HP Business Process Monitor Mini-App

For the Android and iOS operating systems

Software Version: 1.0.0

Getting Started Guide

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About the BPM Mini-App

The BSM Business Process Monitor Service (BPM) Mini-App allows you to view synthetic monitoring of business services or applications and to isolate problems and review application status over time.

Key features of the BPM Mini-App include:

- **Application Support Operation:** Quickly isolate problems and pinpoint performance issues.

- **Application SME:** Control which problems are escalated so that experts can focus on the issues that really require their attention.

- **Application Owners:** Display the current health of the application for a selected time frame.

The application provides a high-level health overview of BPM transactions from different BPM locations and an isolation flow to quickly isolate problems and to pinpoint issues.

Supported Devices

The BPM Mini-App has been tested and approved on the following devices:

- Apple Ipad 3.5

- Apple Ipad 4

- Google Nexus 10

- Samsung Galaxy Tab 10.1

Configuring the Data Source

After you have installed the Mini-App, you need to configure data sources:

1. Log into the HP Anywhere Administrator Console as an administrator:
   http://<FQDN of HPA host>:8080/admin/

2. On the **Apps** tab, select **Data Source Configuration** and create a BSM instance with the following values:

   - **HostName:** <FQDN of BSM GW host>

   - **Port:** 8080

   - **Protocol:** http

   - **AuthPolicy:** lwsso
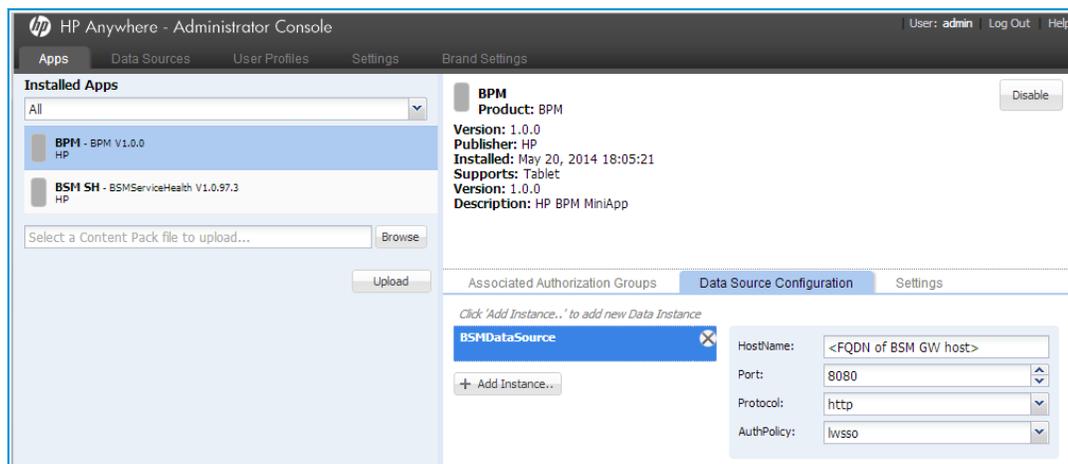
3. On the **Settings** tab, in the List of Categories, select **BPM** and set the **Support offline mode** to **False**.

4. In the List of Categories, select **General Settings**, and under **Single Sign-On Settings**, enter the correct **Init string** value. You can obtain the Init string value from the BSM JMX Console:

   a. Open a browser to the following address:

      http:// <FQDN of BSM GW host>:8080/jmx-console/HtmlAdaptor?action= inspectMBean&name=Topaz%3Aservice%3DLW-SSO+Configuration

      The <FQDN of BSM GW host> must be the same as the HostName entered on the Data Source Configuration tab.

   b. Search for the text **InitString** and copy the string from the Value column.

5. After you have entered the required settings, restart the HPA server.

Overview Page

The Application Overview page is the default page displayed when you open the BPM Mini-App. This page gives you a quick view of the status of all your applications and highlights the most urgent problems for attention.

The page displays the availability and performance status. The status is based on data for the last hour and the applications are listed in the order of severity.

For each application you can tap the following:

- **Availability:** Displays availability data in the most relevant availability report.

- **Performance:** Displays performance data in the most relevant performance report.

- **Application Overview:** Opens the Transaction Overview report which contains an overview of the health of the application. For further information see "Transaction Overview" on the next page. This report is only available if you are working with Diagnostics.

- **Location Isolation:** Opens the Location Isolation report. For further information see "Location Isolation Report" on page 10.

- **Error Log:** Opens the Synthetic Error Log Investigation report. For further information see "Synthetic Error Investigation" on page 16.

Transaction Overview

The Transaction Overview report shows a summary of all transactions and their status over time.

To Access

In the Overview Page, next to an application tap **Application Overview**.
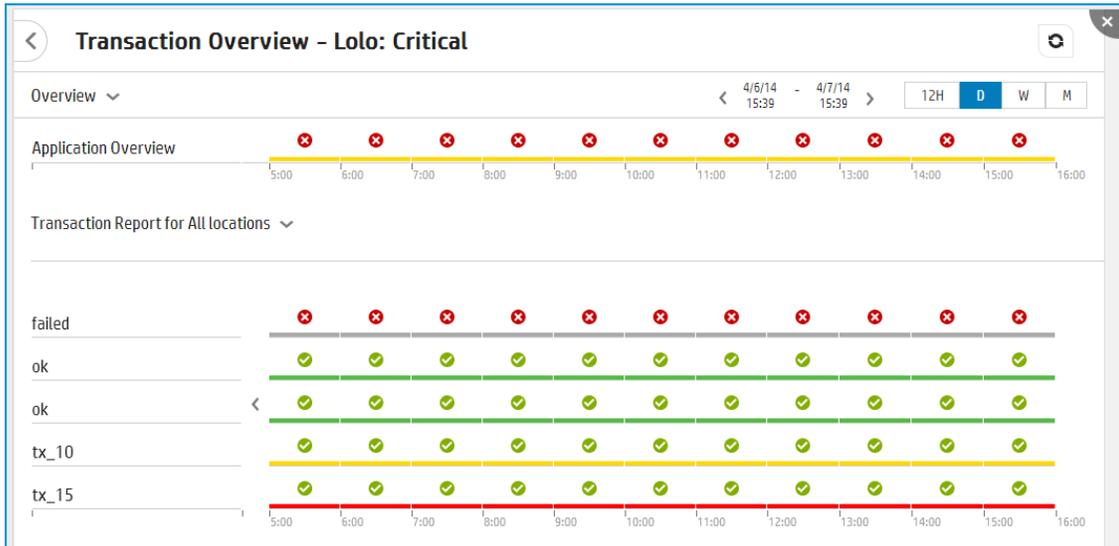
At the top of the page you can select whether to view an *Overview*, or data based on *Availability* or *Performance*.

The Transaction Overview report consists of the following areas:

- **Summary** - A summary of all locations and transactions. The summary is color coded to indicate at which times there were transactions with a status of OK (green), Minor (yellow), or Critical (red); the color represents the location or transaction with the highest severity at that time.

- **Transaction Details** - A list of all transactions. Tap a transaction to view details of each location in the transaction. Tap a location to open the Locations report.

Frequently Asked Questions

How can I change the time scale?

Tap the calendar buttons to change the time scale:

12H	Displays transaction data for the past 12 hours. Tap **<** to view the previous 12 hours. In this view, the report displays data in increments of one hour.
D	Displays transaction data for the past 24 hours. Tap **<** to view the previous 24 hours. In this view, the report displays data in increments of two hours.
W	Displays transaction data for the past seven days, starting at midnight. Tap **<** to view the previous seven days. In this view, the report displays data in increments of one day.
M	Displays transaction data for the past month, starting at midnight. Tap **<** to view the previous month. In this view, the report displays data in increments of one day.

How is status calculated for Availability view?

In Availability view, in the Transaction Detail area, the status is represented by a green (OK) or red (Critical) line. The status is based on a predefined threshold. The status is considered Critical based on the following formula:

Total failures / Total transactions < Percentage Threshold

How is status calculated for Performance view?

In Performance view, a transaction can be colored as follows:

- Gray - No data

- Green - OK

- Yellow - Minor

- Red - Critical

The calculation is a weighted average based on the Performance Threshold.

A transaction consists of several actions. For example, a transaction may ping servers in three different locations, and ping each server four times. This means that the transaction contains 12 actions. Each of these actions is rated as "OK", "Minor", or "Critical". BPM looks at the total number of components marked "OK", "Minor", or "Critical", and calculates the status of the transaction using on the following formula:

((20 * "Number of OK") + (10 * "Number of Minor")) / (Total number of actions)

The result of this formula determines the transaction status as follows:

< 5 = Critical

5 - 15 = Minor

> 15 = OK

Location Isolation Report

The Location Isolation report shows the availability or performance status of an application by location. The locations are sorted by severity and the worst five locations are included in the report's graph by default. You can select additional locations from the list on the left of the graph.

To Access

In the Overview Page, next to an application tap **Location Isolation**.
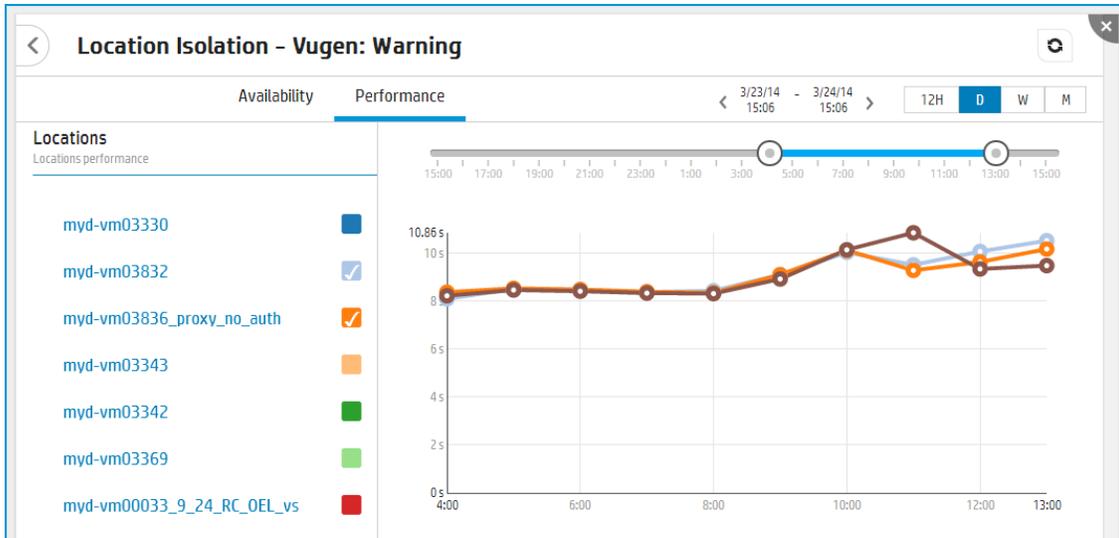
At the top of the page you can select whether to view data based on *Availability* or *Performance*.

By default the report displays the previous 12 hours. Tap the calendar buttons to change the time period (12 hours, day, week, or month). Tap ‹ or › to browse to the previous or following time period.
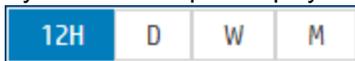
Frequently Asked Questions

What do the Availability and Performance statistics represent?

The Availability and Performance area displays the following values for the displayed time frame:

- **Availability** - The percent of transactions that were successful.

- **Performance** - The percent of transactions that did not have a status of Critical and the average response time.

Transaction Isolation Report

The Transaction Isolation report shows the availability or performance status of an application's transactions, for a specific location. The transactions are sorted by severity and the worst five transactions are included in the report's graph by default. Select additional transactions from the list to include them in the graph.

To Access

In the Location Isolation report, tap on a location.
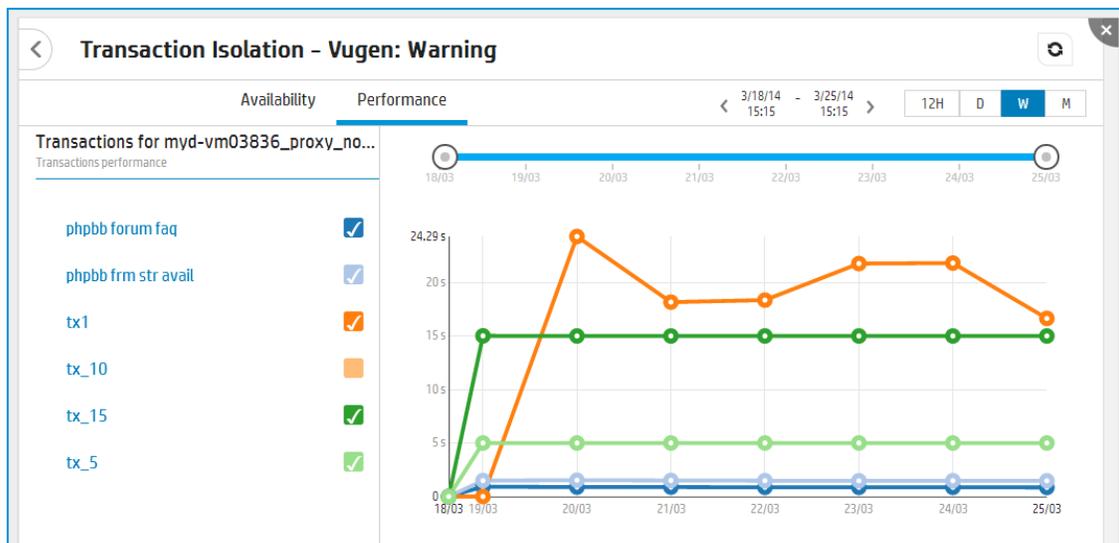
You can view the report for a period of 12 hours, day, week, or month.

In the list of transactions, tap a transaction name to drill down to:

• Synthetic Error Investigation (in Availability view). For further information see "Synthetic Error Investigation" on page 16.

• Synthetic Layer Investigation (in Performance view). For further information see "Synthetic Layer Investigation Report" on the next page.

Synthetic Layer Investigation Report

The Synthetic Layer Investigation report displays a breakdown of average transaction response times (in milliseconds) over time, for the selected time frame. Response times are broken down by retry time, DNS resolution time, connection time, network time to first buffer, server time to first buffer, download time, and client time. If your site uses SSL authentication, SSL handshaking time is also displayed.

To Access

In the Transaction Isolation report, in Performance view, tap on a transaction.

To view a breakdown of details, hover over a bar on the graph.
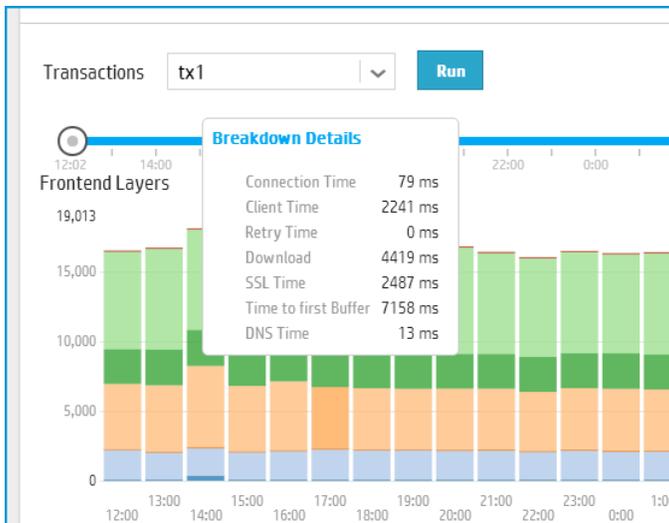
The main transaction breakdown components are as follows:
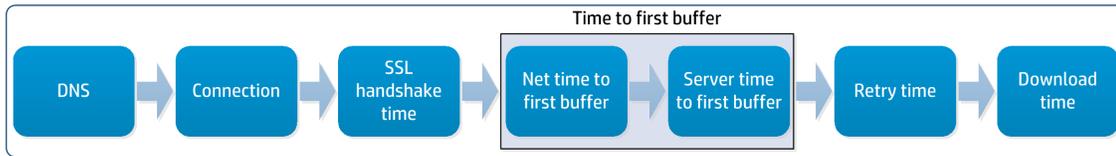
The diagram below illustrates in more detail the relationship between the component's main breakdown categories (shown along the bottom of the diagram) and client/server activity during transaction execution.
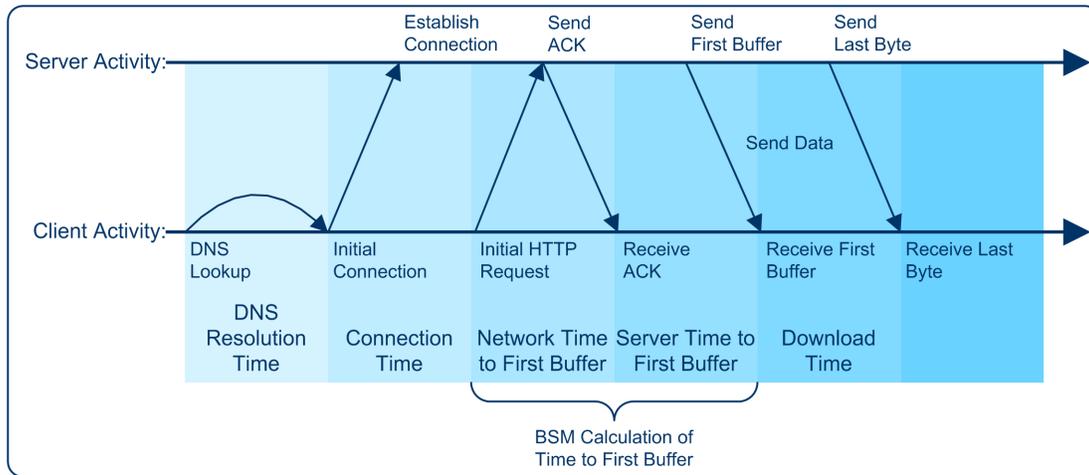
The following table describes the component's breakdown categories. Times are calculated by taking the average of all transaction runs within the specified time period.

Name	Description
DNS Time	Displays the average amount of time needed to resolve the DNS name to an IP address, using the closest DNS server. The DNS Lookup measurement is a good indicator of slow DNS resolution or other problems with the DNS server.
Connection Time	Displays the average amount of time needed to establish an initial connection with the web server performing the transaction. The connection measurement is a good indicator of problems along the network or whether the server is responsive to requests.
SSL Time	Displays the average amount of time taken to establish an SSL connection (includes the client hello, server hello, client public key transfer, server certificate transfer, and other—partially optional—stages). After this point, all the communication between the client and server is encrypted. **Note:** The SSL handshaking measurement is applicable only for HTTPS communications.

Name	Description
Network Time to First Buffer	Displays the average amount of time that passes from the moment the first HTTP request is sent until receipt of ACK. The network measurement is a good indicator of network quality (look at the time/size ratio to calculate download rate).
Server Time to First Buffer	Displays the average amount of time that passes from the receipt of ACK of the initial HTTP request (usually GET) until the first buffer is successfully received back from the web server. Server Time to First Buffer is a good indicator of web server delay. **Note:** Because Server Time to First Buffer is being measured from the client, network time may influence this measurement if there is a change in network performance from the time the initial HTTP request is sent until the time the first buffer is sent.
Retry Time	Displays the overall amount of time that passes from the moment an HTTP request is started until the moment an HTTP or TCP error message is returned. Retry time only relates to HTTP or TCP errors that execute a retry after the error.
Download Time	Displays the time from the receipt of the first buffer until the last byte arrives. Download time is a combination of server and network time, since the server typically sends data over multiple connections, and therefore is usually working while data is being transmitted over the network. For more details, see "Understanding Download Time" below.
Client Time	Displays the average amount of time that passes while a request is delayed on the client machine. Client-related delays can include browser think time, CPU think time, HTML page processing time, time needed to open sockets, application delays caused by heavy applets, and so on. **Note:** Client time is calculated by subtracting all other measured times from the total transaction time.

Note: In certain circumstances, for example, when BPM is using a proxy server, the transaction breakdown mechanism cannot differentiate between *Server Time to First Buffer* and *Network Time to First Buffer*. In these cases, the report displays the time between initial HTTP request and receipt of first buffer as *Time to First Buffer*.

Understanding Download Time

When a BPM running a script communicates with a web server (specified by the URLs in the script), communication is carried out, by default, over four connections simultaneously.

As the web page is retrieved, its various components (images, applets, and so on) travel in data packets from server to client across these multiple connections.

As a result, at any point along the time line after the server sends the first buffer until the client receives the last byte for the page, data packets may be traveling over the network through some of the connections while others are being processed by the server through the remaining connections. The download time in the report represents the sum total of the time when network resources and

server resources are in use at the same time, between the time the client receives the first buffer and the last byte.

Synthetic Error Investigation

This report lists transaction errors.

To Access

Do one of the following:

- In the Overview Page, next to an application tap **Error Log**.

- In the Transaction Isolation report, in Availability view, tap on a transaction.

Tap on an error to view additional information about the error.

We appreciate your feedback!

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