

# **HP Availability Manager Version 2.3-1**

## **Release Notes**

The following notes address late-breaking information and known problems for the HP Availability Manager Versions 2.3 and 2.3-1. These notes fall into the following categories:

- Installation note
- Problems corrected
- New and changed features
- Operation notes
- Display notes

## **1 Installation Note**

This note pertains to the installation of Availability Manager Version 2.3-1.

### **1.1 Uninstall Prior Versions Before Installing the New Kit**

Before you install the kit, you need to uninstall any previous versions of the software. This is explained in the Version 2.3-1 installation instructions.

Prior to installation, you might want to make a copy of your AVAILMAN.INI file as a reminder of the names of the groups you usually monitor. Also, delete any desktop shortcuts for previous versions of the Availability Manager because they will be invalid with the new version.

## **2 Problems Corrected**

The following sections discuss problems corrected in specified versions of the Availability Manager.

### **2.1 Problems Corrected in Version 2.3-1**

The following sections discuss key problems that have been corrected since the release of the Availability Manager Version 2.3.

#### **2.1.1 Consistent Sorting of Tables in Display Panes**

You can now sort by fields displayed in the Node Pane of the main Application Window and in the Single Disk Summary Page. To sort by a field, click its column header. To reverse the sort order of that field, click its column header again. This ability is now consistent with tables in other display panes.

#### **2.1.2 Error Message in Port Data Display on Cluster Members Pane**

Prior to Version 7.3-2 of OpenVMS, clicking the handle in front of Ports in the Cluster Members pane sometimes resulted in the display of the following error message instead of the port information:

```
?? Error retrieving Circuit data, error code=0x7 (No room in response buffer)
```

This was a problem related to gathering circuit data on OpenVMS that has been corrected in Version 7.3-2.

### 2.1.3 Cluster Members Pane Fixes

Various fixes to the Cluster Members pane have been made to reflect changes made in the SCACP utility:

- In the LAN Virtual Circuit Summary section of the LAN Channel Summary Data display, the "Max PktSiz" and "ECS Priority" columns of the LAN display are reversed.
- In the LAN Path (Channel) Summary section of the LAN Channel Summary Data, the "Priority Chan" column has been renamed to "Priority Cur."

### 2.1.4 Memory for Availability Manager on OpenVMS Alpha Systems Incorrectly Calculated

In the Availability Manager Version 2.3, the memory calculation used during startup was smaller than required for optimal Java performance. This problem has been corrected.

## 2.2 Problems Corrected in Version 2.3

The following sections discuss key problems that have been corrected since the release of the Availability Manager Version 2.2-1.

### 2.2.1 Corrected Host Node Page/Swap File Display

OpenVMS Version 7.3-1 and higher do not have a page or swap file Reserved field. Availability Manager displays have been updated to reflect this change.

### 2.2.2 Wait States on Single Process Are Now Explained

In previous versions of the Availability Manager, explanations of wait states were omitted from the description of the Single Process Wait States page. Wait state calculations are now explained in Chapter 3 of the *Availability Manager User's Guide* and in tooltips.

### 2.2.3 Out-of-Memory Problem

In previous versions, a memory leak caused the graphical user interface eventually to become unresponsive. This problem has been corrected.

### 2.2.4 Data Collector Errors

In previous versions, the Data Collector would, on rare occasions, cause a systemwide failure due to divide-by-zero and range-check errors. These problems have been corrected.

### 2.2.5 Most Events Trigger Color Scheme

Any event that is not classified as an informational message causes a node to display in red, as described in the "Getting Started" chapter of the *Availability Manager User's Guide*.

### 2.2.6 Problem with Seasonal Time Changes Corrected

Previous versions of the Availability Manager used a version of the Java runtime environment that had problems with seasonal time changes. Availability Manager Version 2.3 uses a version of Java runtime environment that has corrected this problem.

For OpenVMS systems, make sure that the time zone differential logical name `SYS$TIMEZONE_DIFFERENTIAL` is defined correctly.

### 2.2.7 Additional Problems Corrected

The following problems have also been corrected:

- Tooltips now show up in node displays.
- Single disk display windows now display consistently.
- Various font size problems have been corrected on lock and cluster pages.

## 3 New and Changed Features

The following sections discuss new and changed features introduced in specified versions of the Availability Manager.

### 3.1 Features in Version 2.3-1

The following sections describe features that are introduced or changed in Availability Manager Version 2.3-1.

#### 3.1.1 New Node-Specific Data Collector Logicals File

This version introduces a way to specify node-specific settings found in AMDS\$LOGICALS.COM for a cluster environment. For example, this allows you to set the AMDS\$DEVICE logical to a node's specific network adapter.

The node-specific settings are in AMDS\$LOGICALS\_<node-name>.COM, where *node-name* is the name of the OpenVMS node in the cluster. To create this file, copy AMDS\$LOGICALS.TEMPLATE to AMDS\$LOGICALS\_<node-name>.COM, and edit the file to configure node-specific settings.

When SYS\$STARTUP:AMDS\$STARTUP executes, it searches for and executes the following files, if they exist, in this order:

1. The AMDS\$LOGICALS.COM file
2. The AMDS\$LOGICALS\_<node-name>.COM

Either or both files can be present; however, if neither file is present, SYS\$STARTUP:AMDS\$STARTUP outputs an error message and exits.

#### 3.1.2 Additional Fields in Disk Volume Summary Display

The following new fields are displayed for all versions of OpenVMS for which the Availability Manager collects data:

Field	Description
Used	Number of blocks used on the disk.
Physical Size	Total number of blocks available on the disk device. This is the "Total blocks" field of the \$ SHOW DEVICE/FULL display.

The following new fields are displayed for OpenVMS Alpha Version 7.3-2 and later:

Field	Description
Volume Size	Current number of blocks available for file allocation. This is the "Logical Volume Size" field of the \$ SHOW DEVICE/FULL display. (See \$ SET VOLUME/SIZE for more information.)

Field	Description
Volume Limit	Maximum number of blocks the volume can reach using Dynamic Volume Expansion. This is the "Expansion Size Limit" of \$ SHOW DEVICE/FULL display. (See \$ SET VOLUME/LIMIT for more information.)

If the Availability Manager detects that a disk volume size has increased, an VLSZCH event is signalled:

```

AFFS55 Volume size of device $8$DKA200 (OPAL-X9U6) has changed
^           ^           ^
Node         Device      Volume
name         name        name

```

Documentation in the *Availability Manager User's Guide* will be updated with these fields in a future release.

### 3.1.3 OpenVMS Version 7.3-2 Support

The Availability Manager now supports data collection on OpenVMS Version 7.3-2 nodes.

## 3.2 Features in Version 2.3

The following sections describe features that are introduced or changed in Availability Manager Version 2.3.

### 3.2.1 DECamds Parity

The Availability Manager has now reached functional parity with DECamds; this means that all features supported by DECamds are now supported by the Availability Manager. The Availability Manager also contains many additional enhancements and new features.

### 3.2.2 Memory Utilization

Memory utilization has been improved in the Data Analyzer when the Availability Manager loads program libraries.

### 3.2.3 Performance

There has been a moderate improvement in overall performance of the Data Analyzer.

### 3.2.4 Window Turn Rate

The window turn rate for disks is now supported on the OpenVMS I/O Summary page.

### 3.2.5 NOPROC Event Support; Watch Process Customization Page

The NOPROC event has been implemented in this release. You can now monitor up to eight processes on a node using the new Watch Process Customization page. If you enter a process name, the Availability Manager signals a NOPROC event if a process disappears and displays the following message in the Events pane:

```
NOPROC node-name cannot find process named: process-name
```

If the process then reappears, the following message is displayed in the Events pane:

```
PRCFND node-name has recently discovered process process-name
```

This feature requires the latest version of the Availability Manager Version 2.3-1 Data Collector on the OpenVMS node being monitored.

### 3.2.6 LOVOTE and LOVLSP Events

LOVOTE and LOVLSP events have been implemented. LOVOTE and LOVLSP are explained in Appendix B of the *Availability Manager User's Guide*.

### 3.2.7 Lock Log

In previous versions, no way existed to see lock contention history. This made lock contention resolution difficult. To facilitate lock contention investigation, locks under contention are written out to a log file called AvailManLock.Log.

### 3.2.8 LAN Adapters Renamed to LAN Devices

In cluster displays, the term “LAN adapters” has been renamed to “LAN devices” to be consistent with other OpenVMS utilities such as SCACP.

### 3.2.9 CPU Process State Summary Display

This new display allows you to easily monitor process states on the system on the OpenVMS CPU Modes Summary and Process States page. Refer to Chapter 3 of the *Availability Manager User's Guide*.

### 3.2.10 How to Print a Screen

Documentation has been added to explain how to print a screen. Refer to the Getting Started chapter in the *Availability Manager User's Guide*.

### 3.2.11 Event Counts and List of Events

A count of events has been added to the Node Pane of the main Application Window. Also, if you hold the cursor over a node name or the number of events, the Availability Manager displays a list of the events associated with the number of events.

## 4 Operation Notes

The following sections contain notes pertaining to the operation of the Availability Manager Version 2.3-1.

### 4.1 SYS\$AMCONFIG.DAT Must Have Correct File Format

The SYS\$AMCONFIG.DAT file must be in a variable-length carriage-return-carriage-control format. If you create the file as a stream or stream-variant file, the OpenVMS boot code might not recognize the file contents correctly.

To confirm that you have the correct format, enter the following DCL command:

```
$ DIRECTORY/FULL SYS$AMCONFIG.DAT
```

A correctly-formatted file will include the following two lines:

```
.  
.
Record format:      Stream, maximum 0 bytes, longest 0 bytes
Record attributes:  Carriage return carriage control
.  
.
```

You can also enter the following command:

```
$ DUMP SYS$AMCONFIG.DAT
```

Correct output from this command will show the 'B' in "BOOTLOAD=TRUE" as the third character in the first disk block; for example:

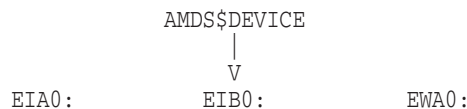
```
20455552 543D4441 4F4C544F 4F420034 4.BOOTLOAD=TRUE 000000
64616F4C 203B2020 20202020 20202020 ; Load 000010
6F6F6220 74612052 45564952 444D5220 RMDRIVER at boo 000020
00000000 00000000 FFFF656D 69742074 t time..... 000030
00000000 00000000 00000000 00000000 ..... 000040
.
.
.
```

## 4.2 Logical LAN Support

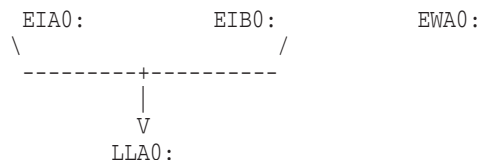
Logical LAN support is new in OpenVMS Version 7.3-2. Refer to the New Features and Documentation Overview for OpenVMS Version 7.3-2 for more information about logical LAN support.

The Availability Manager is compatible with this new feature. You can specify a logical LAN device in the logical AMDS\$DEVICE. However, if the current device name that the logical AMDS\$DEVICE specifies is part of a logical LAN failover set, the device name needs to be changed. This is because specifying a physical device in a failover set is illegal and will result in an error when executing \$@SYS\$STARTUP:AMDS\$STARTUP START. For a device name, you can specify either the logical LAN device name of the failover set or another network device.

The following figure shows a possible OpenVMS pre-Version 7.3-2 configuration. The AMDS\$DEVICE logical points to EIB0:.



If, after installing OpenVMS Version 7.3-2, you create a logical LAN failover set with EIA0: and EIB0:, the AMDS\$DEVICE logical can no longer specify EIB0:, because EIB0: is now in a failover set. In this case, you must set the AMDS\$DEVICE logical to either LLA0:, which is the logical LAN device, or to EWA0:.



## 4.3 Administrator Account Required

On Windows 2000 and Windows XP platforms, the Data Analyzer must be run from an account in the Administrator group. This restriction will be removed in the next major release of Availability Manager.

## 4.4 Problem Displaying Large Numbers of Processes or Disks

Very busy networks can sometimes interfere with the transfer of data between the Data Analyzer and the Data Collector. This problem is noticeable when you display large numbers of disks or processes. The number of disks or processes might change temporarily because of a lost data message. This problem will be corrected in a future release.

## 4.5 Event Reporting Problems

The following list contains known event-reporting problems:

- Unimplemented threshold event: LOSTVC
- Event reporting irregularities:
  - Some posted events may not be canceled promptly when the condition goes away.
  - LOVOTE and LOVLSP events are posted for every node in the cluster rather than once per cluster.

## 4.6 Out-of-Memory Problems on Long Runs

If a session runs for many days, and the Data Analyzer is collecting data on many nodes, the Data Analyzer might run out of virtual memory (object heap). (See the Availability Manager installation instructions for Windows or OpenVMS for details on how to modify the heap size.)

On Windows systems, the Data Analyzer does not report the problem. On OpenVMS systems, the Data Analyzer displays an “OutOfMemoryException” error in the window in which the Data Analyzer was started. On either system, one or more parts of the display might stop updating. The only solution is to restart the Data Analyzer.

# 5 Display Notes

The following sections contain display notes pertaining to the Data Analyzer.

## 5.1 Position of Main Application Window

The Availability Manager saves and restores the position, size, and dimensions of the main Application window when you restart the application.

## 5.2 Problems Using the Data Analyzer on All Platforms

The following sections contain notes about the display of the Data Analyzer on Windows and OpenVMS platforms.

### 5.2.1 What to Do If a Node Is Displayed Twice

A node can be displayed twice in the Node pane when the Data Collector (RMDRIVER) is started before the network transports are started. To avoid this problem, always start your network transports (DECnet) before starting the Availability Manager Data Collector.

### 5.2.2 Events Sometimes Displayed After Background Collection Stops

The Data Analyzer sometimes displays events after users customize their systems to stop collecting a particular kind of data. This is most likely to occur when the Data Analyzer is monitoring many nodes. Under these conditions, a data handler sometimes clears events before all pending packets have been processed. The events based on the data in these packets are displayed even though users have requested that this data not be collected.

### 5.2.3 Truncated LAN Channel Summary Display

The LAN Channel Summary display might be disabled for some OpenVMS nodes if there are more than seven channels for that virtual circuit. This problem results from a restriction in the OpenVMS Version 7.3 PEDRIVER. For this condition, the following error message is displayed:

```
Error retrieving ChSumLAN data, error code=0x85 (Continuation data
disallowed for request)
```

This problem has been corrected in the OpenVMS Version 7.3-1 PEDRIVER.

## 5.3 Problems Using the Data Analyzer on OpenVMS Systems

The following sections contain notes about the display of the Data Analyzer on OpenVMS platforms.

### 5.3.1 Exiting Field on Data Collection Customization Page

While using the OpenVMS Data Collection Customization page on OpenVMS, if you change a data collection interval and press **Enter** to exit the field, the value is not entered as expected. You must use the mouse to move the cursor out of the field.

### 5.3.2 Long Runs Exhaust XLIB Resource ID

The version of Motif currently shipping with OpenVMS is based on X11R5. That release of X11 uses a resource ID allocation scheme that works poorly with the Motif support in Java for OpenVMS. As a result, long-running Availability Manager sessions might stop updating the display at a time that depends on the speed of the OpenVMS machine. For example, a session running on a dual-processor 275 MHz system reported the following after 14 hours:

```
Xlib: resource ID allocation space exhausted!
```

On faster machines, this message was reported after only 8 hours. This problem is expected to be corrected in a later version of DECwindows Motif.