Updating the DECagent 90 Microcode (OpenVMS VAX)

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This manual explains how to install the DECagent 90 microcode and perform the update.

Supersession/Update Information: This is a revised manual.

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Updating the DECagent 90

This manual explains how to install the DECagent 90 microcode onto your OpenVMS VAX load host. It also explains how to update the microcode in the DECagent 90 module from Version 1.0 to the latest available version.

If your DECagent 90 contains microcode Version 1.1 or higher, refer to *Using DECndu Plus* documentation to install the DECagent 90 microcode.

Intended Audience

This manual is for the system or network manager responsible for updating network devices using a VAX system running the OpenVMS operating system.

Documentation

The update documentation contains the following items:

- *Updating the DECagent 90 Microcode (OpenVMS VAX)* manual (this manual)
- DECagent 90 release notes

Structure of This Manual

This manual contains the following five sections:

1. Lists the steps to take before installing the DECagent 90 microcode. page 2
2. Explains how to install the DECagent 90 microcode onto the load host using **VMSINSTAL**. page 2
3. Lists the steps to take before updating the DECagent 90 microcode. page 4
4. Explains how to update the DECagent 90 microcode. page 8
5. Lists the DECagent 90 update files you receive with the DECagent 90 microcode update. page 9

Installation Time

The installation time is 10-20 minutes.

1 Preparing for Installation

Before installing the DECagent 90 microcode, do the following:

1. Determine which systems are designated as load hosts.
2. Ensure that you are running OpenVMS VAX Version 5.3 or higher.
3. Ensure that you have system manager's privileges.
4. Ensure that you have the OpenVMS VAX Required Saveset and the Network Support Saveset classes installed on the system.
5. Verify that the load host has at least 700 blocks of free disk space.
6. Back up the system disk.
7. Record the DECagent 90 hardware address.

2 Installing the DECagent 90 Microcode

To install the DECagent 90 microcode onto the OpenVMS VAX load host, do the following:

NOTE

The examples in this installation manual use *MUA0* as your load device. Substitute the actual load device as appropriate to your system configuration**.**

NOTE

In this manual where *nn* appears in the file name, replace with the current microcode version number**.**

1. Insert the DECagent 90 update distribution media into the load device. Ensure that the drive is on-line.
2. Start the installation procedure by typing the following and then press Return:

   ```
   @SYS$UPDATE:VMSINSTAL DENMA0nn MUA0:
   ```

3. Respond to the VMSINSTAL prompts. Example 1 contains the installation procedure.

Example 1: Installing the DECagent 90 Microcode

```
$ @SYS$UPDATE:VMSINSTAL DENMA0nn MUA0: Return

VAX/VMS Software Product Installation Procedure
V5.3-2
It is 4-MAR-1993.
Enter a question mark (?) at any time for help.

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

The following products will be processed:
DENMA Vn.n

Beginning installation of DENMA Vn.n at 13:56.
%VMSINSTAL-I-RESTORE, Restoring product saveset
A...
%VMSINSTAL-I-RELMOVED, Product's release notes
have been moved to SYS$HELP.

    Beginning installation of DENMA Vn.n

* Do you want to run the IVP after the instal-
lation [YES]? Return

* Do you want to purge files replaced by this
installation [YES]? Return

All the questions regarding the installation
have now been asked. The installation will con-
tinue for about another 2-4 minutes.

DENMA Vn.n Installation is complete.

The DENMA Vn.n kit includes:

MOM$LOAD:DENMA0nn.SYS             [new]
MOM$LOAD:DENMA_LOAD.SYS           [new]
SYS$HELP:DENMA0nn.RELEASE_NOTES   [new]
SYS$TEST:DENMA$IVP.COM            [new]

Please be sure to read the product Release
Notes and the Software Installation manual for
proper installation of this product.

The installation verification procedure for
this product is DENMA$IVP.COM and is located in
the SYS$TEST directory. It may be executed by
typing the following command:
        $ @SYS$TEST:DENMA$IVP.COM

%VMSINSTAL-I-MOVEFILES, Files will now be moved
```

```
to their target directories...

Beginning DENMA Vn.n Installation Verification
Procedure

Successfully located DENMA0nn.SYS
Successfully located DENMA_LOAD.SYS
Successfully located DENMA0nn.RELEASE_NOTES in
SYS$HELP

DENMA Vn.n Installation Verification Procedure
completed successfully.

Installation of DENMA Vn.n completed at 13:58

VMSINSTAL procedure done at 13:58
$
```

---

3 Preparing to Update the DECagent 90 Microcode

This section explains how to set up the VAX host. It also explains how to enable the DECagent 90 Console Command Interpreter (CCI).

You perform the downline load and the update procedures using an OpenVMS VAX load host and the DECagent 90 CCI through two separate terminals.

NOTE

To update the DECagent 90 microcode you must be on a quiet network. Perform the update when there is little or no traffic on the network.

The examples in the procedures use *qna-0* for the Ethernet circuit. Substitute as appropriate to your configuration.

Before performing the update procedure, set up the VAX host by doing the following 13 steps:

Use the terminal connected to the OpenVMS VAX load host to perform steps 1 to 10.

1. Verify that the VAX host is set up to allow the downline load.

   Start NCP by typing the following and then press Return:

   ```
   mcr ncp
   ```

2. Define the node address by typing the following. Substitute *55.001* and *agent* to an unused node name and address or as appropriate to your system configuration and then press Return:

   ```
   set node 55.001 name agent
   ```

3. Set the hardware address of the node agent by typing the following (substitute *08-00-2b-00-00-00* with the DECagent 90's hardware address) and then press Return:

   ```
   set node agent hardware address
   08-00-2b-00-00-00
   ```

4. Check the circuit name available on the system by typing the following and then press Return:

   ```
   show known circuits
   ```

5. Show the circuit characteristics of the circuit that you will use to downline load the microcode by typing the following and then press Return:

   ```
   show cir qna-0 char
   ```

6. Ensure that the circuit service is enabled. If the circuit service is disabled, set the circuit state to off, enable the circuit service, then set the circuit service to **ON** again as shown in the following example (do not type NCP>):

   ```
   NCP> SET CIR QNA-0 STATE OFF Return
   NCP> SET CIR QNA-0 SERVICE ENABLED Return
   NCP> SET CIR QNA-0 STATE ON Return
   NCP>
   ```

7. Set the service circuit that will be used to downline load the microcode by typing the following and then press Return:

   ```
   SET NODE AGENT SERVICE CIRCUIT QNA-0
   ```

8. Set the filename of the new DECagent 90 microcode to be downline loaded by typing the following and then press Return:

```
SET NODE AGENT LOAD FILE
MOM$LOAD:DENMA0nn.SYS
```

9. Verify that the hardware address, circuit service, and load file were entered correctly by typing the following and then press Return:

```
SHOW NODE AGENT CHARACTERISTICS
```

10. If any of the parameters are incorrect, reenter them using the NCP SET commands starting at step 2.

Use the terminal connected to the DECagent 90 console to perform steps 11 to 13.

11. Enable the DECagent 90 Console Command Interpreter (CCI) by doing the following:

    a. Connect a terminal to the dB-25 connector located on the front panel of the DECagent 90 module.

    b. Set the terminal to 9600 baud, 8 bits, no parity, 1 bit stop.

    c. Turn off the power to the DECagent 90 module. If the DECagent 90 module is in the DEChub, remove it and then place it back into the slot.

    d. Turn on the power to the DECagent 90 and press Ctrl-I within 10 seconds or before the second LED comes on (when self-test ends).

NOTE

If you did not press **Ctrl-I** before self-test ended, repeat steps c. and d.

12. At the CCI prompt, type the following and then press Return:

```
load denma_load.sys
```

Example 2 shows the file load to the DECagent 90 using the DECagent 90 CCI.

Example 2: Loading the Microcode Using the DECagent 90 CCI

```
CCI> load denma_load.sys Return

DENMA -901- Initializing DECagent 90
DENMA -953- Attempting to locate load host
[IS08802]
DENMA -953- Attempting to locate load host
[ETHERNET]
DENMA -955- Host AA-00-04-00-E3-DF located
[ETHERNET]
DENMA -956- Requesting load from host
AA-00-04-00-E3-DF
DENMA -903- Loading from host AA-00-04-00-
E3-DF
DENMA -904- Image verification in progress.
DENMA -905- Image load completed.
%CCI-I-CRCCHK, attempting CRC check on
image loaded
CCI>
```

13. Start the image loader by typing the following at the DECagent 90 CCI prompt and then press Return:

    ```
    start 200000
    ```

    NOTE

    If the image loader is operating properly, the first three LEDs are on and the fourth LED (closest to the console port) flashes.

4 Updating the DECagent 90 Microcode

You perform the update from the OpenVMS VAX load host and the DECagent 90 console. To update the DECagent 90 with the microcode do the following:

Use the terminal connected to the OpenVMS VAX load host to perform steps 1 and 2.

1. Start the update by typing the following at the NCP prompt and then press Return:

   ```
   load node agent
   ```

If the image loads successfully, the DECagent 90 unit resets and starts the image file. The LEDs sequence during the reset. After the reset is completed, the first three LEDs are on and the fourth LED is off.

NOTE

If a failure occurs during loading, use the TRIGGER command by typing *trigger node agent* and then press Return**.**

2. Exit NCP by typing **EXIT** and then press Return.

Use the terminal connected to the DECagent 90 console to perform steps 3 to 5.

3. From the DECagent 90 CCI prompt, press Return until you get the password (#) prompt.
4. Enter your password at the DECagent 90 CCI prompt.
5. Verify the update by checking the version number located at the top right corner of the screen display.

NOTE

If the version number is not correct, perform steps 11, 12, and 13 in Section 3, then perform steps 1 to 5 in Section 4.

5 DECagent 90 Update Files

Table 1 lists the DECagent 90 image files and text file that you receive with the DECagent 90 microcode update.

Table 1: DECagent 90 Update Files

File Name	Description
DENMA0*nn*.SYS	DECagent 90 image file in the MOM$LOAD directory
DENMA_LOAD.SYS	DECagent 90 firmware load image file in the MOM$LOAD directory.
DENMA0*nn*.RELEASE_NOTES	DECagent 90 release notes in the SYS$HELP directory

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