Business Value Dashboard

Software Version: 10.63

Troubleshooting Guide

Hewlett Packard Enterprise

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Troubleshooting Guide

This guide includes:

Enabling additional logging

BVD log files are located on the configured NFS share, in the directory `bvd/var/bvd/log`.

Available log types are `access`, `audit`, `bvd` and `error`. The logs follow the naming schema `<log type>-<pod name>.log`

- The `access` logs contain information about all requests processed by the server (for example HTML files or graphics). This data can then be statistically analyzed and summarized by another program.

- The `audit` logs contain information about successful and failed user logins.

- The `bvd` logs contain debug information for more detailed troubleshooting.

By default, BVD only logs errors and auditing information.

You can enable additional logging for the BVD receiver, controller, and/or web server. To enable additional logging, complete the following steps:

> **Caution:** Enabling access logging for the receiver will also log the API keys. This might impact the security of BVD as every user with access to the log files will be able to see the API keys.

1. Launch the Management Portal from a supported web browser:

   https://*<external_access_host>*:5443

   <external_access_host> is the fully qualified domain name of the host which you specified as `EXTERNAL_ACCESS_HOST` in the `install.properties` file during the Container Deployment Foundation installation. Usually, this is the master node's FQDN.

2. Access **RESOURCES** > ***<OpsBridge namespace>*** > **Workloads** > **Deployments**

3. For either `bvd-receiver-deployment` or `bvd-www-deployment`, click ⋮ **Actions** > **View/edit YAML**.

4. In the search field of the new window, type `debug` to find the DEBUG entry.

5. Set the value of the DEBUG variable to the log type you are interested in, for example `bvd:error*`

6. Click **UPDATE**.

If BVD is installed with the internal PostgreSQL, you can also view the Redis and PostgreSQL logs using kubectl:

```
kubectl get pods -n <opsbridge namespace>
kubectl logs <pod name> -c bvd-redis -n <opsbridge namespace>
kubectl logs <pod name> -c bvd-postgres -n <opsbridge namespace>
```

Note that directly after the installation of BVD some errors are expected to be logged by the BVD processes and PostgreSQL. They should stop after a few minutes, once BVD is up and running correctly.

Browser limitations

- **Internet Explorer only:** Uploading a dashboard locks the SVG file on disk

  In Internet Explorer 10 or 11 browsers, the upload of SVG files locks the files in the file system. For example, after uploading an SVG file in Internet Explorer, when you then click **Apply** or **Save** in the Dashboards page and try to re-export to the file from Visio, the Visio changes are not saved to the SVG file.

  This is a known problem in Internet Explorer 10 and 11:
  https://connect.microsoft.com/IE/feedback/details/817183/ie10-and-ie11-keep-files-locked-after-uploading

  Workaround: After saving the uploaded dashboard, refresh the Dashboards page, for example by pressing **F5**.

- **Chrome only:** It is not possible to download a dashboard that includes a picture

  In Chrome browsers, downloading a dashboard from the **Administration > Dashboards** page is not working. This affects dashboards that include images of more than 2MB.

  Workaround: Chrome has a limitation of 2MB for data URI downloads:
  https://code.google.com/p/chromium/issues/detail?id=44820

Verifying metrics forwarding from OMi to BVD

Metrics Forwarding from Performance Graphing in OMi 9.2x and 10.0x:

1. In OMi, open Infrastructure Settings:

    Admin > Platform > Setup and Maintenance > Infrastructure Settings

    In the **Applications** list, select **Performance Graphing**.

2. Set the option **Trace Level** to 2.

3. Access the `ovpmtrace.0.txt` file available at the following location:

    Windows: `%ovdatadir%\shared\server\log`

    Linux: `/var/opt/OV/shared/server/log`

4. The log file contains trace messages that indicate that Performance Graphing is forwarding the data to the endpoint.

    The following are samples from the log file:

    ```
    com.hp.pm.core.configuration.PostDataTask:run() -> JSON data to post ...
    com.hp.pm.core.configuration.PostDataTask:postDashboardData() -> Post data  to
    service dashboard endpoint is success
    ```

Metrics Forwarding from Performance Dashboard in OMi 10.1x:

1. In OMi, open Infrastructure Settings:

    Administration > Setup and Maintenance > Infrastructure Settings

    In the **Applications** list, select **Performance Dashboard**.

2. Access the `bvd.log` file available at the following location:

    Windows: `<OMi_HOME>\log\pmi`

    Linux: `/opt/HP/BSM/log/pmi`

    The log file contains trace messages that indicate that Performance Dashboard is forwarding the data to the endpoint.

    The following are samples (trace level set to INFO) from the log file:

    ```
    com.hp.pm.core.configuration.bvd.PostDataTask:postDashboardData()
    -> BVD - Post data to endpoint is success
    ```

3. To enable debugging or tracing, edit the `log4j.properties` file and set all `log4j.category` variables as `DEBUG` or `TRACE`:

    Windows: `%TOPAZ_HOME%\conf\core\Tools\log4j\pmi\log4j.properties`

Linux: `$TOPAZ_HOME/conf/core/Tools/log4j/pmi/log4j.properties`

The Performance Dashboard log file is available at the following location:

Windows: `%TOPAZ_HOME%\log\pmi\pmi.log`

Linux: `$TOPAZ_HOME/log/pmi/pmi.log`

The Performance Dashboard - BVD integration log file is available at the following location:

Windows: `%TOPAZ_HOME%\log\pmi\bvd.log`

Linux: `$TOPAZ_HOME/log/pmi/bvd.log`

Notification messages

BVD displays notification messages if there are issues with the created dashboards. The following sections describe the messages and solutions.

The data received from the server does not contain {0} but {1} values

Widgets: Bar Chart, Donut Chart

The chart is configured to display {0} values. However, the data sent by the server only contains {1} values. Check the data sent by the server and make sure that it contains all required data fields. Open 🔧 **Administration > Dashboards** to verify the configured data fields and the data sent by the server in the data channel selector.

There is no valid data channel set

Widgets: Bar Chart, Status Color Group, Donut Chart, Feed, Status Images, Sparkline / Multiple Area Chart, Text Value, Status Visibility Group

There is no data channel set for this widget. Therefore it will not receive any data to display. Open 🔧 **Administration > Dashboards** to configure a data channel for the widget.

There are no 'path' or 'rect' elements for the dashboard item '{0}'

Widgets: Status Color Group

The Status Color Group is coloring lines and areas of the grouped shapes. If these do not contain lines and areas, coloring will fail with this error. Open the dashboard in Visio and make sure that valid shapes are grouped with this Status Color Group.

The property '{0}' used in the coloring rule is not part of the data. Please check the syntax of the rule. (Dashboard item '{1}')

Widgets: All widgets with coloring/image selection rules

Open 🔧 **Administration > Dashboards** and verify the rule's syntax: the rule should only use data fields that are included in the data sent by the server.

The coloring rule '{0}' is not valid. Please check the syntax of the rule. (Dashboard item '{1}')

Widgets: All widgets with coloring/image selection rules

Open **Administration > Dashboards** and verify that the rule adheres to the format described in Coloring Rule.

The data received from the server is missing either the 'link' or the 'title' field (Feed '{0}')

Widgets: Feed

Make sure that the data sent by the server contains the data fields "link" and "title".

The data received from the server does not contain a status (Status images '{0}')

Widgets: Status Image

The status field configured in **Administration> Dashboards** is not part of the data sent by the server. Make sure that the server sends the correct data or the correct status field is chosen.

The data received from the server does not contain a property called '{0}' (Spark line '{1}')

Widgets: Sparkline / Multiple Area Chart

The data field configured in **Administration> Dashboards** is not part of the data sent by the server. Make sure that the server sends the correct data or the correct data field is chosen.

There is no valid URL for the dashboard item '{0}'

Widgets: Web Page

There is no URL set for this widget. Therefore it will not display any data. Open **Administration> Dashboards** to configure a URL for the dashboard item.

The property '{0}' used in the visibility rule is not part of the data. Please check the syntax of the rule. (Dashboard item '{1}')

Widgets: All widgets with visibility rules

Open 🔧 **Administration> Dashboards** and verify the rule's syntax: the rule should only use data fields that are included in the data sent by the server.

The visibility rule '{0}' is not valid. Please check the syntax of the rule. (Dashboard item '{1}')

Widgets: All widgets with visibility rules

Open 🔧 **Administration> Dashboards** and verify that the rule adheres to the format described in Visibility Rule.

Unable to calculate a color with the data received from the server (Dashboard item '{0}')

Widgets: All widgets with coloring rules

The value sent by the server, together with the provided coloring rule, did not result in a color. Open 🔧 **Administration> Dashboards** to verify the accuracy of your coloring rule and provide a default color as the last entry. For details on defining coloring rules, see Coloring Rule.

Widget type '{0}' is not supported

Widgets: Widget Group

The widget type you placed in your Widget Group is not supported. Not supported widget types are Feed and Web Page widgets.
Edit the dashboard or template in Visio to make sure that a supported widget type has been grouped with the widget group. For more information, see Group Widgets.

Dashboards and Templates

Find solutions and workarounds for dashboard or template limitations that are not covered by the notification messages. For details, see "Notification messages" on page 8.

Visio produces blank SVG files or shapes are missing in the export

Description

When editing a dashboard in Visio, the dashboard is blank or shapes are missing after it is exported as SVG file.

Solution

Visio supports styles for shapes which the SVG standard does not. Having applied one of these styles to a shape can lead to missing shapes or empty dashboards after exporting to SVG. This happens, for example, to all shapes with shadows.

Remove the unsupported style or review the Microsoft Visio documentation for possible workarounds.

Template: values are not available in the instances' Variables section

Description

After uploading a template and sending the required JSON data to BVD, the instances' Variables drop-down list displays the dimension name, but not the available values.

> **Note:** This limitation has been fixed for BVD versions 10.62 and later.

Solution

The tags and dims are not saved for widgets that contain variables. Do the following to reselect the data channel:

1. In the Dashboards menu, hover over the template that does not display the values and click ✏ **Edit**.

2. In the Template Manager, click ✏ **Edit** in the left pane.

3. Select the widget that should display the values of the dimension you want to use as variable for your instances.

4. On the right side, select the corresponding data channel from the drop-down list and click the dimension you want to use as variable. The dimension is highlighted.

5. Click **Save**.

6. In the Template Manager, select any of your instances. The Variable section now lists the available values of your variables. Assign them as intended and click **Save**.

Dashboard loading crashes/blocks browser

Description

When sending a huge amount of data to a data channel in a high frequency, the loading of a dashboard containing multiple widgets with this data channel blocks or even crashes the browser.

Solution

This issue can occur due to one of the following mistakes when sending the data to BVD:

- *Sending unneeded data*. If possible, only send data to BVD which is required to display the dashboard. If you send additional data, this data is also sent to the browser during the initial loading and every update of the dashboard. For example, do not send JSON data of several hundred KB to BVD if only one string and a number is displayed.

- *Update frequency not matching widget size*. During the initial loading and every update of a dashboard, Line Chart widgets have to initially load all data required to display that widget. Due to this, you must make sure that the update frequency of the data channel matches the size and time frame of the Line Chart displayed in the dashboard. For example, if a Line Chart is approximately 100 pixels in size, the data channel should not hold more than 100 updates for the given time period. If the period is one month, the channel should not update more often than three times a day. If there are more updates, too much data is transferred between the server and the browser, which might block the browser if multiple MB are reached. As a consequence, the Line Chart becomes unreadable because it is technically impossible to display more data points than pixels available.

Vertica database: replace the self-signed certificate with a CA certificate

When you set up a Vertica database connection in the Data Collector, we highly recommend to use a CA issued TLS certificate instead of a self-signed one. Self-signed certificates are a security risk because they are issued and signed by the same entity. Certificates that are issued by a Certificate Authority (CA) are safer as the entity for which the certificate is issued can be verified by other entities that communicate with it, and vice versa.

You can exchange the self-signed certificate in Vertica with a CA certificate as follows:

1. *Prerequisite*. You must have a CA private key and public certificate ready.

2. Log on to Vertica's Management Console as the administrator.

3. On the home page, click **Settings**.

4. In the left panel, click **SSL certificates**.

5. Click **Browse** to import the new key, and click **Apply** to apply the change.

6. Restart the Management Console.

For more information and additional details, review the Vertica documentation.

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