

## Getting Started with the HP Availability Manager

The purpose of this help module is to help you:

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

The HP Availability Manager is capable of doing much more than this tutorial describes. For more information about performing fixes, customizing this tool, and using other features, see the *HP Availability Manager User's Guide*.

### 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.

### 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.

### 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).

Figure 1 System Overview Window

File View Customize Help													
Groups/Nodes	# CPUs	CPU	MEM	BIO	DIO	CPU Qs	Events	Proc Ct	OS Version	HW Model		HW Arch	
DEVICE{3F378E68-7D55-46AB-9342-6C217B6FF568}				0/0.0K		0/0.0K	0	connected		Broadcom NetXtreme Gigabit Ethernet - Pack...			
Ami64.zko.hp.com:9819				11/2.9K	0	7/4.7K	173/61	connected	V3.0-1 (build 1168)	16.116.44.218 port 9819			
OpenVMS (3) (19)													
DECAMDS (8)		23/26	0	13	1	0	4	165/3633		4	4		
KOINE (4)		7/7	41	26	212	4751	1	9	105/12965		4		
AMI264		2/2	39	4	222	9077	0	2	19/8192	V8.2-1	HP rx2600 (900MHz/1.5MB)		I64
AMI64		2/2	40	44	575	8975	1	3	25/534	V8.3	HP rx2600 (900MHz/1.5MB)		I64
KOINE		1/1	85	49	52	954	0	3	33/143	V7.1	DEC 3000 Model 400		Alpha
KOINE3		2/2	1	8	0	0	0	1	28/4096	V7.3-2	COMPAQ AlphaStation DS20E 833 M		Alpha
KOINE2 (7)		15/15	4	11	40	2529	2	2	206/6024		2	5	
AFFS10		2/2	0	8	0	0	0	0	42/722	V7.3-1	AlphaServer 4000 5/466 4MB		Alpha
AFFS14		4/4	17	51	195	13923	0	1	27/957	V8.3	HP rx4640 (1.30GHz/3.0MB)		I64
AFFS21		1/1	0	3	0	0	0	0	28/1500	V7.3-2	AlphaServer DS15		Alpha
AFFS24		2/2	9	5	47	2300	1	0	28/709	V7.3-2	AlphaServer DS20 666 MHz		Alpha
AFFS6		2/2	7	2	41	1486	1	1	24/703	V7.1-2	COMPAQ AlphaServer DS20E 666 MH		Alpha
AFFS7		2/2	0	4	0	0	0	0	34/728	V7.2-2	COMPAQ AlphaServer DS20E 666 MH		Alpha
AFFS8		2/2	0	4	0	0	0	0	23/705	V7.3	AlphaServer DS20 666 MHz		Alpha
Node	Group	Date & Time				Sev...	Event	Di					
MONSON	DECAMDS	03-Aug-2007 07:44:41.112				80	LCKCNT MONSON possible contention for resource VCS\$IOD						
MONSON	DECAMDS	03-Aug-2007 07:44:41.112				80	LCKCNT MONSON possible contention for resource VCS\$SCA						
8BALL	DECAMDS	03-Aug-2007 07:45:00.926				80	LCKCNT 8BALL possible contention for resource VCS\$SCAM						
8BALL	DECAMDS	03-Aug-2007 07:45:00.926				80	LCKCNT 8BALL possible contention for resource VCS\$IODL						
AMI64	KOINE	03-Aug-2007 07:44:58.132				60	HIBIOR AMI64 buffered I/O rate is high						
KOINE	KOINE	03-Aug-2007 07:50:59.68				60	HIDIOR KOINE direct I/O rate is high						
AMI64	KOINE	03-Aug-2007 07:55:36.945				60	HIDIOR AMI64 direct I/O rate is high						
KOINE	KOINE	03-Aug-2007 07:55:20.146				60	HINTER KOINE interrupt mode time is high						
RUBY3	DECAMDS	03-Aug-2007 07:45:10.627				30	RESPRS RUBY3 resource hash table sparse, only 5% full						
Group [DECAMDS] has 8 nodes													
												07:55:36	

#### Note

If you do not see a System Overview Window similar to the one shown in Figure 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 *HP Availability Manager User's Guide* for details.)

Also, for basic installation tasks, you might need to see the *HP Availability Manager Installation Instructions* on the Documentation page at our web site:

<http://www.hp.com/products/openvms/availabilitymanager/docs.html>

As shown in Figure 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 or of nodes in a group that are in a particular **state**. Table 1 explains the states that the colors represent.

**Table 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.
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 numbered steps:

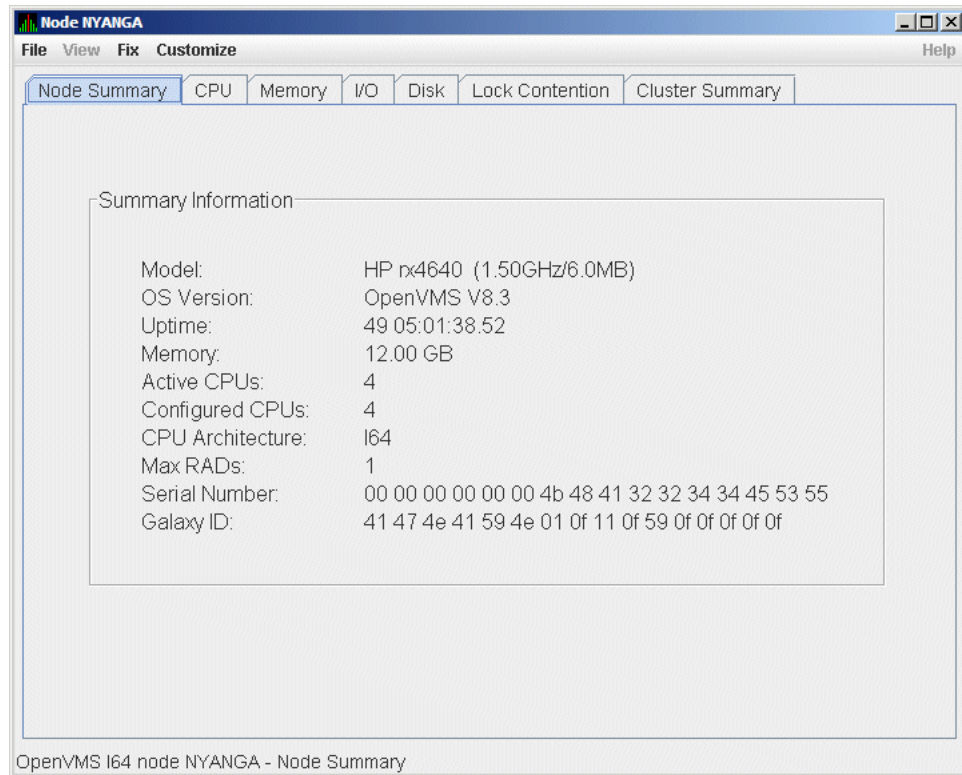
1. To display data about nodes in a particular group, click a group name in the Group pane. The nodes in that group are displayed in the Node pane.  
The icon that precedes a node name is displayed in one of five colors. The colors have meanings similar to those for the columns preceding group names 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 *HP Availability Manager User's Manual* 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 2.

**Figure 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) 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 the <b>X</b> in the upper right corner of that window.
Get help at any time.	Click <b>Help</b> on the top menu bar and choose <b>Availability Manager Help</b> .
Stop the Availability Manager.	Click <b>File</b> on the top menu bar and then choose <b>Exit</b> .