

WebSphere Single Server Plugin

Overview



This plugin allows you to gather single server WebSphere metrics via the SOAP interface.

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|------------------------|---|
| Plug-In Files | com.dynatrace.diagnostics.plugins.jmx.websphere_1.0.0.jar |
| Author | Todd Ellis |
| Versions | Dynatrace 6.0+, WebSphere 7.0+ |
| License | dynaTrace BSD |
| Support Level | Not Supported |
| Release History | 05/XX/15 - v1.0.0 Initial Release |

Collector Configuration:

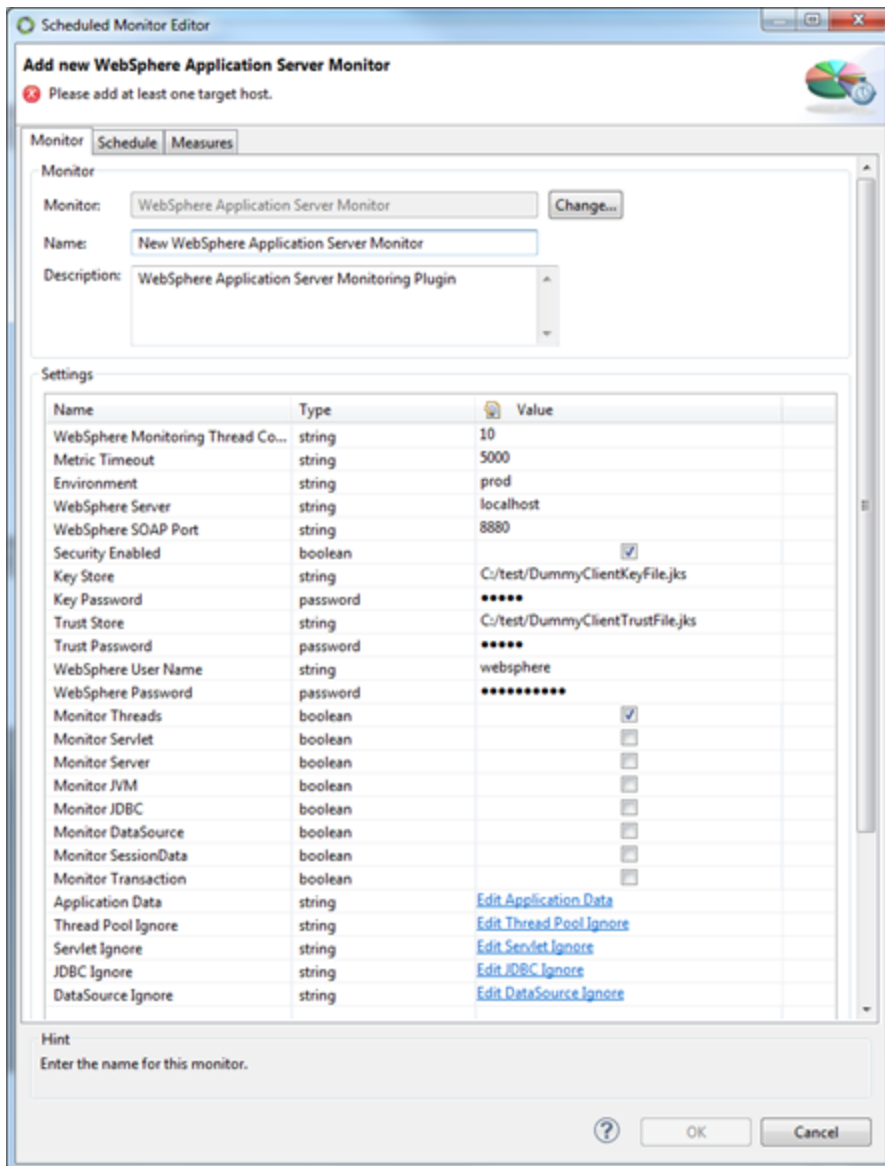
You need to ensure the collector host is not marked as unknown. If it is, when running the plugin, you will get a local host related error. To resolve the issue for Linux:

1. Type hostname (on the collector box in order to get the host name)
2. In /etc/hosts define the hostname from above command)

On Windows, the host file is located: c:\windows\system32\drivers\etc\hosts

Installation and Configuration

1. Import the Plugin into the dynaTrace Server via the dynaTrace Server Settings menu -> Plugins -> Install Plugin. For details how to do this please refer to the dynaTrace documentation: [Plugin Management - Dynatrace Community](#)
2. Navigate to the appropriate System Profile Preferences and create a new WebSphere Application Server Monitor.
3. i. Enter the name for the monitor (eg. environment name).
ii. Fill out the Settings



- a. **WebSphere Monitoring Thread Count** - Number of threads to be used when monitoring the server (1-10)
 - b. **Metric Timeout** - Amount of time (ms) to wait for data
 - c. **Environment** - Name of the Environment
 - d. **WebSphere Server** - WebSphere Server DNS or IP
 - e. **WebSphere SOAP Port** - Port for the Server
 - f. **Security Enabled** - Is security turned on?
 - g. **Key Store** - E.g. C:/test/DummyClientKeyFile.jks - Needs to be on the Collector running the plugin. (.jks or .p12 supported)
 - h. **Key Password** - Default WebAS
 - i. **Trust Store** - E.g. C:/test/DummyClientTrustFile.jks - Needs to be on the Collector running the plugin. **Trust file must be in JKS format, instructions available below.**
 - j. **Trust Password** - Default WebAS
 - k. **WebSphere User Name** - WebSphere User
 - l. **WebSphere Password** - Password for the WebSphere User
 - m. **Monitor X** - Enable X Monitoring with checkmarks
 - n. **Application Data** - List the Applications you do not want session data (separate with newline)
 - o. **Thread Pool Ignore** - List the Thread Pools you do not want to monitor (separate with newline)
 - p. **Servlet Ignore** - List the Servlets you do not want to monitor (separate with newline)
 - q. **JDBC Ignore** - List the JDBC resources you do not want to monitor (separate with newline)
 - r. **DataSource Ignore** - List the DataSource you do not want to monitor (separate with newline)
4. Add a host for the monitor (WebSphere Server DNS or IP)
 5. Under the Schedule tab, configure the monitoring interval and dynaTrace Collector
 6. Under the Measures tab, configure the Thresholds. NOTE: For Dynamic Thresholds (different thresholds per server), refer to the [Extend](#)

d EMail Action Plugin.

7. Confirm data collection by right clicking the server name under Monitors, then navigating to details.

How to convert from PKCS12 to JKS format

NOTE: If a different key/trust store is being added to the plugin configuration, the Dynatrace Collector executing the WebSphere Application Server Monitor must be restarted.

1. Open IBM Key Management
 - **On AIX or Solaris**, type ikeyman on the command line.
 - **On Windows**, go to the start menu and select Start Key Management Utility. Or alternatively, navigate to install_dir\java\jre\bin\ikeyman.exe.
2. Select **Key Database File** from the main UI, then select **Open**.
3. In the **Open** dialog box, select **PKCS12** for the **Key database type**, then **Browse...** to select a file. Click **OK**.
4. In the **Password Prompt** dialog box, input the key/trust store password. Click **OK**.
5. Select **Key Database File** from the main UI, then select **Save As...**
6. In the **New** dialog box, select **JKS** for the **Key database type**, then **Browse...** to select the file name and location. Click **OK**.
7. In the **Password Prompt** dialog box, input the key/trust store password for the new file. Click **OK**.

Updating the Plugin

NOTE: The following steps should be taken to ensure that the Collector is running the correct plugin revision. A restart of the Collector is [highly recommended](#).

1. Open the **System Profile Preferences**
 - a. Navigate to the **Monitors** tab in the left pane.
 - b. Select the plugin Monitor and click on the **Suspend** button.
 - c. Click **OK** to confirm the changes.
2. Open the **dynatrace Server Settings**
 - a. Navigate to the **Plugins** tab in the left pane.
 - b. Select the old version of the plugin under **Installed Plugins** and click on the **Delete** button.
 - c. Click on the **Install Plugin...** button and upload the new revision of the plugin. Click **Open**, then **Apply**.
 - d. Navigate to the **Collectors** tab in the left pane.
 - e. Select the Collector executing the plugin and click on the **Restart** button.
 - f. Click **OK** to confirm the changes.
3. Open the **System Profile Preferences**
 - a. Navigate to the **Monitors** tab in the left pane.
 - b. Select the plugin Monitor and click on the **Resume** button.
 - c. Click **OK** to confirm the changes.

Usage

The out-of-the-box WebSphere Monitoring dashboard can be modified with the WebSphere Single Server Plugin metrics to provide details of each server instead of aggregated metrics of the environment.

Measures Available:

WebSphere Application Data Group

- High Water Mark
- Integral
- Low Water Mark
- Sessions Current

WebSphere Connection Group

- Connection Status
- WebSphere Monitor Time

WebSphere DataSource Group

- DataSource Status

WebSphere JDBC Group

- Free Pool Current
- Free Pool High
- Free Pool Integral
- Free Pool Lower
- Free Pool Size Low

- Free Pool Upper
- JDBC Close Count
- JDBC Create Count
- Percent Used Current
- Percent Used High
- Percent Used Integral
- Percent Used Low
- Pool Size Current
- Pool Size High
- Pool Size Integral
- Pool Size Low
- Pool Size Lower Bound
- Pool Size Upper
- Use Time
- Use Time Average
- Use Time Average Count
- Use Time Average Max
- Use Time Average Min
- Use Time Average SumSq
- Use Time Average Total
- Use Time Count
- Use Time Max
- Use Time Min
- Use Time SumSq
- Use Time Total
- Wait Time Count
- Wait Time Max
- Wait Time Min
- Wait Time SumSq
- Wait Time Total
- Waiting Thread Current
- Waiting Thread High
- Waiting Thread Integral
- Waiting Thread Low

WebSphere JVM Group

- JVM CPU Usage
- JVM Current
- JVM High
- JVM Integral
- JVM Low
- JVM Lower Bound
- JVM Upper Bound
- JVM Uptime
- JVM Used Memory

WebSphere Server Group

- Node Status

WebSphere Servlet Group

- Average Statistic Avg Count
- Average Statistic Avg Max
- Average Statistic Avg Min
- Average Statistic Avg Statistic
- Average Statistic Avg Sum Sq
- Average Statistic Avg Total
- Time Statistic Avg Count
- Time Statistic Avg Max
- Time Statistic Avg Min
- Time Statistic Avg Statistic
- Time Statistic Avg Sum Sq
- Time Statistic Avg Total
- Total Request Count

WebSphere Thread Group

- Thread Active Count
- Thread Active Count High
- Thread Active Count Low
- Thread Pool Size High
- Thread Pool Size Low

- Thread Pool Size Lower
- Thread Pool Size Upper

WebSphere Transaction Group

- Active Transactions Count
- Transactions Committed Count
- Transactions RolledBack Count