NMCC/VAX ETHERnim Installation

Order No. AA-MM52B-TE

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This guide explains how to install and verify the NMCC/VAX ETHERnim software on a VAX system running VMS, and how to install an ETHERnim subtask on the remote nodes to be monitored.

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Operating System and Version:	VAX/VMS Version 5.0 and later
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Preface

This guide explains how to install and verify the NMCC/VAX ETHERnim software on a VAX system running VMS. It also describes how to install an ETHERnim subtask on remote nodes that will be monitored.

Intended Audience

This guide is for the system manager or network manager responsible for installing the NMCC/VAX ETHERnim software on a VMS system on the Ethernet. A *system manager* is responsible for the VMS system that is about to be established as an NMCC/VAX ETHERnim host. A *network manager* is the person responsible for the local area network (LAN).

To use this guide effectively, you should be familiar with both DECnet Phase IV network management concepts and the VMS operating systems.

Associated Documents

There is additional NMCC/VAX ETHERnim documentation that you may find helpful:

- *NMCC/VAX ETHERnim Release Notes* (on-line)

  This collection of notes contains information and updates not included in the NMCC/VAX ETHERnim manuals. The release notes are delivered on-line as part of the software distribution kit.

- *NMCC/VAX ETHERnim User's Guide*

  Describes how to use NMCC/VAX ETHERnim to monitor network activity.

- *NMCC/VAX ETHERnim Pocket Reference Guide*

  Summarizes the use of NMCC/VAX ETHERnim.

Conventions

Familiarizing yourself with the conventions discussed in this section will help you use this manual effectively. The following conventions apply to numbers:

- All numbers are decimal unless otherwise noted.
- All Ethernet addresses are given in hexadecimal.

Graphic Conventions Used in This Manual

Conventions	Meanings
Special type	Indicates an example of system output or user input. System output is in black type; user input is in red type.
UPPERCASE	In command lines, indicates keywords to be entered. Note that you can type the characters in either uppercase or lowercase. Command keywords can be abbreviated to the smallest number of characters that your system accepts. For example, the following two commands are the same: `NCP> SHOW NODE` *node-name* or `NCP> SH N` *node-name*
italics	Indicates a variable.
bold	Indicates an important term that is defined in the text.
[ ]	In installation dialogues, indicate that the enclosed value is the default. To specify the default, press Return. To specify another value, type it after the brackets and press Return. In command lines, indicate that you can enter one, and only one, of the enclosed options, but that none is required. Do not type the brackets.
Key	Indicates that you should press the specified key.
Ctrl/*x*	Indicates that you should hold down the Ctrl key, then press the key specified by *x*.

NOTE

Throughout the manual it is assumed that user input will only be entered by pressing Return at the end of a command line.

1 Preparing to Install the NMCC/VAX ETHERnim Software

This chapter describes the hardware and software requirements and the tasks you must perform before installing the NMCC/VAX ETHERnim software.

1.1 Checking the Contents of the Kit

The NMCC/VAX ETHERnim software is available on a variety of distribution media. Your Bill of Materials specifies the quantity and contents of your media. Contact your Digital Equipment Corporation representative if any components of the kit are missing.

1.2 Choosing a Suitable Host System

NMCC/VAX ETHERnim performance depends on a number of factors, including:

- The host system CPU size
- The other applications being run on the host system
- The size of the network being monitored
- The NMCC/VAX ETHERnim functions being invoked

System tuning is the responsibility of the system manager.

The NMCC/VAX ETHERnim host system should not be a designated area router because designated area routers typically handle large amounts of traffic. If the host system were a designated area router, the NMCC/VAX ETHERnim application would have to contend with DECnet for system resources and might result in timeouts for the LAN. This is not a failure condition, but the performance of the network and the Ethernet application will suffer.

1.3 Required Software

The NMCC/VAX ETHERnim software must be installed on a VMS system running DECnet. For the required version numbers, refer to the System Software Addendum (SSA). The SSA also lists the required VMS classes.

1.4 Required Disk Space

NMCC/VAX ETHERnim requires that at least 4000 disk blocks be available during installation. Once installed, NMCC/VAX ETHERnim requires at least 5500 disk blocks to run.

1.5 Required System Parameters

The system parameter MAXBUF must have a value of 1584. Other default system parameter values are sufficient.

To determine the current value of MAXBUF and modify it, if necessary, follow this procedure (be sure that you have system manager privileges before you begin):

1. Log in to the system account and enter the following DCL command to invoke the SYSGEN utility:

   ```
   $ RUN SYS$SYSTEM:SYSGEN
   ```

2. Enter the following SYSGEN commands to display current parameter settings:

   ```
   SYSGEN> USE CURRENT
   SYSGEN> SHOW MAXBUF
   ```

   SYSGEN displays the current value of the parameter:

   ```
   Parameter Name   Current  Default  Minimum  Maximum  Unit  Dynamic
   --------------   -------  -------  -------  -------  ----  -------
   MAXBUF              2048     2048     1700    64000  Bytes       D
   ```

Note whether the value must be modified. Issue the EXIT command.

3. If the current value is lower than the required value, modify it by editing the SYS$SYSTEM:MODPARAMS.DAT file, which contains statements that modify the system default parameter settings.

   To define a new value for a parameter, use a statement like the following one: MAXBUF = 1584

4. Run the AUTOGEN command file to recompute your system parameters. Enter the following commands:

   ```
   $ @SYS$UPDATE:AUTOGEN SAVPARAMS GENPARAMS
   $ @SYS$UPDATE:AUTOGEN SETPARAMS REBOOT
   ```

   Because these parameters are not dynamic, your system must be rebooted for the new value to take effect. AUTOGEN will perform an automatic shutdown and reboot when it has finished changing the parameter setting. For more information about using AUTOGEN, see the instructions on modifying system parameters in the VMS documentation on system management and operations.

1.6 Approximate Time Required for Installation

Installing and verifying NMCC/VAX ETHERnim takes about 20 minutes, depending on your processor type, system load, and distribution media type.

1.7 VMS License Management Facility

To install and operate NMCC/VAX ETHERnim on a VMS V5.x system, you must register your software license with the VMS License Management Facility (LMF) utility.

The Product Authorization Key (PAK), which is shipped with NMCC/VAX ETHERnim, contains the license information you need. The PAK is a paper certificate that contains information about your license to operate NMCC/VAX ETHERnim.

It is best to register your NMCC/VAX ETHERnim license before you perform the installation. During the installation, you are asked if you have registered the NMCC/VAX ETHERnim license and loaded the appropriate authorization key. If you have not already done so, you can complete the installation, but you will not be able to run the Installation Verification Procedure (IVP) or use NMCC/VAX ETHERnim. Once you perform the license registration and load an authorization key, you can run the IVP and use NMCC/VAX ETHERnim.

To register a license under VMS V5.x, first log in to the system manager's account, SYSTEM. There are two ways to perform the registration:

- Invoke the SYS$UPDATE:VMSLICENSE.COM procedure. When it prompts you for information, respond with data from your PAK.

  or

- Issue the LICENSE REGISTER DCL command with the appropriate qualifiers that correspond to information on the PAK.

For complete information on using LMF, see the *VMS License Management Utility Manual*.

1.8 Release Notes

The distribution kit includes release notes, which contain information not in this documentation that Digital Equipment Corporation strongly recommends that you read before proceeding with the installation.

You can obtain the release notes during product installation; see Chapter 2. If you include OPTIONS N in the command that invokes VMSINSTAL, the installation procedure asks if you want to display or print the release notes. It is important to review the release notes in case they contain information that might affect the product installation.

After the installation, VMSINSTAL copies the release notes to the text file: SYS$HELP:ENIM022.RELEASE_NOTES

You can also access the release notes file through the on-line Help facility. For example, you can review the DECmcc SMS release notes through the Help facility after the installation is completed by entering the following command:

```
$ HELP ENIM022 RELEASE_NOTES
```

2

Installing and Verifying NMCC/VAX ETHERnim on the Host

This chapter explains how to install the NMCC/VAX ETHERnim software and verify the installation.

2.1 The Installation Procedure

NMCC/VAX ETHERnim is installed using the VMSINSTAL command procedure. The VMSINSTAL procedure helps ensure a successful NMCC/VAX ETHERnim installation by leading you through the procedure with simple prompts and questions. Text shown in square brackets in this installation dialogue is the default selection.

1. Log into the system manager account.
2. Back up the system disk. If the system or installation procedure fails, the backup copy of the system disk can be used to rebuild the system.
3. Ensure that DECnet-VAX is running. DECnet-VAX must be running to perform the Installation Verification Procedure (IVP) described in Section 2.2.
4. To begin the installation, type:

   ```
   $ @SYS$UPDATE:VMSINSTAL ENIM022 device-identifier OPTIONS N
   ```

   ENIM022 installs Version 2.2 of NMCC/VAX ETHERnim.

device-identifier specifies the name of the device on which you plan to mount the distribution media. For example, MTA0: is the device name for a tape drive. It is not necessary to use the console drive for this installation. However, if you do use the console drive, you should replace any media you removed once the installation is completed.

OPTIONS N instructs VMSINSTAL to prompt you later on in the procedure to display or print the release notes. If you do not include the OPTIONS N parameter, VMSINSTAL does not prompt you to display or print the release notes. Digital Equipment Corporation recommends that you read the release notes before proceeding with the installation.

VMSINSTAL has several other options. For more information about VMSINSTAL, see the *VMS System Manager's Manual*.

The following message shows that the installation procedure has begun:

```
VAX/VMS Software Product Installation Procedure V5.0
It is date at time.
Enter a question mark (?) at any time for help.
```

The system may display one or more system status messages, which always begin with a %. If any status messages are displayed, go to step 5. Otherwise, go to step 6.

5. After the status messages are displayed, the following message is displayed:

   ```
   * Do you want to continue anyway [NO]?
   ```

   Type Y and press Return to continue the installation. If you type N and press Return or just press Return, the installation procedure stops without installing NMCC/VAX ETHERnim and the following message is displayed:

   ```
   VMSINSTAL procedure done at time
   ```

   You return to the VMS command level.

6. The system displays the following question:

   ```
   * Are you satisfied with the backup of your system disk [YES]?
   ```

   If you backed up the system disk in step 2, press Return to accept the default and continue the installation procedure. Otherwise, type NO to terminate the installation, backup the system disk, and restart VMSINSTAL.

7. The system displays the following:

```
Please mount the first volume of the set on device-identifier
* Are you ready?
```

The *device-identifier* shown is the one you entered in step 4 of this procedure, where you invoked VMSINSTAL. After mounting the volume in the drive, enter YES to begin the NMCC/VAX ETHERnim installation. The following system messages indicate that the installation has begun.

```
The following products will be processed:

ENIM V2.2

Beginning installation of ENIM V2.2 at time.

%VMSINSTAL-I-RESTORE, Restoring product Saveset A...
```

8. If you specified OPTIONS N when you invoked VMSINSTAL, you are given five options for reviewing the release notes.

```
Release Notes Options:

    1. Display release notes
    2. Print release notes
    3. Both 1 and 2
    4. Copy release notes to SYS$HELP
    5. Do not display, print, or copy release notes

* Select option [2]:
```

If you select option 1, VMSINSTAL displays the release notes immediately on the terminal. You can terminate the display at any time and return to the installation by pressing Ctrl/C.

If you select option 2, VMSINSTAL prompts you for the name of the print queue that you want to use:

```
* Queue name [SYS$PRINT]:
```

You can enter a queue name or press Return to send the file to the default print device.

If you select option 3, VMSINSTAL displays the release notes immediately on the console terminal, and then prompts you for a queue name for the printed version.

If you select option 4, VMSINSTAL copies the release notes to the SYS$HELP directory, where they can be accessed through the VMS Help facility.

If you select option 5, VMSINSTAL continues the installation without taking any of the actions described above.

9. VMSINSTAL now asks if you want to continue the installation. To continue, enter YES. Otherwise, press Return. The release notes are copied to SYS$HELP:ENIM022.RELEASE_NOTES. For example:

```
* Do you want to continue the installation [N]?:  YES
%VMSINSTAL-I-RELMOVED, The product's release notes have been successfully
   moved to SYS$HELP.
```

NOTE

The name of the release notes file installed by VMSINSTAL consists of the current product name and version number. To maintain a history of product changes, do not delete release notes for previous versions of NMCC/VAX ETHERnim.

VMSINSTAL begins the installation, displaying the following message:

```
        NMCC/VAX ETHERNIM V2.2  installation beginning...
```

10. VMSINSTAL then displays information about the software license and asks if you have registered and loaded your authorization key for NMCC/VAX ETHERnim:

```
        Product:        ETHERNIM
        Producer:       DEC
        Version:        2.2
        Release Date:   05-JAN-1990

* Does this product have an authorization key registered and loaded?
```

Answer YES if you have already registered and loaded your authorization key. If you have not registered and loaded your authorization key, you should answer NO to this question. You will not be able to run the Installation Verification Procedure (IVP) or use NMCC/VAX ETHERnim unless an authorization key is registered and loaded. Be certain that this has been completed before proceeding with the installation verification. For instructions on registering and loading a key, see the *VMS License Management Utility Manual*.

11. VMSINSTAL now asks you where to place the ETHERnim files. In response to the prompts, enter a device name and a directory name, or press Return to accept the defaults. The default device is SYS$SYSDEVICE: and the default directory is ETHERNIM.

```
This installation procedure will now prompt for the device name and
directory name for the ETHERnim files.

                        NOTE!

Previous versions of ETHERnim created a separate account for ETHERnim.
This version does not create a separate account for ETHERnim.
It is recommended that the ETHERNIM account be disabled from the UAF
for security purposes.

* Device for the account [SYS$SYSDEVICE:]:
* Directory for the account [ETHERNIM]:
```

12. VMSINSTAL displays several informational messages and then concludes. These messages indicate that the required NMCC/VAX ETHERnim files have been copied off the distribution media and into the host directory that you specified. Any existing NMCC/VAX ETHERnim files in this directory are purged by the installation.

```
The interactive part of the installation is over.  There are no more
operator questions.

%ENIM-I-CRE_ENIM_START, Creating file ENIM$HOST_STARTUP.COM
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target
    directories...
        Installation of ENIM V2.2 completed at time

        VMSINSTAL procedure done at time
```

2.2 Installation Verification

This section describes how to verify the NMCC/VAX ETHERnim installation using the Installation Verification Procedure (IVP). To verify the installation, you must have DECnet-VAX running and must be using a VT125, VT240/41, or VT340 terminal, or a DECwindows workstation with ReGIS emulation enabled.

1. To begin the verification procedure, type:

```
$ @SYS$TEST:ENIM$IVP.COM
```

2. The verification procedure displays:

```
This procedure verifies the installation of NMCC/VAX ETHERnim
    V2.2 on VMS

A VT125, VT240, VT241, or VT340 is required to verify installation

Do you want to continue? (Y/N) [Y]:
```

Enter YES to continue or NO to exit.

3. Next, the IVP displays this prompt:

```
ETHERnim directory [ETHERNIM]:
```

   If you selected the default directory in the installation procedure (see Section 2.1), press Return. If you selected a different directory, enter it.

4. The procedure now displays the following prompt:

```
Location where ETHERnim directory resides [SYS$SYSDEVICE:]:
```

   If you selected the default device in the installation procedure, press Return. If you selected a different device, enter it. These responses tell the IVP where NMCC/VAX ETHERnim was installed.

5. The IVP now checks to ensure that the NMCC/VAX ETHERnim files are loaded. If any of the files are not found, a "file not found" message is displayed and the IVP stops, displaying the following message:

```
NMCC/VAX ETHERnim V2.2 installation has NOT been verified
$
```

   If the above message appears, the IVP failed because it did not find all the required NMCC/VAX ETHERnim files. You must repeat the NMCC/VAX ETHERnim installation procedure, as described in Chapter 2.

6. If the files are found, the IVP next attempts to run NMCC/VAX ETHERnim. It displays:

```
Running ETHERnim

You will see several warnings about file not found.  These
may be ignored.
When the ETHERnim introduction screen appears, Press <RETURN>.
Answer NO to the connectivity check question.
When the command menu appears, type EXIT and press <RETURN> to exit.

Press <RETURN> to continue.
```

   Pressing Return causes the NMCC/VAX ETHERnim introduction screen to appear. Press Return when the screen appears, then enter NO in response to the connectivity check question. When the NMCC/VAX ETHERnim screen appears, type EXIT then press Return.

   The IVP has just run NMCC/VAX ETHERnim and then stopped it.

7. The IVP then displays:

```
NMCC/VAX ETHERnim V2.2 installation verification successful
$
```

This indicates that the verification procedure has successfully been completed and that NMCC/VAX ETHERnim is completely and correctly installed. The $ prompt indicates the system is at the VMS command level.

If any errors occur, the following messages are displayed:

```
If any errors appeared while running ETHERnim
(i.e. - after the installation), please check
the file ENIM$SESSION.HIS in the ETHERnim
directory for details

** NMCC/VAX ETHERnim V2.2 installation was unsuccessful! **
```

The previous message indicates that the installation procedure did not install all the required files. Ensure that you have all the prerequisite hardware and software products specified in the System Software Addendum (SSA). Repeat the installation procedure, following the instructions carefully. If the problem persists, contact your Digital Equipment Corporation representative.

3 After Installing NMCC/VAX ETHERnim

After installing NMCC/VAX ETHERnim, you must perform the following tasks:

- Initialize NMCC/VAX ETHERnim
- Edit the system startup file
- Set the access protection on the NMCC/VAX ETHERnim files
- Ensure that accounts that will run NMCC/VAX ETHERnim have appropriate quotas
- Install ETHERnim on cluster nodes if appropriate

3.1 Initializing NMCC/VAX ETHERnim

To initialize NMCC/VAX ETHERnim so you can run it during the current session, type the following:

```
$ @SYS$STARTUP:ENIM$HOST_STARTUP
```

This initializes the NMCC/VAX ETHERnim logicals and installs the NMCC/VAX ETHERnim image with privileges.

3.2 Editing the System Startup File

You must edit SYS$MANAGER:SYSTARTUP_V5.COM, the system startup file, to provide for automatic startup of NMCC/VAX ETHERnim when your system is rebooted. Add the ENIM$HOST_STARTUP.COM command to the system startup file after the line that invokes the network startup command procedure. The following example shows the network startup command line followed by the startup command line for NMCC/VAX ETHERnim:

```
$ @SYS$MANAGER:STARTNET.COM
      .
      .
      .
$ @SYS$STARTUP:ENIM$HOST_STARTUP.COM
```

3.3 Setting the Access Protection on the NMCC/VAX ETHERnim Files

Another post installation task is setting the access protection you desire on the NMCC/VAX ETHERnim files. There are three approaches you can follow:

- The simplest approach is to use the default file access. By default, only the system account or users with access to system protected files can run NMCC/VAX ETHERnim.
- To allow any user to run NMCC/VAX ETHERnim while retaining more stringent control over other rights, such as the ability to delete the files, set W:RE (world read and execute) protection on the following NMCC/VAX ETHERnim files:

  ENIM$HOST_MAIN.EXE
  ENIM$MESSAGES.HLB
  ENIM$SCREENS.HLB

- To allow selected users to run NMCC/VAX ETHERnim, set the Access Control Lists (ACLs) on the three files listed in the previous item. Refer to the Release Notes for a sample procedure that sets ACL protection on the ETHERnim files. The *VMS System Manager's Manual* provides complete information about using ACLs.

3.4 Setting Process Account Quotas

Accounts that will run ETHERnim must have the quotas shown below:

Account Quota	Value
ASTLM	20
BIOLM	12
BYTLM	50,000
DIOLM	12
ENQLM	30
FILLM	30
PRCLM	5
TQELM	20

User account quotas are stored in the file SYSUAF.DAT. You use the VMS Authorize utility to verify and change user account quotas. Perform these steps to examine and modify your account quotas:

1. Set your directory to SYS$SYSTEM, then run Authorize:

   ```
   $ SET DEFAULT SYS$SYSTEM
   $ RUN AUTHORIZE
   UAF>
   ```

2. At the Authorize prompt (UAF>), use the SHOW command with an account name to check a particular account. For example:

   ```
   UAF> SHOW SMITH
   ```

3. To change a quota, use the MODIFY command, which has the following format:

   ```
   UAF> MODIFY account-name /quota-name=nnnn
   ```

   The following example changes the FILLM quota for the SMITH account.

   ```
   UAF> MODIFY SMITH /FILLM=30
   ```

4. Exit the utility with the EXIT command. After you exit from the utility, messages indicate whether or not changes were made. Once the changes have been made, you must log out and log in again for the new quotas to take effect.

   For more information on modifying account quotas, see the description of the Authorize utility in the *VMS System Manager's Manual*.

3.5 Cluster Considerations

To install NMCC/VAX ETHERnim on a cluster, perform the installation procedure described in Section 2.1 on one node, then perform the following steps on the *other* nodes in the cluster.

1. Use the Install Utility (INSTALL) to reinstall the DCLTABLES.EXE image on each node. This makes the ETHERNIM DCL command verb accessible on all the nodes in the cluster. For more information on the Install Utility, see the *VMS Install Utility Manual*.
2. Perform a license load on each node in the cluster. See Section 1.7 for more information about registering a software license with the VMS License Management Facility.

NOTE

A successful installation places the NMCC/VAX ETHERnim files in the common directory, where they can be accessed by all the nodes in the cluster. However, only one user at a time can access an NMCC/VAX ETHERnim database. Likewise, only one NMCC/VAX ETHERnim user at a time can use an Ethernet controller.

Two or more users *can* use NMCC/VAX ETHERnim simultaneously, provided that they are accessing different databases and using different Ethernet controllers. To permit simultaneous use of NMCC/VAX ETHERnim, you must assign the ENIM$DEVICE, ENIM$NETWORK, and ENIM$SEGMENT logicals appropriately, as described in the Release Notes.

4 Installing the ETHERnim Task on Remote Nodes

To perform user task level tests on remote nodes, you must install an ETHERnim task on each remote node to be tested. This task is required to gather remote node system size information.

The required remote task is installed onto the host as part of the NMCC/VAX ETHERnim installation; you must copy it to an account on each remote node.

4.1 Installing on a VMS Node

The installed task on a VMS node must be a named object with object type number 0 in the node's DECnet object database. The account that installs the task must have the SETPRV privilege. The account on which the task is installed must have NETMBX and TMPMBX privileges.

To install the task onto a remote VMS node perform the following steps:

1. Copy the following files into the top level directory of the user account on the remote node:

   ```
   ENIM$REMOTE_STARTUP.COM
   ENIM$REMOTE_MAIN.EXE
   ```

2. Log into an account on the remote node that has SETPRV privileges. Use SET PROCESS/PRIV=OPER to get OPER privileges for one session.

3. Use NCP to install ENIM$REMOTE as a network object with an object type number 0.
4. Use the NCP command SHOW KNOWN OBJECTS to display a listing and confirm that ENIM$REMOTE was installed as a network object with an object type number 0. An object named ENIM$REMOTE with a number 0 is listed.

4.2 A Sample Installation on a Remote Node

The following example shows how to install a remote task on account FIXTURE on the remote node TEST. The account password is DINNER.

The MANAGER account is assumed to have the SETPRV privilege. Note that the underscores in the ENIM$REMOTE_STARTUP.COM and ENIM$REMOTE_MAIN.EXE file names must be typed for the remote task to install properly.

```
$ COPY ENIM$REMOTE_STARTUP.COM,ENIM$REMOTE_MAIN.EXE -
    TEST"FIXTURE DINNER"::
$ SET HOST TEST
Username: MANAGER
Password:
$ SET PROCESS/PRIV=OPER
$ RUN SYS$SYSTEM:NCP
NCP> SET OBJECT ENIM$REMOTE NUMBER 0
                FILE ENIM$REMOTE_STARTUP.COM
                ACCOUNT FIXTURE
                PASSWORD DINNER
NCP> SHOW KNOWN OBJECTS
          .
          .
          .
NCP> EXIT
$
```

NOTE

Repeat the NCP SET command shown above, using DEFINE instead of SET to ensure that the network object is kept in the permanent database.

To confirm the availability of the task on the remote node, use NMCC/VAX ETHERnim to access it. You cannot access a remote node from NMCC/VAX ETHERnim unless it is entered in the ETHERnim database files. If the segment and network database files do not already exist, ETHERnim creates them and issues an informational message indicating that the files were not found. For more information about adding a node to the database files, refer to the *NMCC/VAX ETHERnim User's Guide*.

From NMCC/VAX ETHERnim on the host, use Keypad 0 to select the remote node and then run TEST NODE SYSTEM SIZER command. This command accesses the NMCC/VAX ETHERnim task on the remote node. You are prompted to log into the remote node (the FIXTURE account in the preceding example). The screen display of the information from the remote node that the program returns indicates that the command has succeeded. The task has been successfully loaded into the remote node and is available to NMCC/VAX ETHERnim. If the attempted access of the remote NMCC/VAX ETHERnim task fails for any reason, the following message appears:

```
Request to open DECnet channel failed
```

A
Sample Installation

This appendix provides a sample NMCC/VAX ETHERnim Version 2.2 installation.

```
$ @SYS$UPDATE:VMSINSTAL ENIM022 MUA0: OPTIONS N

 VAX/VMS Software Product Installation Procedure V5.0-2


It is date at time.
Enter a question mark (?) at any time for help.
%VMSINSTAL-W-DECNET, Your DECnet network is up and running.
%VMSINSTAL-W-ACTIVE, The following processes are still active:
 NMS_RBMS$BMLPRC
* Do you want to continue anyway [NO]? YES
* Are you satisfied with the backup of your system disk [YES]? YES

Please mount the first volume of the set on MUA0:.
* Are you ready?
%MOUNT-I-MOUNTED, ENIM022 MOUNTED ON _$$MUA0:  (NODE 1)
The following products will be processed:
  ENIM V2.2

 Beginning installation of ENIM V2.2 at time

%VMSINSTAL-I-RESTORE, Restoring product saveset A ...

    Release Notes Options:

 1.  Display release notes
 2.  Print release notes
 3.  Both 1 and 2
 4.  Copy release notes to SYS$HELP
 5.  Do not display, print or copy release notes

* Select option [2]: 2
* Queue name [SYS$PRINT]:
* Do you want to continue the installation? YES
```

```
 NMCC/VAX ETHERNIM V2.2  installation beginning...

        Product:      ETHERNIM
        Producer:     DEC
        Version:      2.2
        Release Date: 05-JAN-1990

* Does this product have an authorization key registered and loaded? YES

This installation procedure will now prompt for the device name and directory
name for the ETHERnim files.

   NOTE!

Previous versions of ETHERnim created a separate account for ETHERnim.  This
version does not create a separate account for ETHERnim.  It is recommended
that the ETHERNIM account be disabled from the UAF for security purposes.

* Device for the files [SYS$SYSDEVICE:]:
* Directory for the files [ETHERNIM]:
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
   SYS$SYSDEVICE:[ETHERNIM].
%CREATE-I-EXISTS, SYS$SYSDEVICE:[ETHERNIM] already exists

The interactive part of the installation is over.  There are no more
operator questions.

%ENIM-I-CRE_ENIM_START, Creating file ENIM$HOST_STARTUP.COM
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
 Installation of ENIM V2.2 completed at time

 VMSINSTAL procedure done at time
```

B

Files and Directories Installed on Your System

The following files will be placed in the ETHERnim directory specified by the user during the installation of ETHERnim. If the defaults are used, the following files are placed in SYS$SYSDEVICE:[ETHERNIM]

ENIM$HOST_MAIN.EXE
ENIM$MESSAGES.HLB
ENIM$SCREENS.HLB
ENIM$SESSION_STARTUP.COM
ENIM$REMOTE_MAIN.EXE
ENIM$REMOTE_STARTUP.COM
ENIM$ACL.COM
ENIM$DTR_DEFINITIONS.COM
ENIM$DTR_EXAMPLE.COM

The following file is placed in SYS$SYSROOT:[SYS$STARTUP]

ENIM$HOST_STARTUP.COM

The following file is placed in the SYS$SYSROOT:[SYSTEST]

ENIM$IVP.COM