

VSI OpenVMS

Getting Started with the VSI Availability Manager

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Preface

1. About VSI

VMS Software, Inc. (VSI) is an independent software company licensed by Hewlett Packard Enterprise to develop and support the OpenVMS operating system.

2. About This Document

The purpose of this document is to help you:

- Understand what the Availability Manager is
- Understand how the Availability Manager works
- Get started using the Availability Manager

The VSI Availability Manager is capable of doing much more than this tutorial describes.

3. Related Documents

The following documents provide additional information:

- *VSI Availability Manager Version 3.2-1 Installation Instructions* contain information about installing the VSI Availability Manager on OpenVMS and Windows systems.
- *VSI Availability Manager User's Guide* explains how to use the VSI Availability Manager software to detect and correct system availability problems.
- *VSI Availability Manager Data Server Guide for Microsoft Windows* provides a configuration example for the Data Server running on Windows 10 and explains how to configure network adapters for this system.

These documents are available on the VSI OpenVMS website at .

Chapter 1. Getting Started with the VSI Availability Manager

1.1. What Is the Availability Manager?

The Availability Manager is a real-time monitoring and diagnostic tool. Using this tool, you can examine data from multiple OpenVMS systems simultaneously.

The Availability Manager not only collects data but also analyzes it and signals problems that occur. You can then select a specific node or process for detailed analysis. You can also use this tool to correct many performance problems as soon as they occur.

1.2. How Does the Availability Manager Work?

Once it starts, the Availability Manager GUI interface, the Data Analyzer, looks for notifications from OpenVMS nodes using the Data Collector. These notifications are called **multicast "Hello" messages**. After receiving a multicast "Hello" message from the Data Collector, the Availability Manager attempts to connect to a node. This is called the **attempting collection** state.

If the node passes the security check while attempting the connection, the connection succeeds, and data collection starts. This is called the **data collection** state. If the node fails the security check, that node is in the **connection failed** state.

While collecting data, if a node goes down, or a network connection fails between the graphical user interface and the node, that node is put into a **path lost** state.

The Availability Manager notifies you of these states in the application window, which is shown in Figure 1.1.

1.3. How Do I Use the Availability Manager?

After you install it, the Data Analyzer displays the data it collects from the Data Collectors. Data is displayed on screens, or windows. Many windows are divided into **panes** that display specific categories of information. For example, after installing and starting the Availability Manager, you first see the System Overview Window (Figure 1.1).

Figure 1.1. System Overview Window

Groups/Nodes	# CPUs	CPU	MEM	PFLT	PFWICOM	BIO	DIO	CPU Qs	Events	Proc Ct	OS Version	HW Model	HW Ar
ASIAN9819			3M/55M	2 - 0G/0	0/0/0	7/1.4K	0	10/6.1K	0	connected	K3.0.2 (build 1...	16.118.172.13 port 9819	
OpenVMS (3) (15)													
DECAMDS (4)	12/12	25	85	0/0	0/0	0	0	1	5	180/2149			
KOINE (7)	10/10	0	24	0/0	0/0	0	0	0	3	128/11350			
AM1164	2/2	0	71	0/0	0/0	0	0	0	1	20/533	V8.3	HP rx2600 (900MHz/1.5MB)	i64
AM2164	2/2	0	4	0/0	0/0	0	0	0	0	20/8192	V8.2.1	HP rx2600 (900MHz/1.5MB)	i64
AM3164	2/2	0	26	0/0	0/0	0	0	0	0	17/525	V8.2	HP rx2600 (900MHz/1.5MB)	i64
AMDS10	1/1	0	47	0/0	0/0	0	0	0	2	19/524	V8.3	AlphaServer DS10L 617 MHz	Alpha
AMDS11	1/1	0	8	0/0	0/0	0	0	0	0	17/524	V8.2	AlphaServer DS10L 617 MHz	Alpha
AMDS12	1/1	0	7	0/0	0/0	0	0	0	0	18/528	V7.3.1	AlphaServer DS10L 617 MHz	Alpha
AMDS13	1/1	0	7	0/0	0/0	0	0	0	0	17/524	V7.3	AlphaServer DS10L 617 MHz	Alpha
STAR (4)	4/4	10	56	0/0	0/0	1/01	59	0	1	38/708			
16.212.8.229-9819			2M/55M	2 - 0G/0	0/0/0	2/0.7K	0	4/3.4K	0	connected	V8.0.2 (build 11...	16.212.8.229 port 9819	
OpenVMS (1) (3)													
DECAMDS (3)	3/3	5	64	192/65	0/0	143	95	0	6	165/550			
DS20	1/1	2	63	105/38	0/0	54	23	0	2	48/352	V8.3	AlphaServer DS20 500 MHz	Alpha
DS20E	1/1	12	76	452/149	0/0	362	177	0	2	68/365	V8.3	COMPAQ AlphaServer DS20E 500 MH	Alpha
RX2600	1/1	3	55	37/10	0/0	14	85	0	2	49/833	V8.3	HP rx2600 (900MHz/1.5MB)	i64

Node	Group	Date & Time	Sev.	Event	Description
MIKUMI	DECAMDS	08-Apr-2009 18:33:55.847	85	DCCOLT	MIKUMI ORIG LOCK_FULL data collection completed in 23 seconds
MIKUMI	DECAMDS	08-Apr-2009 18:33:02.711	85	DCCLOW	MIKUMI ORIG LOCK_FULL data collection taking longer than collection int
BHAK	STAR	08-Apr-2009 18:30:05.165	80	HIALNR	BHAK alignment fault rate is high
AM1164	KOINE	08-Apr-2009 18:30:16.111	80	LCKCNT	AM1164 possible contention for resource QMAN\$JBC_ALIVE_01
AMDS10	KOINE	08-Apr-2009 18:30:17.954	80	LCKCNT	AMDS10 possible contention for resource QMAN\$JBC_ALIVE_01
KATMAI	DECAMDS	08-Apr-2009 18:30:19.956	80	LCKCNT	KATMAI possible contention for resource IOGEN\$_170
RX2600	DECAMDS	08-Apr-2009 18:30:21.399	80	LCKCNT	RX2600 possible contention for resource \$DSAXC11_2042B86CBF260000
RX2600	DECAMDS	08-Apr-2009 18:30:21.399	80	LCKCNT	RX2600 possible contention for resource \$DSAX002_\$WATCHR
RX2600	DECAMDS	08-Apr-2009 18:30:21.399	80	LCKCNT	RX2600 possible contention for resource \$DSAXC11_2042C46DBF2A0000

Group [DECAMDS] has 4 nodes 53 63K/65088K 18:33:55

Note

If you do *not* see a System Overview Window similar to the one shown in Figure 1.1 after you start the Availability Manager, the setup or configuration of your Data Analyzer and Data Collector nodes might be incorrect or incomplete. The groups that are displayed in the **Group** pane are defined by the system manager. (See the *VSI Availability Manager User's Guide* for details.)

Also, for basic installation tasks, you might need to see the *VSI Availability Manager Version 3.2-1 Installation Instructions*.

As shown in Figure 1.1, the System Overview Window is divided into two sections, or **panes**:

- **Group/Node pane**

This pane, which is at the top of the window, displays the monitored nodes for each group and high-level summary data about each node. The number in parentheses after a group name is the total number of nodes in the group. In the **OS Version** column, you might see as many as five colored columns that contain numbers. Each colored column contains the number of nodes in a group that are in a particular **state**. Table 1.1 explains the states that the colors represent.

Table 1.1. Explanation of Color Codes in the System Overview Window

Color	Description
Brown	Attempts to configure nodes have failed—for example, because the nodes are in a connection failed state.
Yellow	Nodes are in the attempting collection state; that is, the security check of the nodes is in progress. Nodes that remain in this state more than several seconds indicate network connectivity problems between the Data Analyzer and the Data Collector.
Black	Nodes are in a path lost state; that is, the network path to the node has been lost or the node is not running.

Color	Description
Red	Nodes are in the data collection state—that is, they are collecting data—but the nodes have exceeded a threshold, causing events to be posted. Note that if an event causes the output of any message besides an informational one, a node is displayed in red.
Green	Nodes are in the data collection state; that is, the security check was successful, and the nodes are collecting data.

- **Event pane**

This pane is at the bottom of the System Overview Window. When an event occurs on any node that is being monitored on your system, that event is displayed in this list.

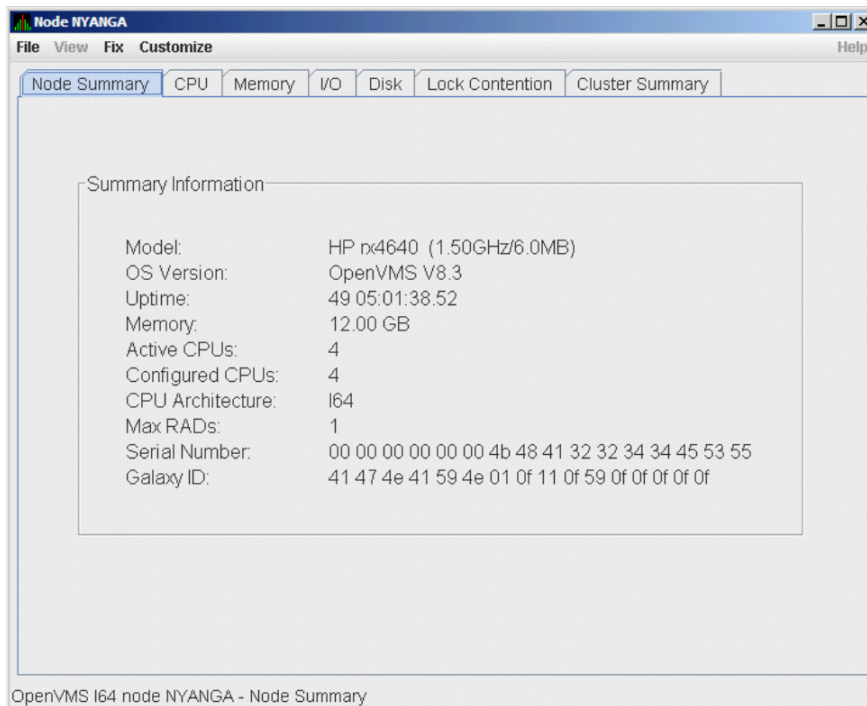
To start using the Availability Manager, follow these steps:

1. To display data about nodes in a particular group, click a group name in the **Group** pane. The nodes in that group are displayed in the **Node** pane. The icon that precedes a node name is displayed in one of five colors. The colors have meanings similar to those for the columns preceding group names in the **Group** pane:

Color of Icon	Meaning
Green	Security check was successful; data is being collected.
Yellow	Node security check is in progress or has failed.
Red	Security check was successful. However, a threshold has been exceeded, and an event has been posted.
Brown	Attempts to configure the node have failed—for example, because it failed the security check.
Black	Network path to node has been lost.

Data pertaining to the node follows each node name. Any data displayed in red indicates that the data exceeds a threshold. (The *VSI Availability Manager User's Guide* explains how to change threshold settings.)

2. To select a node for closer analysis, double-click a node name that has a red or green icon preceding it. The Availability Manager first displays the Node Summary Page, shown in Figure 1.2.

Figure 1.2. Node Summary Page

3. To view a specific category of node data, click the appropriate tab on the Node Summary page. To change the rate that data is collected, use the **Customize** menu.
4. The **Event** pane at the bottom of the System Overview Window (see Figure 1.1) displays two categories of events:
 - Events that time out after 30 seconds, such as "configuration done."
 - Events that are displayed as long as the condition exists, such as "high direct I/O rate."

The following table show some general tasks you might want to perform.

To do this...	Take this action
Close the current window.	Click × in the upper right corner of that window.
Get help at any time.	Click Help on the top menu bar and choose Availability Manager Help .
Stop the Availability Manager.	Click File on the top menu bar and then choose Exit .