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Ethernet Communications Server DECnet Router

Release Notes

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Release Notes

Order No. AV-Y300B-TK

September 1984

The *Release Notes* contain update information and other miscellaneous items not included in the DECnet Router Server manual set. Also included are tips and restrictions **and instructions** on how to report problems.

SUPERSESSION/UPDATE INFORMATION: This is a new manual.

SOFTWARE VERSION: V1.1

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AV-Y300B-TK
First Printing, September 1984

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1.0 Release Description

This release is for DECnet Router Server software Version 1.1 which runs on Digital's Ethernet Communications Server (DECSA). It supports Phase IV DECnet, Ethernet Communications, the DEUNA device controller, and up to 16 synchronous or 32 asynchronous point-to-point connections to Phase III or Phase IV DECnet nodes.

1.1 Prerequisites

Your DECnet Router Server requires the following:

- An Ethernet Communications Server with the desired number of M3100, M3101, and M3102 line cards (LCs).
- An Ethernet cable with RSX or VMS hosts running DECnet Phase IV.
- BC17C, BC17D, BC17E, or BC22E shielded cables.
- Modems to connect the point-to-point lines to existing DEC communications devices. (See Section 1.2.)

1.2 General Product Notes for V1.1

The DECnet Router Server can be installed on VMS hosts, software versions V3.6 or thereafter, and on RSX-11M/M-PLUS hosts, software versions 4.1/2.1 or thereafter. The hosts must be running DECnet Phase IV. If your host system has an older system or DECnet version, you must update it before installing the server.

Synchronous LC lines require cables with shielded clock lines (BC17C, BC17D or BC17E cables). If you do not use shielded cables, numerous problems may occur due to crosstalk on these clock lines.

NOTE

> Problems have been encountered using 15-foot V.35 cables with BELL Digital Dataphone Services (DDS) 56K modems. Use 50-foot cables with these modems.

All line cards that you intend to use must be in place when the system is loaded. You can hotswap line cards (that is, replace or remove them while the server is running); however, the server will not recognize any line cards in slots that were empty during initialization.

To optimize performance, gaps should not be left between line cards. That is, line cards should be installed consecutively starting with slot 1 and up. Also, all line cards not intended for use should be unplugged from the server.

A modem or null modem must be used for any high speed line between the DECSA line cards and other DEC communications devices. No modem is required on RS232 lines between two DECnet Router Servers.

If you are running synchronous lines to DMR11 devices, make sure that the DMR is running in DMR mode and not DMC compatible mode. Timeout errors might result if the DMR11 runs in DMC compatible mode.

The Ethernet Communications Server can contain up to two line card controllers (called Protocol Assist Modules or PAMs), each supporting a maximum of 8 synchronous or 16 asynchronous lines. The maximum throughput supported by each PAM is 500,000 bits per second. Although it is possible to run the server with two PAMs, each at its maximum throughput, the total maximum throughput supported by the DECnet Router Server is 500,000 bits per second.

2.0 Installation and Loading Notes

To load the DECnet Router Server, service must be enabled on the loading host's UNA circuit. To do this on VMS host systems, you must turn the circuit off, enable service, and set the circuit back on. Consult your documentation if you have any questions.

If you want to see event information that is generated by the server, you must enable the logging console and/or the logging monitor on the host system. If you do not receive events on the host, enable the monitor/console event logging.

3.0 Configuration Notes

Read Chapters 1, 2, and 4 of the *DECnet Router Software Installation Guide* before loading the server. Read these chapters carefully to avoid missing steps during installation. Read Chapter 3 if you need to design or reconfigure your network. That chapter explains how to include Ethernet and area routing support.

Change the parameters in the server's configuration files to match the requirements of your network. Try to get the parameters to the closest values you need. Large differences will waste the resources of your server. Refer to the *DECnet Router Software Installation Guide* if you do not understand the meaning of a parameter. Make sure that the configuration files you edit are readable from the PLUTO account on the loading host. If they are not world readable, they must be owned by the PLUTO account and must be owner readable.

Make sure that the MAXIMUM BROADCAST ROUTERS parameter of the router configuration file contains a value large enough to include all routing nodes on the Ethernet. If it is not large enough, there is a problem with DECnet-VAX which will cause some nodes to appear to be reachable although communications will not be allowed to those nodes.

If you reinstall the DECnet Router on the host, configuration files already in place will be superseded by the default configuration files supplied in the software distribution kit. If you have already edited the configuration files and then performed another installation, you must reedit the configuration files.

The commands in the configuration files have the same format as network management commands, but are not accepted by network management. Configuration commands are accepted and interpreted by the initialization tasks.

4.0 Network Management Notes

Only one network management connection can be handled by the server at a time. If a second remote request is issued, the second user will receive an "object too busy" or "network resources" message.

You can loop from the server over any circuit. You can also loop to the server's DEUNA on the Ethernet. However, the server cannot service incoming loop circuit requests on the LC circuits and cannot answer multicast loop requests on the Ethernet.

When performing loop node tests on the server's LC circuits (such as the type used in the installation checkout command procedures), the return path of the message from the adjacent node must be via the LC circuit. (The adjacent node may also be connected to the Ethernet, in which case the loop test message could return to the server via the Ethernet. The test will fail if the message returns via the Ethernet.) To ensure that the message returns over the LC circuit, make the cost of returning to the server lower on the LC circuit than on the Ethernet circuit.

5.0 Problem Solving Tool Notes

The remote console facility (RCF) must be run from an RSX-11M V4.1 or RSX-11M-PLUS V2.1 host (or a later version), with DECnet-RSX V4.0/V2.0, or on a VMS V3.6 host (or a later version). (Note that on DECnet-RSX systems, RCF is also known as the Console Carrier Requester or CCR. RCF will not work on previous releases. The host must be on the same Ethernet. Also, we have observed occasional problems in-house when using RCF. The Router may halt or crash (and up-line dump) when the console carrier microcode is loaded. This problem will be fixed in a future release. If you need to use the console carrier to force a crash, see Chapter 3 of the *DECnet Router Software Management Guide.*

6.0 How to Report a Problem

When completing a Software Performance Report (SPR), describe one problem at a time. This simplifies record keeping and facilitates a quick response.

Problems are often difficult to reproduce. Therefore, define as precisely and simply as possible the state of the server and network when the problem occurred. Illustrate a general problem with one or more examples. When an SPR contains concise information about a problem, it is easier to reproduce the problem and, therefore, to correct the problem.

In addition, please ensure that questions are direct and simply stated so that they may be answered appropriately.

When reporting problems, supply as much of the following information as possible:

- A machine-readable medium containing a copy of the crash dump file and the server's configuration files.
- Any pertinent console output from the server's loading host.
- Any information requested for submission of problem reports relative to the host operating system.
- The modem or type of local connection being used between the server and the nodes connected by its point-to-point lines.

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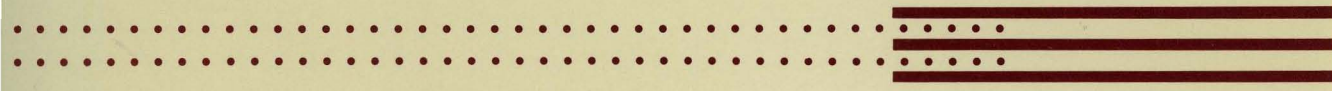

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