Operations Manager i

Software Version: 10.63

Troubleshooting

Hewlett Packard Enterprise

Legal Notices

Warranty

The only warranties for Seattle SpinCo, Inc and its subsidiaries ("Seattle") 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. Seattle shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Except as specifically indicated, valid license from Seattle 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.

Copyright Notice

© 2015 - 2017 EntIT Software LLC, a Micro Focus company

Trademark Notices

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

AMD, the AMD Arrow symbol and ATI are trademarks of Advanced Micro Devices, Inc.

Citrix® and XenDesktop® are registered trademarks of Citrix Systems, Inc. and/or one more of its subsidiaries, and may be registered in the United States Patent and Trademark Office and in other countries.

Google™ and Google Maps™ are trademarks of Google Inc.

Intel®, Itanium®, Pentium®, and Intel® Xeon® are trademarks of Intel Corporation in the U.S. and other countries.

iPad® and iPhone® are trademarks of Apple Inc.

Java is a registered trademark of Oracle and/or its affiliates.

Linux® is the registered trademark of Linus Torvalds in the U.S. and other countries.

Microsoft®, Windows®, Lync®, Windows NT®, Windows® XP, Windows Vista® and Windows Server® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

NVIDIA® is a trademark and/or registered trademark of NVIDIA Corporation in the U.S. and other countries.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

Red Hat® is a registered trademark of Red Hat, Inc. in the United States and other countries.

SAP® is the trademark or registered trademark of SAP SE in Germany and in several other countries.

UNIX® is a registered trademark of The Open Group.

Documentation Updates

To check for recent updates or to verify that you are using the most recent edition of a document, go to: https://softwaresupport.softwaregrp.com/.

This site requires that you register for an HPE Passport and to sign in. To register for an HPE Passport ID, click **Register** on the HPE Software Support site or click **Create an Account** on the HPE Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HPE sales representative for details.

Support

Visit the Software Support site at: https://softwaresupport.softwaregrp.com/.

Most of the support areas require that you register as an HPE Passport user and to sign in. Many also require a support contract. To register for an HPE Passport ID, click **Register** on the Support site or click **Create an Account** on the HPE Passport login page.

To find more information about access levels, go to: https://softwaresupport.softwaregrp.com/web/softwaresupport/access-levels.

Software Solutions Now accesses the Solution and Integration Portal website. This site enables you to explore HPE product solutions to meet your business needs, includes a full list of integrations between HPE products, as well as a listing of ITIL processes. The URL for this website is https://softwaresupport.softwaregrp.com/km/KM01702731.

Contents

Troubleshooting

This guide contains the following chapters:

General troubleshooting

This section describes common problems and limitations that you may encounter when working in the Administration area of OMi.

For additional troubleshooting information, use the Self-Solve Knowledge Search
https://softwaresupport.softwaregrp.com/group/softwaresupport/search-result?keyword=

Additional troubleshooting information

With the following tools and tips you can gather troubleshooting information in addition to the OMi logs.

Data Collection Tool opr-checker.bat

If you are having problems with your OMi installation and need to contact Software Support, use the **opr-checker** tool to generate a summary of your installation.

1. Run the **opr-checker** tool from the following location and specify a target location for the output file:

   `<OMi_HOME>/opr/support/opr-checker.[bat|sh] -a -xml > <TempDir>/opr-checker.xml`

2. Send the resulting XML file to Software Support for analysis.

General connectivity problems related to ports

Verify that all ports required by OMi servers are not in use by other applications on the same machine. To do so, open a command prompt or terminal window, and run netstat (or use any utility that enables you to view port information). Search for the required ports.

You can also check the `<OMi_HOME>/log/jboss7_boot.log` for ports in use. If the `jboss7_boot.log` reports "`Port <> in use`" but you do not see that this port is in use when you run netstat utility, restart the server and then start OMi.

For details on the ports required by OMi, see Port Usage.

> **Tip:** To troubleshoot port usage problems, use a utility that lists all ports in use and the application that is using them.

Tracing and Logging OMi User Interfaces

The OMi logging and tracing capabilities for Apache Flex-based UIs help simplify on-site troubleshooting.

Logging is designed to be run on the client system and uses JavaScript to send logging and tracing output to a browser window. You can enable logging and tracing on demand and save the output to aid troubleshooting.

Note: Due to sandbox restrictions in the Adobe Flash Player and the browser, it is not possible to write logs to the client's local file system.

Tip: Use the browser's built-in developer tools to troubleshoot the OMi HTML5-based UIs.

To enable logging, do the following:

1. Log on to OMi:

   `https://<server_name>.<domain_name>/omi`

2. Open the following URL to open the logging configuration application.

   `https://<server_name>.<domain_name>/opr-admin-server/logging/logging.html`

   The Logging Settings dialog box opens.

3. To enable logging, select the **Enable logging for this session** check box.

4. Select the required logging level. Each log level includes the higher levels:

   Critical: Shows only problems of level Critical.

   Error: Shows problems of level Error and Critical.

   Warning: Shows problems of level Warning, Error, and Critical.

   Info: Shows problems of level Info, Warning, Error, and Critical. The resulting information provides a brief overview over the flow of the executed steps.

   Debug: Shows problems of level Info, Warning, Error, and Critical. The resulting information provides a detailed, verbose view over the flow of the executed steps.

5. *Optional.* Set a filter value to find instances of the specified text strings. By default, all messages that have a category starting with `com.hp.` are logged. You can restrict this to certain categories to filter the output or extend it, for example, to show messages from the Flex framework.

6. Click **Apply**.

The settings become effective for the current browser session.

7. Restart the user interface that you want to trace.

   As soon as the first log output is sent, a browser window opens that shows the log messages.

   > **Note:** Each time you change the logging settings you must restart the user interface that you want to trace.
   >
   > The settings are for applications that are served from the same domain as that of the current browsing session. If you restart the web browser, you must reapply the logging settings.

To save the log information, do the following:

1. In the browser window that shows the log messages, click **Export to log4j**.

2. In the **Opening GuiTrace.log** dialog box, select whether you want to open or save the `GuiTrace.log` file.

Event correlation troubleshooting

Learn how to solve problems relating to event correlation, including creating, modifying, and enabling events.

Correlations are Skipped in High Load Situations

If a high number of events with ETIs is forwarded to OMi over a long period of time (30 minutes or longer), the correlation engine only considers up to the specified number of most recent events. If this limit is exceeded, the oldest events are removed from the queue and no longer considered for correlation.

This limit is set using the Max Waiting Queue Size attribute and is located in:

Administration > Setup and Maintenance > Infrastructure Settings > Operations Management > Topology-Based Event Correlation Settings

The default value is 5000. The valid range is 100 to 20000.

If you are experiencing this problem, lower the incoming event rate or increase the Max Waiting Queue size limit. If the limit is increased, you should also monitor the memory consumption and, if necessary, increase the memory setting (parameter -Xmx) for the opr-backend process.

Rules Topology Pane is Empty

- No rule is selected in the Correlation Rules pane

- No view is active in the Rules Topology pane

Indicators List is Empty

- No configuration item type is selected in the Rules Topology pane

- No indicator is defined for the selected CI type

Cannot Save Correlation Rule

The rule is invalid or incomplete, for example:

- The rule does not have at least one *symptom* event

- The rule does not have a *cause* event

- The topology path is invalid

- The rule refers to a configuration item that is not resolvable

Correlation Generator Displays URL in Title Bar

- This issue is related to the Security Settings of Internet Explorer.

  To display the title in place of the URL, go to:

  Internet Options> Security> Internet Zone> Custom Level

  Enable **Allow web sites to open windows without address or status bars**.

Load and access troubleshooting

Learn how to solve problems if components of OMi fail to load, or if certain areas in OMi cannot be accessed.

RTSM Administration pages do not load

If the links from RTSM Administration do not work, this may be caused by one of the following:

- Make sure that the OMi gateway server is able to access the Default Virtual Server for Application Users URL. This URL can be found in Infrastructure Settings:

  Administration > Setup and Maintenance > Infrastructure Settings

  Alternatively, click Infrastructure Settings.

  In the **Foundations** field, specify **Platform Administration**. The URL is located in the **Host Configuration** table.

- If you are using a reverse proxy or load balancer, make sure you log in through the URL specified above.

Recipients page fails to open

The Recipients page does not open, or the recipients page opens, but recipients cannot be added or modified.

This error occurs if the default templates for recipients were not loaded when OMi was installed. Do the following to fix this issue:

1. Access **Administration > RTSM Administration > Package Manager**.

2. Click **Deploy packages to server (from local disk)**.

3. Click **Add**, select the `BSMAlerts.zip` file and click Open. Deploy the package.

   You may have to copy the `BSMAlerts.zip` file from the OMi system to your local system.

Note: Recipients that were create before `BSMAlerts.zip` was redeployed have no valid notification template and must be deleted and added again.

Java applets fail to load

Open **Control Panel > Java > Temporary Internet Files > Settings** and make sure **Keep temporary files on my computer** is selected. If the problem persists, clear the Java cache by clicking **Delete Files** in the same location.

OMi dialog boxes and applets, such as the Authentication Wizard, do not load properly

Possible Cause:

Old java files on your client computer.

Solution:

Clear the Java cache by following this procedure:

1. Open **Control Panel > Java > Temporary Internet Files > Settings**.

2. In the Temporary Internet Files section, click **Settings**.

3. In the Temporary File Settings dialog box, click **Delete Files**.

Applets may take longer to open for clients with JRE 7 update 25 and later

This is due to Java security enhancements. Before Java applets and Java Web Start applications run, the signing certificates are checked to ensure that a signing certificate was not revoked.

If there is a proxy problem or any other network issue, you should disable this Java feature.

To disable Java from performing certificate revocation checks:

1. Open the **Control Panel**.

2. Click the **Java** icon to open the Java Control Panel.

3. Click the **Advanced** tab.

4. Locate and deselect the option to perform certificate revocation checks.

Workspaces menu is empty after reconfiguration

After the reconfiguration of OMi in a distributed environment, the workspaces menu is empty.

Possible Cause:

This error might occur if a new database is created on the data processing server, with the `uimashup` files being on the gateway server.

Solution:

If the database was recreated during the reconfiguration, run the following commands to copy the `uimashup` files to the correct location:

Windows: `xcopy /S /Y "<OMi_Home>\conf\uimashup\import\loaded\*" "<OMi_Home>\conf\uimashup\import\toload"`

Linux: `-rf /opt/HP/BSM/conf/uimashup/import/loaded/* /opt/HP/BSM/conf/uimashup/import/toload`

Event Browser (HTML) displays Japanese view name as ???????

After reloading the Event Browser (HTML), Japanese view names are displayed as question marks, and no events are listed.

Solution:

This issue occurs if the Microsoft SQL Server database is not installed on a Japanese operating system. To resolve the issue, install the MS SQL database on a Japanese operating system.

Load balancer troubleshooting

Learn how to solve problems that can occur if you use a load balancer.

Intermittent UI failures after connecting through load balancer

OMi requires sticky sessions for users. Make sure the persistency settings are set to **stickiness by session enabled** or **Destination Address Affinity** (depending on the load balancer).

OMi Login page does not appear when connecting through load balancer

- Check the KeepAlive URIs.
- Virtual hosts and load balancer must be configured with a fully qualified domain name (and not an IP) for LW-SSO to work.

Connectivity and login troubleshooting

Learn how to solve connectivity and login issues.

OMi connectivity is down, but the Tomcat servlet engine and application server appear to be working

Connectivity problems include the inability to log into OMi.

Possible Cause:

This can happen if the **TopazInfra.ini** file is empty or corrupt.

To verify that this is the problem:

1. In a browser on the gateway server, type `https://localhost:29000` to connect to the JMX console.

    If prompted, enter the JMX console authentication credentials (if you do not have these credentials, contact your system administrator).

2. Under **Topaz**, select **Topaz:service=Connection Pool Information**.

3. Click the **showConfigurationSummaryInvoke** button toward the bottom of the page. If the Operation Result page is blank, the **TopazInfra.ini** file is empty or corrupt.

Solution:

To solve this problem, rerun the OMi configuration wizard and either reconnect to your existing management database or define a new management database. If you did not discover a problem with the **TopazInfra.ini** file, contact Software Support.

Browser unable to reach OMi and an error about insufficient heap space

Possible Cause:

The page file size is too small.

Solution:

Configure the page file size to be at least 150% of RAM size. Restart the server.

Tracking Login Attempts and Logged In Users

You can track who attempted to log into OMi:

1. Open the following file:

2. **<OMi_HOME_GW>/log/jboss/UserActions.servlets.log**

You can display a list of the users that are currently logged in:

1. Open the JMX console on the machine that is running OMi. (For detailed instructions, see "JMX Console" on page 1.)

2. Under the **Topaz** section, select **service=Active Topaz Sessions**.

3. Invoke the **java.lang.String showActiveSessions()** operation.

Business logic engine service is currently unavailable

You receive the error message "Business logic engine service is currently unavailable" when running discovery or integration jobs while working on dashboards that are tightly coupled with the RTSM model.

Possible Cause:

Due to the discovery or integration jobs, marble receives massive topology changes from the UCMDB. By design, marble restarts the dashboard service to reload the model. The outage lasts about 90 seconds after the shutdown notification was received.

Solution:

We suggest not to run discovery and/or integration jobs during the hours in which you modify dashboards.

High availability troubleshooting

Find solutions for common problems that you may encounter when OMi is configured in a high availability setup.

Processes do not resume restart automatically after automatic failover

If the High Availability Controller's Automatic Failover mode is enabled and the management database has been down for some time, some processes may be stopped and will not resume automatically when the management database returns to normal operation. These processes will have the status **STARTING** on the OMi `serverStatus.jsp` tool (Windows: `<OMi_HOME>\topaz\serverStatus.jsp`, Linux: `/opt/HP/BSM/topaz/serverStatus.jsp`).

Solution:

Restart these processes once the management database is available again.

`log/odb_boot.log` shows RTSM failed error

Possible Cause:

The handling of the high availability information has been changed with RTSM 10.22, and due to this the following messages might be logged in `/log/odb_boot.log` after an update to 10.63 or higher:

`SEVERE: <db>_rtsm: failed removing row 1: java.io.EOFException; please delete it manually`

Solution:

The messages can be ignored, but they will make it difficult to find real problems in the log file. Stop the messages by emptying the following two tables in the RTSM database:

MS SQL databases:

`DELETE FROM [TABLE_NAME].[dbo].[HA_WRITER]`

`DELETE FROM [TABLE_NAME].[dbo].[JGROUPSPING]`

Oracle databases:

`DELETE FROM "TABLE_NAME"."HA_WRITER"`

`DELETE FROM "TABLE_NAME"."JGROUPSPING"`

PostgreSQL databases:

`DELETE FROM HA_WRITER;`

`DELETE FROM JGROUPSPING;`

Logs

This section provides information about OMi logs.

Learn More

This section includes:

- "OMi Logs - Overview" below

- "Log File Locations" below

- "Log File Locations in a Distributed Deployment" on the next page

- "Log Severity Levels" on the next page

- "Log File Size and Automatic Archiving" on the next page

- "Application Server Log" on page 18

- "*.hprof Files" on page 18

- "Debug Trace Logging for an Event" on page 18

- "Logging Administrator Tool" on page 19

OMi Logs - Overview

OMi records the procedures and actions performed by the various components in log files. The log files are usually designed to aid Software Support when OMi does not perform as expected.

You can view log files with any text editor.

Log File Locations

Most log files are located in the *<OMi_HOME>*/log directory and in subdirectories organized by component.

Log file properties are defined in files in the following directory and its subdirectories: *<OMi_HOME>*/conf/core/Tools/log4j.

Log File Locations in a Distributed Deployment

In single-server installations, all OMi servers and their logs reside on the same machine. In the case of a distributed deployment of the servers among several machines, logs for a particular server are usually saved on the computer on which the server is installed. However, if it is necessary for you to inspect logs, you should do so on all machines.

When comparing logs on client machines with those on the OMi server machines, keep in mind that the date and time recorded in a log are recorded from the machine on which the log was produced. It follows that if there is a time difference between the server and client machines, the same event is recorded by each machine with a different time stamp.

Log Severity Levels

Each log is configured so that the information it records corresponds to a certain severity threshold. Because the various logs are used to keep track of different information, each is preset to an appropriate default level. For details on changing the log level, see "How to Change Log Levels" on page 19.

Typical log levels are listed below from narrowest to widest scope:

- **Error.** The log records only events that adversely affect the immediate functioning of OMi. When a malfunction occurs, you can check if Error messages were logged and inspect their content to trace the source of the failure.

- **Warning.** The log's scope includes, in addition to Error-level events, problems for which OMi is currently able to compensate and incidents that should be noted to prevent possible future malfunctions.

- **Info.** The log records all activity. Most of the information is routine and the log file quickly fills up.

- **Debug.** This level is used by Software Support when troubleshooting problems.

The default severity threshold level for log files differs per log, but is generally set to either **Warning** or **Error**.

> **Note:** The names of the different log levels may vary slightly on different servers and for different procedures. For example, **Info** may be referred to as **Always logged** or **Flow**.

Log File Size and Automatic Archiving

A size limit is set for each type of log file. When a file reaches this limit, it is renamed and becomes an

archived log. A new active log file is then created.

For many logs, you can configure the number of archived log files that are saved. When a file reaches its size limit, it is renamed with the numbered extension **1** (**log.1**). If there is currently an archived log with the extension **1** (**log.1**), it is renamed to **log.2**, **log.2** becomes **log.3**, and so on, until the oldest archived log file (with the number corresponding to the maximum number of files to be saved) is permanently deleted.

The maximum file size and the number of archived log files are defined in the log properties files located in `<OMi_HOME>/conf/core/Tools/log4j`. An example is:

```
def.file.max.size=2000KB
def.files.backup.count=10
```

Application Server Log

The log file `<OMi_HOME>/log/jboss7_boot.log` logs start-up activities including running the application server process, deployment, and start-up status, as well as the number of busy ports.

*.hprof Files

*.hprof files contain a dump heap of an OMi process's data structures. These files are generated by the Java virtual machine (JVM) if a process fails with a Java Out Of Heap Memory condition.

You are rarely aware of a problem because the problematic process restarts automatically after a failure. The existence of many *.hprof files indicates that there may be a problem in one of the OMi components, and its contents should be analyzed to determine the problem.

If you run out of disk space, you can delete the*.hprof files.

Debug Trace Logging for an Event

You can enable debug trace logging for an event by setting the custom attribute `__TRACE__`. It may have any severity level. By default, the event flow trace logging level is set to `INFO`. Only events with the custom attribute `__TRACE__` set are logged to the flow trace log files. To enable flow tracing for all events, set the flow trace log level to `DEBUG`.

You can enable trace logging on the OM server or agent sending the event, or you can add the trace to the event at a later time. Whenever this custom attribute is enabled on an event, trace output for this event appears in the following trace logs:

- OMi data processing server: `log/opr-backend/opr-flowtrace-backend.log`

- OMi gateway server: `log/wde/opr-gateway-flowtrace.log`

If you want support to look at the trace, click the **export to log4j** button to save it.

Logging Administrator Tool

The Logging Administrator tool enables you to temporarily modify the level of details displayed in OMi logs, as well as create custom logs. You can access the OMi Logging Administrator Tool from the following URL:

`http://<OMi Gateway FQDN>/topaz/logAdminBsm.jsp`

Tasks

How to Delete OMi Logs

You can delete all OMi log files under `/opt/HB/BSM/log` and *.hprof files under `/opt/HP/OMi/bin` after stopping OMi. This enables you to free up disk space. However, from a support perspective, it may be useful to save older logs.

> **Caution:** Do not delete the log directory.

1. Stop OMi.

2. Delete all files under `<OMi_HOME>/log`. Do not delete the log directory.

3. Delete all .hprof files under `/opt/HP/BSM/bin/`.

> **Note:** Some files cannot be deleted, because they are owned by Apache.

How to Change Log Levels

If requested by Software Support, you may have to change the severity threshold level in a log, for example, to a debug level.

1. Open the log properties file in a text editor. Log file properties are defined in files in the following directory: *<OMi_HOME>*`/conf/core/Tools/log4j`.

2. Locate the **loglevel** parameter. For example,

    `loglevel=ERROR`

3. Change the level to the required level. For example,

    `loglevel=DEBUG`

4. Save the file.

Export My Workspace content to another system

To move My Workspace content between OMi systems, perform the following steps:

1. On the source gateway system, open the JMX console: `http(s)://localhost:29000`. Log in to the JMX console using the appropriate credentials. For more information on the JMX console, see JMX Console.

2. Invoke `Foundations:service=UIMDataLoader`.

3. Invoke `exportAllData` and specify the following:

   a. The path to the directory where OMi should save the configuration files for the exported data.

   b. `customerID = 1`

   > **Note:** You can also export a specific type of content, rather than all content, by using the `exportEventsMetaData` method for events, the `exportComponentsMetaData` method for components, or the `exportPagesData` method for pages.

4. Go to the directory you specified in the previous step and find the following files:

   EventsMetaData_<*date*>_<*timestamp*>.uim.xml

   ComponentsMetaData_<*date*>_<*timestamp*>.uim.xml

   PagesData_<*date*>_<*timestamp*>.uim.xml

5. Copy these files to the target system and save them under <*OMi_Home*>`/conf/uimashup/import/toload` in the corresponding folder: Events, Components, or Pages.

6. On the target gateway system, open the JMX console: `http(s)://localhost:29000`. Log in to the JMX console using the appropriate credentials.

7. Invoke `Foundations:service=UIMDataLoader`.

8. Invoke `loadAllData` and specify `customerID = 1`.

   > **Note:** If you only exported a specific type of content, use `loadEventsMetaData`, `loadComponentsMetaData`, or `loadPagesData`.

9. Log in to OMi and go to the My Workspace area. All content exported from the source system

should now be available in the target system. If everything was imported correctly, the files were moved from the `toload` to the `loaded` folder and there is nothing in the `errors` folder.

Common keyboard shortcuts

You can use keyboard shortcuts to facilitate working with certain OMi user interfaces.

The following table lists common shortcuts of HTML5 OMi UIs. Each shortcut's functionality is specific to the listed UI context. Not all shortcuts might apply to all HTML5 UIs.

> **Note:** These shortcuts do not apply to Java-based UIs.

Keyboard shortcut	Context	Description
Enter	Controls	Select or activate an UI control that is focused. For example, you can open the Edit Key Performance Indicator panel if the focus is on the Edit button.
Spacebar	Switches	Select or unselect a check button, or toggle an on/off switch.
Up Arrow or Down Arrow	Radio buttons	Switch the focus from one radio button to another.
Arrow keys		Depending on the context, the arrow keys behave differently. In general, use the arrow keys to navigate between items of equal semantic in an intuitive way. For example, when using the Top View component, use the keys to move from one CI to another.
Shift+Home or Shift+End	Text fields	Select the complete text.

Send documentation feedback

If you have comments about this document, you can contact the documentation team by email. If an email client is configured on this system, click the link above and an email window opens with the following information in the subject line:

Feedback on Troubleshooting (Operations Manager i 10.63)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to ovdoc-asm@hpe.com.

We appreciate your feedback!