOTE

We recommend that you install all components and that you complete this procedure in one session.

If installation of client software is interrupted and you must begin the installation procedure again, you may answer "N" to prompts for software components that were installed prior to the interruption.

The INSTALL program asks:

Do you wish to install PCSA VM MS-DOS V3.3 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 7.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM MS-DOS V3.3 diskette into drive A.

7. Next, the INSTALL program asks:

Do you wish to install PCSA VM NETWORKS V2.0 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 8.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM Networks V2.0 diskette into drive A.

8. Next, the INSTALL program asks:

Do you wish to install DNET-VAXMATE 2.0 (Y/N)?

This is a required component of VAXmate client software.

If you type "N" for "NO", proceed to step 9.

If you type "Y" for "YES", the INSTALL program prompts you to insert the DNET-VAXmate 2.0 1 of 3 diskette into drive A.

Installing on a Local Hard Disk for Asynchronous DECnet

When prompted, insert the DNET-VAXmate 2.0 2 of 3 diskette into drive A.

9. Next, the INSTALL program asks:

Do you wish to install DNET-VAXMATE 2.0 Development Tools (Y/N)?

This component of the VAXmate client software is required if you want to use development tools.

If you type "N" for "NO", proceed to step 10.

If you type "Y" for "YES", the INSTALL program prompts you to insert the DNET-VAXmate 2.0 3 of 3 diskette into drive A.

10. Next, the INSTALL program asks:

Do you wish to install PCSA VM MS-WINDOWS 1.03 (Y/N)?

This component of the VAXmate client software is required if you want to run MS-Windows.

If you type "N" for "NO", proceed to step 11.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM MS-Windows 1.03 1 of 3 diskette into drive A.

When prompted, insert the remaining PCSA VM MS-Windows 1.03 diskettes into drive A.

11. Next, the INSTALL program asks:

Do you wish to install PCSA VM INFO. SYSTEM V2.0 (Y/N)?

This component of the VAXmate client software is required if you want to use PCSA on-line documentation.

If you type "N" for "NO", proceed to step 12.

If you type "Y" for "YES", the INSTALL program prompts you to insert the PCSA VM Info. System V2.0 diskette into drive A.

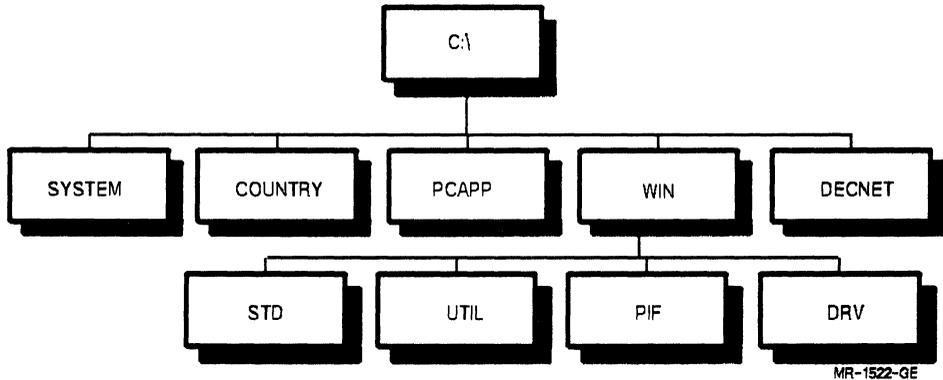
12. When prompted, insert the copy of the PCSA VM Client Install V2.0 diskette into drive A and press Return key.

When the installation is complete, the INSTALL program displays the message:

Installation of PCSAVM Operating Environment V2.0 completed.

Figure 4-1 shows the directory structure the INSTALL program creates on the hard disk.

Figure 4-1: Local Hard Disk Directory Structure



Setting Up for Asynchronous DECnet

Before you can run the network software, you must create an executor database for your workstation. An executor database is a collection of network information for a specific node. You must also create a node database for all nodes with which you will be communicating.

1. To prepare to create an executor database for your workstation:
 - a. Remove the copy of the PCSA VM Client Install V2.0 2 of 2 diskette from drive A.
 - b. Determine whether you have an AUTOEXEC.BAT file on your hard disk by typing:

```
C>DIR AUTOEXEC.BAT
```

If an AUTOEXEC.BAT file is displayed, rename it AUTOEXEC.OLD by typing:

```
C:\>RENAME AUTOEXEC.BAT AUTOEXEC.OLD
```

If you do not have an AUTOEXEC.BAT file on your hard disk, it is not necessary to create one at this time.

Installing on a Local Hard Disk for Asynchronous DECnet

- c. Determine whether you have a CONFIG.SYS file on your hard disk by typing:

```
DIR CONFIG.SYS
```

If you do not already have a CONFIG.SYS file on your hard disk, create one now.

- d. Add the following lines to your CONFIG.SYS file:

```
LASTDRIVE=Z  
BUFFERS=10  
FILES=20
```

- e. Reboot your workstation by pressing:

```
<Ctrl/Alt/Del>
```

- f. Set the date and time.

- 2. To create an executor database:

- a. Set the path for DECnet asynchronous communications by typing:

```
C>PATH C:\SYSTEM;C:\DECNET
```

- b. Copy the correct MSNET.INI file by typing:

```
C:\>COPY C:\DECNET\MSNET.DCP C:\DECNET\MSNET.INI
```

NOTE

If you want to return to Ethernet communications, copy the MSNET.ETH file to the MSNET.INI file and delete the DECPARM.DAT file. Then, issue the NET INSTALL command to rebuild your database.

- c. Type:

```
C>NET INSTALL nodename nodenumber speed modem state
```

Installing on a Local Hard Disk for Asynchronous DECnet

Where:

nodename	Is the DECnet node name for the workstation.
nodenumber	Is the DECnet node address for the workstation.
speed	Is the speed of the serial line.
modem	Is the modem support, either FULL or NULL. If you want DECnet DOS to respond to the modem control signals of your modem, specify FULL. Otherwise, specify NULL.
state	Is the operational state of the line when DECnet is started. Set the state to ON when using a hardwired dedicated DECnet line to run asynchronous DECnet. Set the state to OFF when using a dedicated DECnet line with a modem or a dynamically switched terminal line.

3. To create a node database, you must define node entries for all nodes with which you communicate.

- a. If you communicate directly with a server node, type:

```
C>NET DEFINE servername servernumber
```

Where:

servername	Is the DECnet name of the server node.
servernumber	Is the DECnet node number of the server node.

- b. If you communicate with nodes that are not server nodes, define them by typing the following for each node:

```
C>NCP DEFINE NODE nodenumber NAME nodename {USER username  
PASSWORD password}
```

Installing on a Local Hard Disk for Asynchronous DECnet

Where:

nodenumber	Is the node number of the DECnet node.
nodename	Is the name of the DECnet node.
username	Is optional and should only be supplied if you want to specify the user name for a default account for accessing the remote node.
password	Is optional and should only be supplied if you want to specify the password for a default account for accessing the remote node.

4. If you renamed an existing AUTOEXEC.BAT file to AUTOEXEC.OLD in step 1, rename the AUTOEXEC.OLD file to AUTOEXEC.BAT by typing:

```
C>RENAME AUTOEXEC.OLD AUTOEXEC.BAT
```

If you do not have an AUTOEXEC.BAT file, create one now.

5. Edit your AUTOEXEC.BAT file to include the VAXmate client software in the workstation's path and start the network automatically.

- a. To include the VAXmate client software in the workstation's path, add the following line to your AUTOEXEC.BAT file:

```
C>PATH = C:\PCAPP;C:\WIN\UTIL;C:\WIN\dir;C:\SYSTEM;C:\DECNET
```

Where:

dir	Is the MS-Windows directory STD or the directory created with the MS-Windows SETUP utility.
-----	---

- b. To automatically start the network, add the following line to your AUTOEXEC.BAT file:

```
C>NET START RDR
```

You can also start DECnet manually by typing the NET START RDR command at the MS-DOS prompt.

Running Asynchronous DECnet

You can run asynchronous DECnet from your workstation using either of the following lines:

- A dedicated DECnet line
- A dynamically switched terminal line

Both types of lines used for running asynchronous DECnet can be connected to the VAX computer through a modem or be hardwired directly to the VAX computer.

Running Asynchronous DECnet from a Dedicated DECnet Line

To run asynchronous DECnet using a dedicated DECnet line connected through a modem:

1. Reboot your workstation by pressing:
`<Ctrl/Alt/Del>`
2. Make sure your AUTOEXEC.BAT file started the network.
3. Connect to the DECnet line through the modem. To do so:
 - a. Enter terminal emulation.
 - b. Call the VAX computer.
 - c. Exit terminal emulation to return to DOS.
4. Make sure the DECnet executor state is ON by typing:

```
NCP>SHOW EXEC
```

If the executor state is OFF, type:

```
NCP>SET EXEC STATE ON
```

5. Make sure the line state is ON by typing:

```
NCP>SHOW LINE
```

If the line state is OFF, type:

```
NCP>SET LINE STATE ON
```

Installing on a Local Hard Disk for Asynchronous DECnet

To run asynchronous DECnet using a dedicated DECnet line hardwired directly to the VAX computer:

1. Reboot your workstation by pressing:
`<Ctrl/Alt/Del>`
2. Make sure your AUTOEXEC.BAT file started the network.
3. Make sure the DECnet state is ON.

Running Asynchronous DECnet from a Dynamically Switched Terminal Line

A dynamically switched terminal line is a terminal line that you can switch to a DDCMP (DECNET) line. The VAX computer uses the DYN SWITCH program to switch the line. To set up the DYN SWITCH program, see the *VAX/VMS Services for MS-DOS Administration Guide*.

To run asynchronous DECnet from a dynamically switched terminal line:

1. Reboot your workstation by pressing:
`<Ctrl/Alt/Del>`
2. Make sure the DECnet line state is set to OFF by typing:
`NCP>SHOW LINE`
If the line state is ON, type:
`NCP>SET LINE STATE OFF`
3. If you use an internal modem on a VAXmate, change the default device from an external modem to an internal modem by typing:

```
NCP>SET LINE DEVICE COM-2
NCP>DEFINE LINE DEVICE COM-2
```

If, in the future, you want to change the default device to an external modem again, type:

```
NCP>SET LINE DEVICE COM-1
NCP>DEFINE LINE DEVICE COM-1
```

4. Make sure the terminal line/emulator is set for 8 bit characters with no parity as described in the *VAX/VMS Services for MS-DOS Administration Guide*.

Installing on a Local Hard Disk for Asynchronous DECnet

5. Make sure a receive password has been set for your node. For more information on receive passwords, see the *VAX/VMS Services for MS-DOS Administration Guide*.

6. Define the workstation's executor transmit password to match the receive password on the server by typing:

```
NCP>SET EXEC TRANSMIT PASSWORD password
```

Where:

password

Is the executor's transmit password that matches the receive password set on the VAX computer. Type the password in uppercase.

7. Make sure the baud rate of the VAX computer is set to equal the baud rate of the workstation.
8. Connect to the VAX computer as a normal terminal using terminal emulation and, if necessary, a modem. To do so:
 - a. Run terminal emulation.
 - b. Call the VAX computer if you connect to the VAX computer through a modem.

9. When the DCL prompt displays, you are ready to switch the line. Type:

```
$ SET TERMINAL /PROTOCOL=DDCMP/SWITCH=DECNET/MANUAL
```

10. Exit terminal emulation to return to DOS.

11. Turn on the DECnet line by typing:

```
NCP>SET LINE STATE ON
```

You are now ready to connect to PCSA services.

12. When you are ready to exit asynchronous DECnet communications, type:

```
NCP>SET LINE STATE HANGUP
```


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