

VSI OpenVMS

VSI Availability Manager Version 3.2-1 Release Notes

Document Number: DO-DAMRNS-01A

Publication Date: April 2021

This document describes features and release notes for VSI Availability Manager Version 3.2-1.

VSI Availability Manager Version 3.2-1 Release Notes



VMS Software

Copyright © 2022 VMS Software, Inc. (VSI), Burlington, Massachusetts, USA

Legal Notice

Confidential computer software. Valid license from VSI required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

The information contained herein is subject to change without notice. The only warranties for VSI products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. VSI shall not be liable for technical or editorial errors or omissions contained herein.

HPE, HPE Integrity, HPE Alpha, and HPE Proliant are trademarks or registered trademarks of Hewlett Packard Enterprise.

Intel, Itanium and IA-64 are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries.

Microsoft, Windows, Windows-NT and Microsoft XP are U.S. registered trademarks of Microsoft Corporation. Microsoft Vista is either a registered trademark or trademark of Microsoft Corporation in the United States and/or other countries.

The VSI OpenVMS documentation set is available on DVD.

Preface	v
1. Intended Audience	v
2. Document Structure	v
3. VSI Availability Manager V3.2-1 Documentation	v
Release Notes	1
1. Prerequisites	1
2. Release Considerations	1
3. New Features and Improvements	1
3.1. New Features for Availability Manager	1
3.1.1. Configuration File Updates	2
3.1.2. Allow for Per-User Customizations and Log File Storage	2
3.2. New Features for Availability Manager on Windows	2
3.2.1. 64-bit Microsoft Windows 10 Support	2
3.2.2. Optional Installation of the Windows Protocol Driver	3
3.2.3. Data Server Configuration Utility Added for Data Server Customization	3
3.2.4. Windows Driver Queues for Network Packets Enhances Data Analyzer/Data Server Performance	3
3.2.5. OpenVMS Driver Queues for Network Packets Enhances Data Analyzer/Data Server Performance	4
3.2.6. Set Java Heap Values for Data Analyzer and Data Server	4
4. Fixed Issues	4
4.1. Support for OpenVMS 2 TB Disk Volumes	4
4.2. Support for Monitoring LD Disk Volumes	4
4.3. Fixed issues from the V3.2 Data Collector kit	5
4.3.1. System crash - INVTQEFMT, Invalid time queue entry format	5
4.3.2. Setting SYSGEN Parameter LAN_FLAGS is no longer necessary	5
4.3.3. Single Disk Pane Operation Rate and Queue Length values have been corrected	5
5. Operation Notes and Restrictions	5
5.1. Starting the Data Server Might Trigger Windows Security Alert	5
5.2. Running Reflective Memory by GE Fanuc and Availability Manager	5
6. Display Notes	6
6.1. Events Sometimes Displayed After Background Collection Stops	6

Preface

1. Intended Audience

This document is intended for all users of VSI Availability Manager V3.2-1. Read this document, as well as the *VSI Availability Manager Version 3.2-1 Installation Instructions*, before you install this product on your system.

2. Document Structure

This document contains the following sections:

- Section 1: Prerequisites
- Section 2: Release Considerations
- Section 3: New Features and Improvements
- Section 4: Fixed Issues
- Section 5: Operation Notes and Restrictions
- Section 6: Display Notes

3. VSI Availability Manager V3.2-1 Documentation

The complete set of the VSI Availability Manager V3.2-1 documentation is available on the VSI OpenVMS website at [. It includes the following documents:](#)

- *VSI Availability Manager Version 3.2-1 Release Notes*
- *VSI Availability Manager Version 3.2-1 Installation Instructions*
- *VSI Availability Manager User's Guide*
- *VSI Availability Manager Data Server Guide for Microsoft Windows*

Release Notes

This document describes late-breaking information and known issues for VSI Availability Manager V3.2-1.

1. Prerequisites

Please note the following prerequisites for VSI Availability Manager V3.2-1:

- You can install and run VSI Availability Manager V3.2-1 on the following operating systems:
 - VSI OpenVMS I64 Version 8.4-1H1 or higher
 - VSI OpenVMS Alpha Version 8.4-2L1 or higher
 - 64-bit Microsoft Windows 10
- On OpenVMS systems, the Availability Manager Data Analyzer and Data Server components require that the installation disk is an ODS-5 disk.
- Availability Manager Data Collector release information
 - The Availability Manager Data Collector V3.2 kit supersedes all data collectors installed from the AVAIL_MAN_BASE kits. The AVAIL_MAN_BASE kit is installed as part of an OpenVMS installation.
 - The Availability Manager Data Collector V3.2-1 kit supersedes all data collectors installed from the V3.2 kit.

2. Release Considerations

- The Availability Manager Data Collector installation may require a system reboot, see the Availability Manager Installation Instructions, Section 3.3.1.
- The Availability Manager for Windows installation requires the removal of any beta test version of the Windows kit. For saving any configuration and log files, see the Availability Manager Installation Instructions, Section 4.1.
- The Availability Manager configuration files for OpenVMS have been updated. For further information, see the Availability Manager Release Notes, Section 3.1.1.
- The location of the configuration and log files has been updated. For further information, see the Availability Manager Release Notes, Section 3.1.2.

3. New Features and Improvements

This section discusses new features and improvements introduced in V3.2-1 of the VSI Availability Manager.

3.1. New Features for Availability Manager

The following improvements pertain to both the OpenVMS and Windows editions of the Availability Manager.

3.1.1. Configuration File Updates

This version of the Availability Manager has updated configuration and other files. Some of the updates are due to the new features in this version, and some of the updates are to remove text and configuration logicals that are not used by the Availability Manager.

3.1.1.1. Saving Configuration Files

VSI recommends saving the configuration INI, XML, and JKS files in the Availability Manager installation directory. Once the Availability Manager installation is complete, the *VSI Availability Manager Version 3.2-1 Installation Instructions* guide where to place these files.

3.1.1.2. Updating Configuration Files from Templates

VSI highly recommends copying the AMDS\$LOGICALS.TEMPLATE file to AMDS\$LOGICALS.COM and updating it with your settings. The same applies to AMDS\$DRIVER_ACCESS.TEMPLATE and AMDS\$DRIVER_ACCESS.DAT files.

3.1.2. Allow for Per-User Customizations and Log File Storage

The default location for configuration and log files for the Availability Manager are now in the user's directory instead of the installation directory. This allows you to set various customizations independent of other Availability Manager users on the system.

The files are stored by default in the AMDS\$AM subdirectory. Config and Log subdirectories within the AMDS\$AM subdirectory contain the configuration and log files, respectively.

For Windows systems, the default setup creates the folder AMDS\$AM in the user's folder (typically C:\Users\<username>). The configuration and log locations can be overridden by creating the AMDS\$AM_CONFIG and AMDS\$AM_LOG environment variables before starting the Data Analyzer or Data Server.

For OpenVMS systems, the default setup creates the subdirectory AMDS\$AM in the user's SYSS\$LOGIN directory. The configuration and log locations can be overridden by creating the AMDS\$AM_CONFIG and AMDS\$AM_LOG logical names before starting the Data Analyzer or Data Server.

Note

Configuration files related to the Data Server still reside in the installation directory because there is only one Data Server configuration for the system.

3.2. New Features for Availability Manager on Windows

This section discuss new features and improvements for the Windows version of the Availability Manager.

3.2.1. 64-bit Microsoft Windows 10 Support

In V3.2-1, the Availability Manager installs and runs on 64-bit Microsoft Windows 10 systems. Updates to the Windows protocol driver and Data Server configuration have been made to accommodate requirements for 64-bit Windows.

Important

VSI Availability Manager V3.2-1 does *not* support 32-bit Microsoft Windows versions.

3.2.2. Optional Installation of the Windows Protocol Driver

The Windows protocol driver allows the Data Analyzer and Data Server to communicate with OpenVMS systems on a local LAN. You must have Administrator privilege on the Windows system in order to install and use this driver. If you do not have Administrator privilege system, or only connect to a remote Data Server, you do not need to install the driver.

A screen in the kit's installation wizard allows you the option of installing the driver. By selecting the checkbox, the driver is installed, requiring Administrator privilege. By leaving the checkbox clear, the Data Analyzer is installed without the driver, and the installation proceeds without the need for Administrator privilege.

3.2.3. Data Server Configuration Utility Added for Data Server Customization

The Data Server configuration utility has been added to the Availability Manager Windows installation to configure the IP port number for the network adapters on the system. The new *VSI Availability Manager Data Server Guide for Microsoft Windows* provides the configuration process instructions.

For OpenVMS, there is only one port number necessary when running the Data Server, and it is specified by the /PORT_NUMBER qualifier. The port numbers available for use are the same as those described in the *VSI Availability Manager Data Server Guide for Microsoft Windows*.

3.2.4. Windows Driver Queues for Network Packets Enhances Data Analyzer/Data Server Performance

Monitoring large OpenVMS systems or clusters, especially when viewing the Data Analyzer over a remote connection, could result in a number of DCSLOW and DCCOLT events due to the number of packets exceeding what the Data Analyzer or Data Server could service. In extreme cases, this could result in long delays in updating data in Data Analyzer displays.

The Windows protocol driver has been enhanced to queue up bursts of incoming network packets, allowing the Data Analyzer or Data Server time to service them. The Data Analyzer/Data Server have also been enhanced to allow for concurrent writes of network packets to OpenVMS systems, allowing for faster data collection. Each of these enhancements allows the Data Analyzer and Data Server to service a greater number of OpenVMS systems.

The read queue size and the number of concurrent writes are set to 10 and 2 by default. These values work well for monitoring a large OpenVMS cluster. However, if you experience the above symptoms, you might find it helpful to adjust the read queue length.

The default values can be overridden by defining Windows registry values. Both are in the following registry folder:

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\AmNdis60\Configuration
```

Table 1. Windows Driver Registry Keys

Registry Key	DWORD Value
RecvBufferQueueSize	Default is 10, maximum is 100

Registry Key	DWORD Value
SendBufferCount	Default is 2, maximum is 10

3.2.5. OpenVMS Driver Queues for Network Packets Enhances Data Analyzer/Data Server Performance

This enhancement is the OpenVMS driver equivalent of the enhancements made to the Windows driver in Section 3.2.4.

The read queue size is set to 20 by default. This value works well for monitoring a large OpenVMS cluster. However, if you experience a number of DCSLOW and DCCOLT events, you might find it helpful to adjust the read queue length.

The default value can be overridden by adjusting the value of AMDS\$NUM_RCV_PACKETS in the file SYSS\$MANAGER:AMDS\$LOGICALS.COM. If this value is not in your file, then you can copy the section from the file SYSS\$MANAGER:AMDS\$LOGICALS.TEMPLATE.

3.2.6. Set Java Heap Values for Data Analyzer and Data Server

Java heap values affect how Java applications perform. The settings for the Availability Manager Data Analyzer and Data Server have been set to monitor large systems. However, in case these values are insufficient, you can override the default values by creating Windows environment variables. These variables are as follows:

Table 2. Java Heap Variables for Data Analyzer and Data Server

Component	Heap type	Variable
Data Analyzer	Initial heap	AMDS\$AM_DA_JAVA_INITIAL_HEAP_SIZE
	Maximum heap	AMDS\$AM_DA_JAVA_MAX_HEAP_SIZE
Data Server	Initial heap	AMDS\$AM_DS_JAVA_INITIAL_HEAP_SIZE
	Maximum heap	AMDS\$AM_DS_JAVA_MAX_HEAP_SIZE

Note

For OpenVMS, these values are specified by the /IHEAP and /MHEAP qualifiers.

4. Fixed Issues

The following issues have been fixed in V3.2-1 of the Availability Manager.

4.1. Support for OpenVMS 2 TB Disk Volumes

Previous versions of VSI Availability Manager would display volume size data as negative numbers if the values were greater than 1 GB. This issue has been fixed.

4.2. Support for Monitoring LD Disk Volumes

The VSI Availability Manager did not display LD disk volumes (LDAn:) on OpenVMS systems. The cause was a change in device characteristics for the recent LD disk driver version. The device filter for disk drives in disk volume data collections has been updated, and now the disk volumes are displayed.

4.3. Fixed issues from the V3.2 Data Collector kit

Due to the importance of the fixes in the Availability Manager V3.2 Data Collector kit, the fixes are included.

4.3.1. System crash - INVTQEFMT, Invalid time queue entry format

Under rare circumstances, the Data Collector would crash when generating a Hello packet. This packet is read by the Data Analyzer, and causes the Data Analyzer to start monitoring the system.

The problem was in queueing a future request to generate next Hello packet, using an OpenVMS TQE for the request. The problem has been fixed.

4.3.2. Setting SYSGEN Parameter LAN_FLAGS is no longer necessary

In OpenVMS Patch kit VMS732_LAN-V0700 introduced a mechanism for tracking buffers holding network traffic from the network. Any software that receives these buffers needs to return them in a specified manner. With this change, using the Data Analyzer on an OpenVMS system for a while would suddenly show the PTHLST event for all remote systems. The workaround was to set SYSGEN parameter LAN_FLAGS bit 16 on.

RMDRIVER has been updated to return the buffers as specified by OpenVMS. Setting LAN_FLAGS bit 16 is no longer necessary.

4.3.3. Single Disk Pane Operation Rate and Queue Length values have been corrected

The Single Disk pane would display the disk operation rate and queue length with values one hundred times the actual value. The values were not correctly scaled to display the actual values. This has been fixed.

5. Operation Notes and Restrictions

This section contains notes pertaining to the operation of the VSI Availability Manager V3.2-1.

5.1. Starting the Data Server Might Trigger Windows Security Alert

On Windows systems, a security alert from the Windows firewall or third-party firewall might be displayed for the Java 2 Platform Standard Edition binary. The Data Server needs to accept connections as part of its normal operation. Set the firewall to unblock the program.

5.2. Running Reflective Memory by GE Fanuc and Availability Manager

The Reflective Memory product by GE Fanuc sets up the device RMA0: as part of its normal operation. Because the Availability Manager Data Collector also creates the device RMA0:, both products cannot run on the same node at the same time.

6. Display Notes

The following note pertains to the display of Data Analyzer data on all platforms.

6.1. 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.