OMi Management Pack for TIBCO

Software Version: 1.00

Operations Manager i for Linux and Windows® operating systems

User Guide

Document Release Date: April 2017

Software Release Date: August 2016

Hewlett Packard Enterprise

Legal Notices

Warranty

The only warranties for Hewlett Packard Enterprise 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. Hewlett Packard Enterprise 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. Valid license from Hewlett Packard Enterprise 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

Trademark Notices

Adobe® is a trademark of Adobe Systems Incorporated.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

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.hpe.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 HPE Software Support site at: https://softwaresupport.hpe.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 HPE Support site or click **Create an Account** on the HPE Passport login page.

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

HPE 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.hpe.com/km/KM01702731.

Contents

Chapter 1: OMi Management Pack for TIBCO

The HPE OMi Management Pack for TIBCO (OMi MP for TIBCO) works with the Operations Manager i (OMi) and enables you to monitor TIBCO infrastructure components running in your environment. OMi MP for TIBCO monitors TIBCO Rendezvous (RV), Enterprise Messaging Service (EMS), TIBCO ActiveMatrix Business Work (BW), TIBCO Hawk Agent, and LogFiles. OMi MP for TIBCO uses the TIBCO Hawk Java application programming interface (API) for data collection.

The OMi MP for TIBCO includes Health Indicators (HIs) and Event Type Indicators (ETIs) that analyze the events that occur in the TIBCO environment and report the health status. It also provides out-of-the-box (OOTB) Management Templates and Aspects to monitor the availability, health, and performance of the TIBCO components. OMi MP for TIBCO supports instance-based deployment and configuration.

Key Features:

- Custom metrics are defined with the help of User Defined Aspects.
- Remote log file monitoring for EMS and RV.

The Management Template or Aspects can be seamlessly deployed by administrators for monitoring the TIBCO components in an enterprise environment.

The OMi MP for TIBCO helps you to monitor the following network deployments:

- Standalone
- Domain
- Secure configuration with SSL authentication
- High Availability

Chapter 2: Getting Started

The following section provides information about the tasks required to monitor BW, EMS or RV domain transport in your environment using OMi MP for TIBCO.

Task 1: Adding Nodes to OMi Console

> **Note:** If the domain transport that you want to monitor is already monitored by Smart Plug-in (SPI) for TIBCO, then remove the SPI artifacts and data sources from the managed node hosting the domain transport before proceeding. For more information, see the section *Removing TIBCO SPI* in *HP Operations Smart Plug-in for TIBCO User Guide*.

> **Note:** If the node already exists in the managed node, you can skip this step and proceed to "Task 2: Deploying the TIBCO Configuration Aspect".

Follow these steps to add nodes before you begin monitoring:

1. Open the Monitored Nodes pane from Administration:

   Click **Administration > Setup and Maintenance > Monitored Nodes**.

2. In the **Node Views** pane, click **Predefined Node Filters > Monitored Nodes**. Click  and then click **Computer > <select the OS type>**. The Create New Monitored Nodes dialog box opens.
3. Specify the Primary DNS Name and verify the IP Address.
4. Select the Operating System and Processor Architecture of the node from the drop-down list, and then click **OK**.

The newly created node is saved as a CI instance in RTSM.

> **Note:** The node with HPE Operations Agent must be connected on OMi Server and certificate must be granted.

Task 2: Deploying the TIBCO Configuration Aspect

To discover the TIBCO component CIs on the added managed nodes, you must deploy the TIBCO Configuration Aspect to a Computer CI. The TIBCO Configuration Aspect deployment updates the **TibcoMP_Deployment** View with the discovered TIBCO component instances.

The TIBCO Configuration Aspect deployment discovers the Configuration Item (CIs) of following CITs:

- TibcoAdministrationDomain
- TibcoEmsServer
- TibcoBusinessWorks
- RendezvousDaemon
- TibcoApplication
- HP Operations Agent

Updating the TIBCO_Configuration Policy

The TIBCO Configuration Aspect contains the TIBCO_Configuration policy that must be updated based on your TIBCO domain transport that requires monitoring. Include the updated policy in the Aspect and deploy the latest version of the **TIBCO Configuration** Aspect.

1. Open the Policy Templates pane:

   Click **Administration > Monitoring > Policy Templates**.

2. In the Policy Template Groups pane, expand the **Policy Management** and **Template Groups** trees and click **MP for TIBCO**.

3. In the Policy Template pane, select the **TIBCO_Configuration** policy and click  **Edit Policy Template**. The TIBCO_Configuration - Edit ConfigFile Policy dialog box appears.

4. Click **Policy Data** tab.

5. Remove the hash (#) symbol at the beginning of the following global parameters and enter the

values:

Global parameters	Description	Example
JAVA_PATH	Location of the Java executable.	C:/tibco/tibcojre64/1.6.0/bin/java
JAVA_TOOLS_DIR	Location of the Java tools.jar file.	C:/tibco/tibcojre64/1.6.0/lib
HAWK_DIR	Location of the TIBCO Hawk install directory. If managed node is a proxy node, then make sure that the Hawk Agent is of the latest version.	C:/tibco/hawk/4.9
RV_DIR	Location of the TIBCO RV install directory.	C:/tibco/tibrv/8.3
EMS_DIR	If EMS is used as domain transport, then enter the EMS install directory.	C:/tibco/ems/6.1

6. Remove the hash (#) symbol at the beginning of the following parameters and enter the values:

Hawk Parameters	Description	Example
HAWK_DOMAIN_ID	Hawk agent domain name.	Admin
EXCLUDE_HAWKAGENTS	Hawk agents that must be excluded from discovery and collection. To exclude multiple agents, separate it using commas (,). By default, the parameter is set to none.	EXCLUDE_HAWKAGENTS=btovm812,btovm12
INCLUDE_HAWKAGENTS	Hawk agents that must be included from discovery and collection. To include multiple agents, separate it using commas (,). By default, the parameter is set to all.	INCLUDE_HAWKAGENTS=hawkagent1,hawkagent2
EXCLUDE_MICROAGENTS	Micro agents that must be excluded from discovery and collection. To exclude multiple agents, separate it using commas (,). By default, the parameter is	EXCLUDE_MICROAGENTS=Process,System

Hawk Parameters	Description	Example
	set to none.	
INCLUDE_ MICROAGENTS	Micro agents that must be included from discovery and collection. To include multiple agents, separate it using commas (,). By default, the parameter is set to all.	INCLUDE_MICROAGENTS=JMS_ Controller (tcp://localhost:7222), TIBCO Rendezvous

7. Based on the domain transport, provide values for the parameters:
   - RV is used as the domain transport.

     Remove the hash (#) symbol at the beginning of the following parameters and enter the values:

Global parameters	Description	Example
HAWK_SERVICE	Port containing the RV services for monitoring.	7474
HAWK_NETWORK	Network used.	;
HAWK_DAEMON	Security protocol used for communication. If SSL is used, you must set additional parameters.	7474

   - EMS is used as the domain transport.

     Remove the hash (#) symbol at the beginning of the following parameters and enter the values:

Global parameters	Description	Example
EMS_URL	Fully qualified domain URL of the EMS domain transport.	For tcp: EMS_ URL=tcp://x86vm455:7222 For ssl: EMS_ URL=ssl://x86vm455:7222 If there is a fault tolerance setup configured for EMS domain you need to set the EMS url as: EMS_URL =(tcp|ssl)://(hostname1):(port),(tcp|ssl)://

Global parameters	Description	Example
		(hostname2):(port), (tcp|ssl):// (hostname3):(port) and so on. in this instance, hostname1 is the primary EMS. hostname2 and hostname3 are secondary EMS.
EMS_AUTH_ ENABLED	If authentication is enabled on EMS domain transport server, then set the parameter to **TRUE**. If authentication is disabled on EMS domain transport server, then set the parameter to **FALSE**.	

- EMS is used as the domain transport and SSL is enabled.

  Remove the hash (#) symbol at the beginning of the following parameters and enter the values:

Global parameters	Example
SSL_TRACE	TRUE|FALSE
SSL_VENDOR	j2se-default
SSL_VERIFY_HOST	TRUE|FALSE
Multiple trusted certificate	
SSL_TRUSTED	C:\tibco\ems\samples\certs\server_root_ cert.pem
SSL_VERIFY_HOSTNAME	TRUE|FALSE
SSL_EXPECTED_HOSTNAME	Expected name of the CN field of the server certificates.
SSL_IDENTITY	C:\tibco\ems\samples\certs\client_ identity.p12
SSL_PRIVATE_KEY	C:\tibco\ems\samples\certs\client_ identity.p12

Global parameters	Example
List of CIPHERS	
SSL_CIPHERS	-ALL:+RC4-MD5:+DES-CBC-SHA:<DES-CBC3-SHA

8. Click **Save and Close**.

The version of the TIBCO_Configuration policy is increased by 0.1.

> **Note:** To monitor multiple domains, copy and paste the <config> block for each domain in the TIBCO_Configuration policy. If n domains have to be monitored, there must be n <config> blocks that is one <config> block for each domain in the TIBCO_Configuration policy.

Deploying TIBCO Configuration Aspect

The TIBCO Configuration Aspect contains policies that deploys instrumentation, creates data sources, discovers CIs, and define schedulers for the metric collection.

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:

   Click **Configuration Folders > TIBCO Application Management > Aspects**.

3. In the Management Templates & Aspects pane, select the **TIBCO Configuration** Aspect and click  . The TIBCO Configuration: Edit Aspect dialog box appears.

4. In the Policy Template tab, select the version of **TIBCO_Configuration** policy that contains the required TIBCO environment settings. Click **OK**. The version of the Aspect is increased by 0.1.

5. In the Management Templates & Aspects pane, follow one of the below methods to assign and deploy the Aspect:

   - Select the latest version of **TIBCO Configuration** Aspect, and then click  .
   - Right-click the latest version of **TIBCO Configuration** Aspect, and then click **Assign and Deploy Item**.

     The Assign and Deploy wizard appears.

6. In the **Configuration Item** tab, select the required managed node CI and then click **Next**.

7. In the **Required Parameters** tab, to enter value for the required parameters follow these steps:
   a. Select the **HAWK_DOMAIN_ID** parameter in the list, and then click  . The Edit dialog box opens.
   b. Click Value, specify the value, and then click **OK**.
   c. Click **Next**.
8. *(Optional).* In the **Parameter Summary** tab, you can change the default values of the parameters. To change the default values of the parameters, follow these steps:

   > **Note:** In the **Parameter Summary** tab, you can override the default values of any parameter. You can specify a value for each parameter at the Management Template level. By default, parameters defined as expert parameters are not displayed. To display expert parameters, click  **Show Expert Parameters**.

   a. Double-click the *HAWK_DOMAIN_ID* parameter and then click  . The Edit Instance Parameter dialog box opens.
   b. Select the *EMS_USERNAME* parameter and then click  . The Edit Instance Parameter dialog box opens.
   c. Click Value, specify the value, and then click **OK**.
   d. Select the *EMS_PASSWORD* parameter and then click  . The Edit Instance Parameter dialog box opens.
   e. Click Value, specify the value, and then click **OK**.
   f. Select the *EMS_SSL_PASSWORD* parameter and then click  . The Edit Instance Parameter dialog box opens.
   g. Click Value, specify the value, and then click **OK**.
   h. If more than one domain is monitored, then add new domain parameters in the Edit Instance Parameter dialog box by following these steps:
      i. In the Instance Value pane, click  . The Edit Parameter dialog box opens.
      ii. Provide the **HAWK_DOMAIN_ID** and click **OK**.
      iii. Edit the value of *EMS_USERNAME*, *EMS_PASSWORD*, and *EMS_SSL_PASSWORD* parameters corresponding to the new domain.

      > **Note:** If n domains have to be monitored, there must be n domain parameters that is one

> set of parameters for each domain in the TIBCO_Configuration policy.

i. Click **OK**.

j. Click **Next**.

9. *(Optional).* If you do not want to enable the assignment immediately, clear the **Enable Assignment(s)** check box.

   You can then enable the assignment later using the Assignments & Tuning pane.

10. Click **Finish**.

> **Note:** After the TIBCO Configuration Aspect is deployed, the following message appears: `Assignment and deployment jobs created`. To check the status of the deployment job, go to **Administration > Monitoring > Deployment Jobs**.

Task 3: Verifying Discovery

After you deploy the TIBCO Configuration Aspect, you must verify if the CIs are populated in the View Explorer.

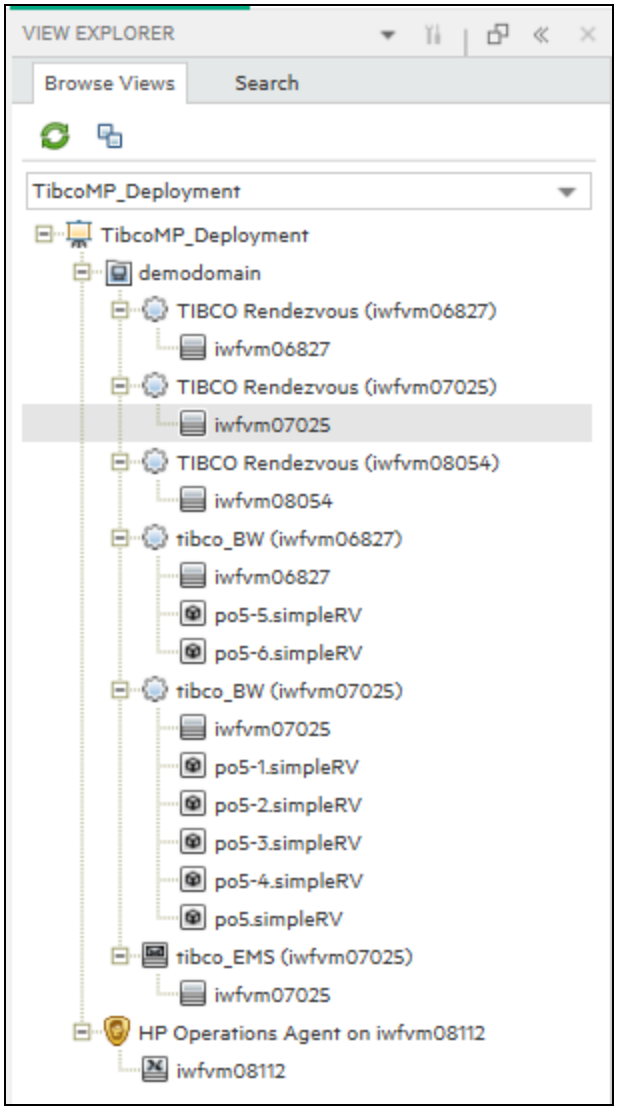
To view the CIs discovered, follow these steps:

1. Open the Event Perspective pane:

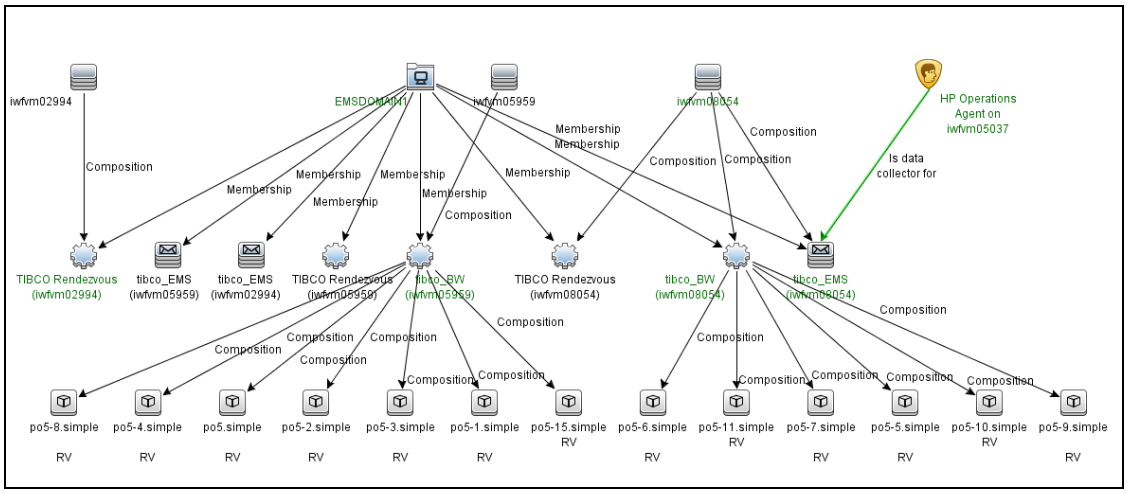
   Click **Workspaces > Operations Console > Event Perspective**.

2. In the **Browse Views** tab, select the **TibcoMP_Deployment** view.

Following is an example of **TibcoMP_Deployment** view populated with CIs.



Following is an example of the complete domain that is discovered.



Task 4: Deploying the TIBCO Management Template or Aspects

You can deploy the Management Templates to the **TibcoAdministrationDomain** CIs. You can deploy Aspects to **TibcoBusinessWorks**, **TibcoEmsServer** or **RendezvousDaemon** CIs depending on the component required to be monitored. For more information about deploying Management Template, go to Task 4a: Deploying the TIBCO Management Template. For more information about deploying Aspects, go to Task 4b: Deploying the TIBCO Aspects.

Data Collection Process

The frequency (polling interval) at which each policy must run is predefined with a default value in a specific frequency parameter. Frequency parameter is an expert parameter that is defined for each of the metrics, regardless of whether they are for generating events or not.

Following are the four predefined frequency parameters:

Scheduler Frequency	Default value
Very High	5 minutes
High	15 minutes
Medium	1 hour
Low	24 hours

After Management Templates and Aspects are deployed, the collector is triggered based on the parameter value in a specific policy. You can modify the default value of the parameter at the following levels:

- During deployment of the Management Template or Aspects using the Management Templates & Aspects pane
- After deployment using the Assignments & Tuning pane.

For more information about how to modify the parameter values, see *Tuning Parameters*.

Task 4a: Deploying the TIBCO Management Template

The OMi MP for TIBCO provides a range of Aspects to monitor various features of domain transports. You can either deploy aspects or customize existing Management Template to monitor additional features. For more information about the list of Aspects, see the section "TIBCO Aspects".

To deploy the Essential TIBCO Management Template to the TibcoAdministrationDomain CI, follow these steps:

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:

   Click **Configuration Folders > TIBCO Application Management> Management Templates**.

3. In the Management Templates & Aspects pane, select the Management Template that you want to deploy, and then click  **Assign and Deploy Item**. The Assign and Deploy wizard opens.

4. In the **Configuration Item** tab, select the CI to which you want to assign the Management Template, and then click **Next**.

5. In the **Required Parameters** tab, click **Next**.

6. *(Optional)*. In the **Parameter Summary** tab, you can change the default values of the parameters by following these steps:

   a. Select the **TIBCO HAWK DOMAIN** parameter, and then click  .

      The Edit Instance Parameter: TIBCO HAWK DOMAIN dialog box opens. A list of threshold, frequency, and severity parameters for Rendezvous Daemon, TibcoBusinessWorks, and TibcoEmsServer are displayed.

b. Select the required parameter and click  .

c. Click **Value**, specify the value, and then click **OK**.

d. Click **Next**.

7. *(Optional).* In the **Configure Options** tab, if you do not want to enable the assignment immediately, clear the **Enable Assignment(s)** check box. You can enable the assignment later using the Assignments & Tuning pane.

8. Click **Finish**.

Task 4b: Deploying the TIBCO Aspects

To deploy TIBCO Aspects to the TibcoBusinessWorks, TibocEmsServer or RendezvousDaemon CI, follow these steps:

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:

   Configuration Folders > TIBCO Application Management > Aspects

3. In the Management Templates & Aspects pane, select any Aspect that you want to deploy, and then click  **Assign and Deploy Item**.

   Alternately, you can right-click any Aspect that you want to deploy, and then click **Assign and Deploy Item** to open the Assign and Deploy wizard.

4. In the **Configuration Item** tab, select the appropriate CI to deploy the Aspect and then click **Next**.

   > **Note:** If you want to deploy Aspects to the monitored Node directly, then select the **Also show CIs of type Node** check box.

5. In the **Required Parameters** tab, click **Next**.

6. *(Optional)*. In the **Parameter Summary** tab, you can change the default values of the parameters by following these steps:

   a. Select the **TIBCO HAWK DOMAIN** parameter, and then click  .

The Edit Instance Parameter: TIBCO HAWK DOMAIN dialog box opens. A list of threshold, frequency, and severity parameters for Rendezvous Daemon, TibcoBusinessWorks, and TibcoEmsServer are displayed.

b. Select the required parameter and click  .

c. Click **Value**, specify the value, and then click **OK**.

d. Click **Next**.

7. *(Optional).* In the **Configure Options** tab, if you do not want to enable the assignment immediately, clear the **Enable Assignment(s)** check box.

   You can then enable the assignment later using the Assignments & Tuning pane.

8. Click **Finish**.

Monitoring TIBCO Components

After you deploy Aspects, you can analyze the status and health of the TIBCO CIs from the following perspectives:

Event Perspective

Health Perspective

Performance Perspective

Event Perspective

After you deploy the TIBCO Configuration Aspect, you can view the events of the TIBCO CIs that are monitored by OMi MP for TIBCO.

To view the Event Perspective of the TIBCO CIs, follow these steps:

1. Open the Event Perspective pane:

   Click **Workspaces > Operations Console > Event Perspective**.

   The View Explorer pane appears.

2. In the View Explorer, select the **Browse Views** tab.
3. From the drop-down menu, select the **TibcoMP_Deployment** view. Alternatively, you can use the

Search tab to find a TIBCO CIs .

A list of TIBCO CIs monitored by OMi MP for TIBCO appears.

4. Select the Tibco CI for which you want to view the Event Perspective. A list of events for the selected Tibco CI appears on the Event Browser pane.

   When you select an event from the Event Browser, the Event Details pane opens where you can view following details:

   - **General** - Displays a detailed information about the selected event such as Severity, Lifecycle State, Priority, Related CIs and so on.
   - **Additional Info** - Displays a more detailed information about the attributes of the selected event.
   - **Source Info** - Displays an overview of the information available about the source of the selected event.
   - **Actions** - Displays the list of actions available for a selected event. There are two types of possible actions: User Action and Automatic Action.
   - **Annotations** - Displays a list of the annotations attached to the selected event.
   - **Custom Attributes** - Displays a list of the attributes that either an administrator or a responsible user manually configured and added to the selected event.
   - **Related Events** - Displays an overview of all the events that are related to the event selected in the Event Browser.
   - **History** - Displays the history of the selected event.
   - **Resolver Hints** - Displays the information used to identify the node and CI associated with an event.
   - **Instructions** - Displays instruction information designed to help operators handle the associated event.
   - **Forwarding** - Displays the transfer of ownership details if any, for the events.

For more information about the list of ETIs, see the section Event Types Indicators (ETIs).

Health Perspective

After you deploy the TIBCO Configuration Aspect, you can view the events related to the health of the TIBCO CIs that are monitored by OMi MP for TIBCO.

To view the Health Perspective of the TIBCO CIs, follow these steps:

1. Open the Health Perspective pane:

   Click **Workspaces > Operations Console > Health Perspective**.

   The View Explorer pane appears.

2. In the View Explorer pane, select the **Browse Views** tab.
3. From the drop-down menu, select the **TibcoMP_Deployment** view. Alternatively, you can use the **Search** tab to find a TIBCO CI.

   A list of TIBCO CIs monitored by OMi MP for TIBCO appears.

4. Select the TIBCO CI for which you want to view the Health Perspective. A list of health-related events for the selected TIBCO CI appears on the Event Browser pane.

   When you select an event from the Event Browser pane, the following panes appear:

   - **Health Top View** - Displays the health top view of the selected event.
   - **Health Indicators** - Displays the Key Performance Indicators (KPIs) and HIs related to the CI that you select from the Health Top View pane.
   - **Actions** - Displays the list of actions available for a selected event.

For more information about the list of HIs, see the section Health Indicators (HIs).

Performance Perspective

Performance Perspective enables you to populate graphs from existing graph templates. You can also plot customized graphs by selecting the required metrics for a selected CI.

To view the Performance Perspective of TIBCO CIs using graphs, follow these steps:

1. Open the Performance Perspective pane:

   Click **Workspaces > Operations Console > Performance Perspective**.

   The View Explorer pane appears.

2. In the **Browse Views** tab, select the **TibcoMP_Deployment** view. Alternatively, you can use the **Search** tab to find a TIBCO CIs.

   The performance pane appears, which lists the default graphs available for the **TibcoMP_ Deployment** View.

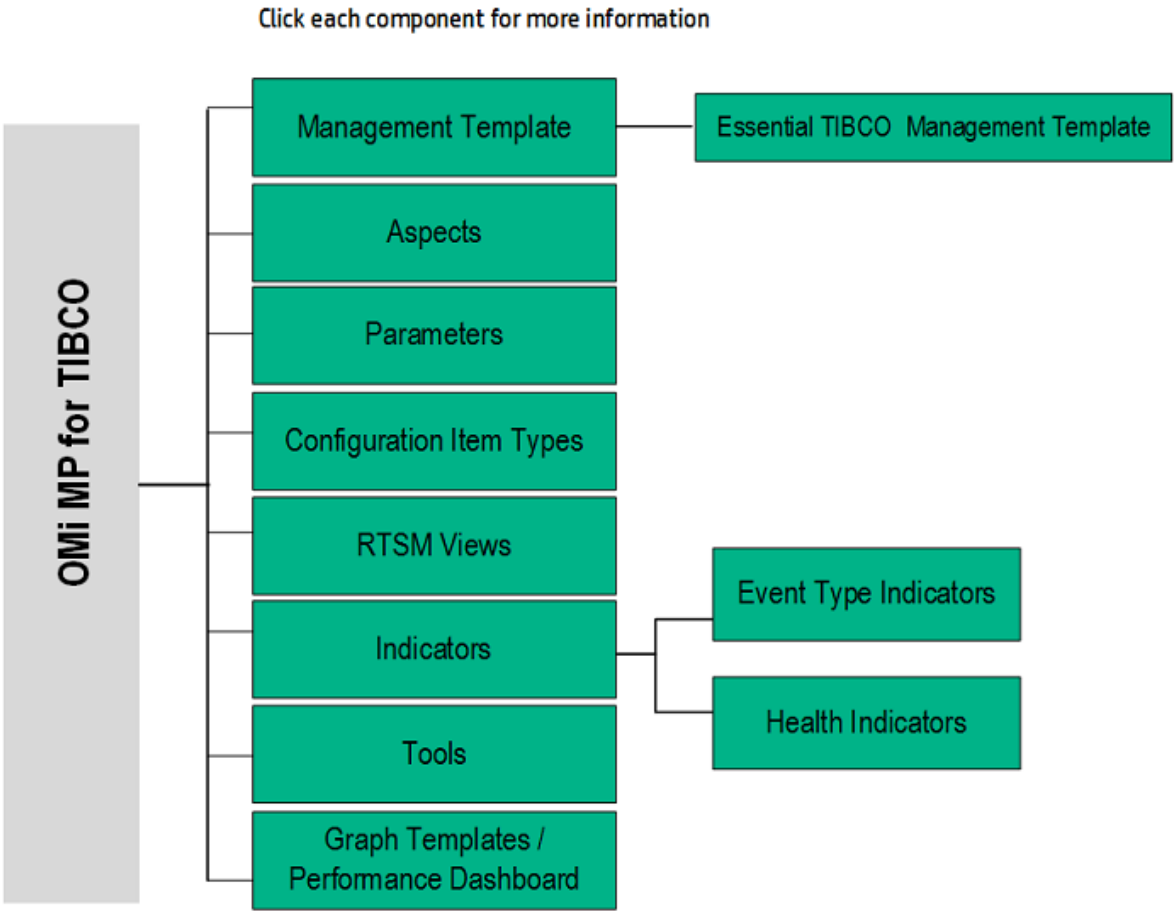
3. Click the graph you want to plot from the **Graphs** tab, and then click  **Draw Graphs**. The selected graph is plotted on the right pane.

> **Note:** For more information about managing events, health, and performance perspectives, see the *Operations Manager i Concepts Guide*.

Chapter 3: Components

The OMi MP for TIBCO includes components for monitoring TIBCO components in your environment.

For more information about the OMi MP for TIBCO components, click on each of the boxes in the following diagram:



TIBCO Management Template

The Management Template consists of several Aspects which enables you to monitor TIBCO components based on the criticality and type of the environment. OMi MP for TIBCO provides Essential TIBCO Management Templates that you can deploy the with the default parameters or you can customize the Management Templates based on your requirements. In addition, you can also create Management Template based on the monitoring requirements using the TIBCO Aspects.

Overview

The OMi MP for TIBCO provides the Essential TIBCO Management Template.

How to Access the TIBCO Management Templates

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.
2. Click **Configuration Folders > TIBCO Application Management > Management Templates**.

Tasks

How to Automatically Assign TIBCO Management Template and TIBCO Aspects

To automatically assign TIBCO Management Template or TIBCO Aspects, you must specify the required privileges.

1. Open the Automatic Assignment Rules pane:

   Click **Administration > Monitoring > Automatic Assignment Rules**.

   The pane consists of the Auto-Assignment Rules pane at the top, and a Parameter list at the bottom.
2. Click  **New Assignment** in the toolbar of the Auto-Assignment Rules pane and select the appropriate option.
3. In the **Select Target View** tab, select the TIBCO view containing the CIs for which you want to create an automatic assignment, and click **Next**.
4. In the **Select Item to Assign** tab, select the TIBCO management template or aspect that you want to automatically assign to all CIs with a CI type appearing in the selected view.

> The list shows only the management templates that have a root CI type that appears in the view that you selected or, in case an aspect is auto-assigned, compatible aspects.

The latest version of the management template or aspect that you want to assign is selected by default. If required, select a different version in the **Version** column.

Click **Next**.

5. In the **Required Parameter** tab, all the mandatory parameters in the management template are listed.
   a. To change a parameter, double-click it, or select it from the list and click  **Edit**.
   b. For standard parameters, the Edit Parameter dialog opens.

      Click **Value**, specify the value, and then click **OK**.
   c. For instance parameters, the Edit Instance Parameter dialog opens.

      Add instance values, and then for each instance value, specify dependent parameter values. After you specify the instances and dependent parameter values, click **OK**.
   d. Click **Next**.
6. *(Optional).* In the **Parameter Summary** tab, specify a value for each parameter that must be monitored against a different value than the default value.
   a. To change a parameter, double-click it, or select it from the list and click  **Edit**.
   b. For standard parameters, the Edit Parameter dialog opens.

      Click **Value**, specify the value, and then click **OK**.
   c. For instance parameters, the Edit Instance Parameter dialog opens.

      Add instance values, and then for each instance value, specify dependent parameter values. After you specify the instances and dependent parameter values, click **OK**.
   d. Click **Next** or **Finish** to save the assignment and close the wizard.
7. *(Optional).* In the **Configure Options** tab, clear the **Enable Assignment(s)** check box, if you do not want to activate the assignment rule immediately.
8. Click **Finish** to save the changes and close the wizard.

The assignment rule is added to the list of auto-assignment rules.

An assignment may trigger an event to be sent to OMi, if one of the following situations applies:

- A deployment job fails.
- An auto-assignment fails.
- An auto-assignment succeeds. This behavior can be configured in the Infrastructure Settings pane.

Follow the steps to check if the automatic assignment rule successfully created the expected assignments:

- Open Assignments & Tuning pane:

  Click **Administration > Monitoring > Assignments & Tuning**.
- In the **Browse Views** tab, select the view you identified when creating your automatic assignment rule.
- Expand the view, and select a node that corresponds to the root CI type of the assigned item. Assignments created as a result of Automatic Assignment Rules are shown in the list of assignments at the top of the right pane, and include the value `AutoAssignment` in the column **Assigned By**.

You can consider the following options for tuning the assignment:

- Use the Auto-Assignment Rules pane to tune the parameter values for all assignments triggered by the automatic assignment rule.
- Use the Assignments pane to tune, redeploy, delete, and enable or disable individual assignments.

How to Display an Assignment Report for TIBCO Management Template

1. Select the Management Template you want to create the report for.
2. Click  **Generate Assignment Report** in the Management Templates & Aspects pane.

   The preconfigured Assignment Report is displayed.

You can display additional types of reports from the Assignments & Tuning pane.

Essential TIBCO Management Template

How to Access the Essential TIBCO Management Template

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. Click **Configuration Folders > TIBCO Application Management > Management Templates**.

User Interface Reference

Management Template - General

Provides an overview of the attributes of the Management Template.

UI Element	Description
Name	Essential TIBCO Management Template
Description	This Management Template monitors the availability and performance of domain transports available in TIBCO environment.
ID	A unique identifier for the GUID version.
Version ID	A unique identifier for this version of the Essential TIBCO Management Template.
Version	The current version of the Management Template. In this instance, the version of the Management Template is 1.0.

Management Template - Topology View

UI Element	Description
Topology View	**TibcoMP_Deployment** is the topology view for the Essential TIBCO Management Template. It contains the CI Types that you want to manage using the Management Template.
CI Type	Indicates the type of CI managed by the Essential TIBCO Management Template. The

UI Element	Description
	Essential TIBCO Management Template contains the **TibcoAdministrationDomain** CI Type.

Management Templates - Aspects

Essential TIBCO Management Template contains the following TIBCO Aspects:

- TIBCO BW Availability
- TIBCO BW Process Statistics
- TIBCO EMS Message Statistics
- TIBCO EMS Availability
- TIBCO EMS Queue Message Statistics
- TIBCO RV Message Statistics
- TIBCO RV Network Statistics

Overview of TIBCO Aspects

TIBCO Aspects are used to monitor the building blocks or units of TIBCO components in your environments.

How to Access the TIBCO Aspects

1. Open Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.
2. Click **Configuration Folders > TIBCO Application Management > Aspects**.

TIBCO Aspects

A TIBCO Aspect comprises policy templates, instrumentation, and parameters for monitoring the health and performance of TIBCO components and Hawk Agent. Each TIBCO aspect can be used to monitor individual TIBCO components.

User Interface Reference

General	Provides an overview of the general attributes of the TIBCO Aspects.
CI Type	The type of CIs that the Aspect can be assigned to. This is the type of CI to which the Management Template can be assigned. The TIBCO Aspects contain the Computer, TibcoEmsServer, RendezvousDaemon, and TibcoBusinessWorks CITs.
Instrumentation	Provides a single package which contains the binaries for discovery, collection, and data logging.
Aspects	Provides an overview of any Aspects that the TIBCO Aspect contains.
Policy Templates	Provides an overview of the policy templates that the TIBCO Aspect contains. You can expand each item in the list to see more details about the policy template.

The OMi MP for TIBCO comprises the following Aspects:

TIBCO BW Availability

This Aspect monitors the status and availability of TIBCO Business Works application.

CI Type	Policy Template	Indicator	Description	Policy Type
TibcoBusinessWorks	TIBCO_BW_Availability	BWApplicationStatus:Unavailable, BWApplicationStatus:Available	Monitors the status of the BW applications.	Measurement Threshold
	TIBCO_BW_	ApplicationStatus:Unavailable, ApplicationStatus:Available	Monitors	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
	Availability		the availability of the BW applications.	

TIBCO BW Process Statistics

This Aspect monitors the TIBCO Business Works application process attributes like jobs aborted, queued, swapped, suspended and so on.

CI Type	Policy Template	Indicator	Description	Policy Type
TibcoBusinessWorks	TIBCO_BW_NumbJobsCheckpointed	NA	Monitors the number of BW jobs for which Checkpoint is complete for all process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_AverageElapsedTime	AppAverageElapsedTime:High, AppAverageElapsedTime:Normal	Monitors the maximum elapsed time of all process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_NumbJobsSuspended	AppJobsSuspended:High, AppJobsSuspended:Normal	Monitors the number of BW jobs	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			suspended for all process definitions in the BW Engine.	
	TIBCO_BW_TotalElapsedTime	NA	Monitors the total elapsed time for all BW process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_TotalErrors	AppTotalErrors:High, AppTotalErrors:Normal	Monitors the total number of errors for all BW process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_NumbJobsCreated	NA	Monitors the number of BW jobs created for all BW process definitions in the BW Engine.	Measurement Threshold
TibcoBusinessWorks	TIBCO_BW_NewErrors	NA	Monitors the number of new errors for all BW process definitions in the BW	Measurement Threshold

CI Type	Policy Template	Indicator	Description	Policy Type
			Engine.	

CI Type	Policy Template	Indicator	Description	Policy Type
	TIBCO_BW_NumbJobsQueued	NA	Monitors the number of jobs queued for all BW process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_NumbJobsAborted	AppJobsAborted:High, AppJobsAborted:Normal	Monitors the number of jobs aborted for all BW process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_MaxElapsedTime	NA	Monitors the maximum elapsed time of all BW process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_NumbJobsSwapped	NA	Monitors the number of jobs swapped for all BW process definitions in the BW Engine.	Measurement Threshold
	TIBCO_BW_MinElapsedTime	NA	Monitors	Measurement

CI Type	Policy Template	Indicator	Description	Policy Type
			the minimum elapsed time of all BW process definitions in the BW Engine.	Threshold
	TIBCO_BW_ NumbJobsCompleted	NA	Monitors the total number of jobs completed for all BW process definitions in the BW Engine.	ConfigFile

TIBCO Configuration

This Aspect contains the configuration details required for discovery of TIBCO domain components. This Aspect deploys instrumentation, creates data sources, discovers the CIs, and define schedulers (low, medium, high, and very high scheduler) for metric collection for all the CIs. It also contains log files for OMi MP for TIBCO.

CI Type	Policy Template	Indicator	Description	Policy Type
Computer	TIBCO_MP_SCRPT_ LOGFILE	NA	Monitors the log file to detect for ERROR strings from TIBCO MP script logfiles.	LogFile Entry
	TIBCO_MP_OPC_MSG	NA	Monitors the general TibcoMP OPC message policy.	Open Message Interface
	TIBCO_ EMSDomainAuthentication	NA	Contains TIBCO Configuration for accepting TIBCO domain transport names and credentials	ConfigFile

CI Type	Policy Template	Indicator	Description	Policy Type
			for EMS domain transport (with or without SSL authentication).	
	TIBCO_Configuration	NA	TIBCO Components Directory Configuration	ConfigFile
	TIBCO_Discovery	NA	Discovers the TIBCO EMS and RV Domains along with BW Applications and MicroAgents.	Service Auto-Discovery
	TIBCO_MP_COLL_ LOGFILE	NA	Monitors the log file to check for ERROR message from TIBCO MP logfiles.	LogFile Entry
	TIBCO_High	NA	Runs the Tibco Collector or Analyzer every HIGH schedule.	Scheduled Task
	TIBCO_VeryHigh	NA	Runs the Tibco Collector or Analyzer every VERY HIGH schedule.	Scheduled Task
	TIBCO_Medium	NA	Runs the Tibco Collector or Analyzer every MEDIUM schedule.	Scheduled Task
	TIBCO_Low	NA	Runs the Tibco Collector or Analyzer every LOW schedule.	Scheduled Task

TIBCO EMS Availability

This Aspect monitors the availability of TIBCO EMS server.

CI Type	Policy Template	Indicator	Description	Policy Type
TibcoEmsServer	TIBCO_ EMS_ Availability	EMSServerStatus:Unavailable, EMSServerStatus:Available	Checks if EMS server is running.	Measurement Threshold

TIBCO EMS Message Statistics

This Aspect monitors and analyzes the health and operation of TIBCO Enterprise Message Service

elements such as TIBCO EMS server, queues, and topics.

CI Type	Policy Template	Indicator	Description	Policy Type
TibcoEmsServer	TIBCO_EMS_InboundMsgCount	NA	Monitors the number of inbound messages for the EMS Server.	Measurement Threshold
	TIBCO_EMS_PendingMsgCount	NA	Monitors the number of pending messages for the EMS Server.	Measurement Threshold
	TIBCO_EMS_InboundMsgRate	EMSInboundMessageRate:High, EMSInboundMessageRate:Normal	Monitors the rate of inbound messages for the EMS Server.	Measurement Threshold
	TIBCO_EMS_OutboundMsgRate	EMSOutboundMessageRate:High, EMSOutboundMessageRate:Normal	Monitors the rate of outbound messages for the EMS Server.	Measurement Threshold
	TIBCO_EMS_OutboundMsgCount	NA	Monitors the number of outbound messages for the EMS Server.	Measurement Threshold

TIBCO EMS Queue Message Statistics

This Aspect monitor and analyze the message flow in TIBCO EMS queues.

CI Type	Policy Template	Indicator	Description	Policy Type
TibcoEmsServer	TIBCO_ EMSQueue_ InboundMsgCount	NA	Monitors the total number of inbound messages in the TIBCO EMS Queue.	ConfigFile
	TIBCO_ EMSQueue_ OutboundMsgCount	NA	Monitors the total number of outbound messages in the TIBCO EMS Queue.	ConfigFile
	TIBCO_ EMSQueue_ InboundMsgRate	NA	Monitors the inbound message rate (messages per sec) for the TIBCO EMS Queue.	ConfigFile
	TIBCO_ EMSQueue_ OutboundMsgRate	NA	Monitors the outbound message rate (messages per sec) for the TIBCO EMS Queue.	ConfigFile
	TIBCO_ EMSQueue_ PendingMsgCount	NA	Monitors the total number of pending messages in the TIBCO EMS Queue.	ConfigFile

TIBCO RV Message Statistics

This Aspect monitors the TIBCO Rendezvous Daemon messages communication.

CI Type	Policy Template	Indicator	Description	Policy Type
RendezvousDaemon	TIBCO_RV_ MessagesSent	NA	Monitors the number of RVD messages sent for the last polling interval.	Measurement Threshold
	TIBCO_RV_ MessagesReceived	NA	Monitors the number of RVD messages received for the last polling interval.	Measurement Threshold

TIBCO RV Network Statistics

This Aspect monitors the TIBCO Rendezvous Daemon network traffic such as bytes and packets transfer and log files.

CI Type	Policy Template	Indicator	Description	Policy Type
RendezvousDaemon	TIBCO_RV_RetransmittedPacketRate	RVRetransmittedPacketRate: High, RVRetransmittedPacketRate: Normal	Monitors the rate of RV packet retransmitted for the last polling interval.	Measurement Threshold
	TIBCO_RV_PacketsSent	NA	Monitors the number of RV packet sent for the last polling interval.	Measurement Threshold
	TIBCO_RV_MissedPackets	NA	Monitors the rate of RV packet missed for the last polling interval.	Measurement Threshold
	TIBCO_RV_BytesReceived	NA	Monitors the RV bytes received for the last polling interval.	Measurement Threshold
	TIBCO_RV_	NA	Monitors	Measurem

CI Type	Policy Template	Indicator	Description	Policy Type
	RetransmittedPackets		the number of RV packet retransmitted for the last polling interval.	ent Threshold
	TIBCO_RV_PacketsReceived	NA	Monitors the rate of RV packet received for the last polling interval.	Measurement Threshold
	TIBCO_RV_BytesSent	NA	Monitors the RV bytes sent for the last polling interval.	Measurement Threshold
	TIBCO_RV_MissedPacketRate	RVMissedPacketRate:High, RVMissedPacketRate:Normal	Monitors the RV rate of missed packets for the last polling interval.	Measurement Threshold

OMi MP for TIBCO provides additional OOTB Aspects that are not part of any Management Template. You can either deploy the required Aspects directly. Additionally, you can add these Aspects to the existing Management Template and then deploy the latest version.

TIBCO EMS LogFile Monitor

This Aspect monitors the TIBCO EMS log file.

CI Type	Policy Template	Indicator	Description	Policy Type
TibcoEmsServer	TIBCO_EMS_ RemoteLogFile	NA	Monitors the TIBCO EMS server log files remotely.	Open Message Interface

TIBCO Hawk Alerts

This Aspect forwards TIBCO Hawk Alerts to Operations Manager i.

CI Type	Policy Template	Indicator	Description	Policy Type
Computer	TIBCO_HawkAlert_ Forward	NA	Forwards the TIBCO Hawk alerts.	Open Message Interface

TIBCO Hawk LogFile Monitor

This Aspect monitors the TIBCO Hawk log file.

CI Type	Policy Template	Indicator	Description	Policy Type
Computer	TIBCO_Hawk_ RemoteLogFile	NA	Monitors the TIBCO Hawk agent log files remotely.	Open Message Interface

TIBCO Hawk Agent Availability

Monitors TIBCO Hawk Agent availability.

CI Type	Policy Template	Indicator	Description	Policy Type
host_ node	TIBCO_MP_ HawkAgentAvailability	NA	Hawk Agent status check	Measurement Threshold

TIBCO RV LogFile Monitor

This Aspect monitors the TIBCO Rendezvous Daemon log file.

CI Type	Policy Template	Indicator	Description	Policy Type
RendezvousDaemon	TIBCO_RV_ RemoteLogFile	NA	Monitor the TIBCO RVD log files remotely.	Open Message Interface

TIBCO User Defined Configuration

This Aspect monitors the User Defined Metrics for TIBCO.

CI Type	Policy Template	Indicator	Description	Policy Type
Computer	TIBCO_UDM_ Metric_Schedule	NA	Runs the TIBCO UDM metric Collection every VERYHIGH schedule.	Scheduled Task
	TIBCO_MP_ UDMMetricsConfig	NA	Sample to create asynchronous or synchronous config file policy template.	ConfigFile
	TIBCO_RV_1XXX	NA	Sample to create measurement threshold policy for TIBCO RV.	Measurement Threshold
	TIBCO_EMS_ 2XXX	NA	Sample to create measurement threshold policy for TIBCO EMS.	Measurement Threshold
	TIBCO_BW_3XXX	NA	Sample to create measurement threshold policy for TIBCO BW.	Measurement Threshold

Policy Template Group

The policy templates are grouped under the MP for TIBCO policy group. A policy template comprises instrumentation, and parameters for monitoring the health and performance of TIBCO.

1. Open the policy groups pane:

   Click **Administration > Monitoring > Policy Templates**.

2. In the Policy Template Groups pane, click **Policy Management > Template Groups > MP for TIBCO**.

The MP for TIBCO policy group contains the following policy templates:

Template Category	Policy Template
ConfigFile	TIBCO_BW_NumbJobsCompleted
	TIBCO_Configuration
	TIBCO_EMSDomainAuthentication
	TIBCO_EMSQueue_InboundMsgCount
	TIBCO_EMSQueue_InboundMsgRate
	TIBCO_EMSQueue_OutboundMsgCount
	TIBCO_EMSQueue_OutboundMsgRate
	TIBCO_EMSQueue_PendingMsgCount
LogFile Entry	TIBCO_MP_COLL_LOGFILE
	TIBCO_MP_SCRPT_LOGFILE
Measurement Threshold	TIBCO_BW_3XXX
	TIBCO_BW_Availability
	TIBCO_BW_AverageElapsedTime
	TIBCO_BW_MaxElapsedTime
	TIBCO_BW_MinElapsedTime
	TIBCO_BW_NewErrors
	TIBCO_BW_NumbJobsAborted
	TIBCO_BW_NumbJobsCheckpointed
	TIBCO_BW_NumbJobsCreated
	TIBCO_BW_NumbJobsQueued
	TIBCO_BW_NumbJobsSuspended
	TIBCO_BW_NumbJobsSwapped
	TIBCO_BW_TotalElapsedTime
	TIBCO_BW_TotalErrors

Template Category	Policy Template
Measurement Threshold	TIBCO_EMS_2XXX
	TIBCO_EMS_Availability
	TIBCO_EMS_InboundMsgCount
	TIBCO_EMS_InboundMsgRate
	TIBCO_EMS_OutboundMsgCount
	TIBCO_EMS_OutboundMsgRate
	TIBCO_EMS_PendingMsgCount
	TIBCO_MP_HawkAgentAvailability
	TIBCO_MP_MicroAgentAvailability
	TIBCO_RV_1XXX
Measurement Threshold	TIBCO_RV_BytesReceived
	TIBCO_RV_BytesSent
	TIBCO_RV_MessagesReceived
	TIBCO_RV_MessagesSent
	TIBCO_RV_MissedPacketRate
	TIBCO_RV_MissedPackets
	TIBCO_RV_PacketsReceived
	TIBCO_RV_PacketsSent
	TIBCO_RV_RetransmittedPacketRate
	TIBCO_RV_RetransmittedPackets
Open Message Interface	TIBCO_EMS_RemoteLogFile
	TIBCO_HawkAlert_Forward
	TIBCO_Hawk_RemoteLogFile
	TIBCO_MP_OPC_MSG
	TIBCO_RV_RemoteLogFile
Service Auto-Discovery	TIBCO_Discovery

Template Category	Policy Template
Scheduled Task	TIBCO_UDM_Metric_Schedule
	Tibco_High
	Tibco_Low
	Tibco_Medium
	Tibco_VeryHigh

Configuration Items (CIs) and Configuration Item Types (CITs)

CIs are components that need to be managed to deliver an IT Service. CIs typically include IT services, hardware, and software. CIT describes the type of a CI and its attributes. The OMi MP for TIBCO consists of the following CIs:

- TibcoApplication
- TibcoAdministrationDomain
- TibcoEmsServer
- TibcoBusinessWorks
- RendezvousDaemon
- HP Operations Agent

Run-time Service Model (RTSM) Views

The RTSM Views[1] for OMi MP for TIBCO enables you to visualize the topology of TIBCO environment that you want to monitor. The RTSM Views can be used to view and manage the Event Perspective and Health Perspective of the TIBCO CIs discovered after deploying the TIBCO Configuration Aspect. You can also use RTSM Views for assigning and tuning the OMi MP for TIBCO in the TIBCO environment.

[1]An RTSM View enables you to build and visualize a subset of the overall RTSM model.

How to Access RTSM Views

1. Open the RTSM Views:

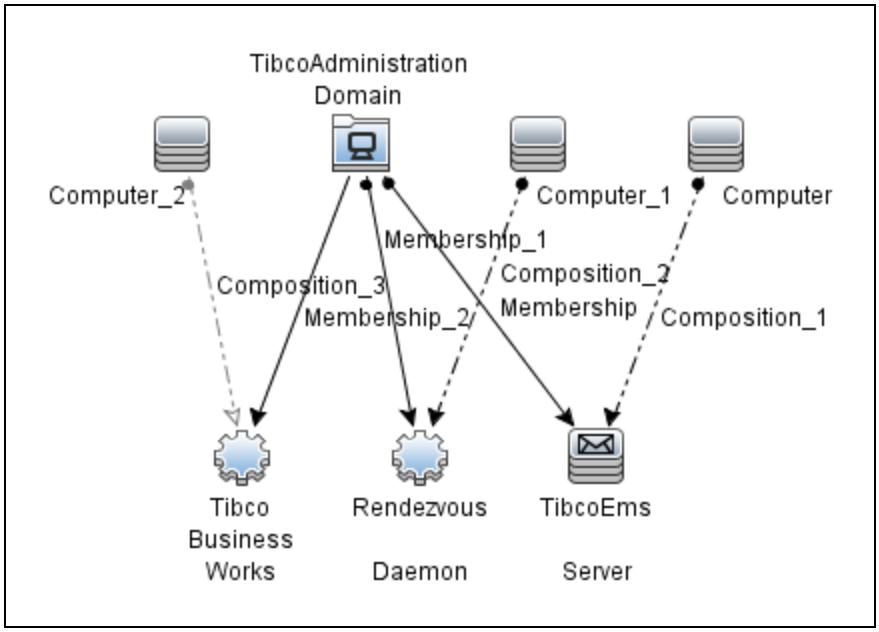
   Click **Administration > RTSM Administration > Modeling > Modeling Studio > Resources**.

2. Select **Views** from the **Resource Type** drop-down list.
3. Select **Operations Management > Tibco > TibcoMP_Deployment**.

By default, the OMi MP for TIBCO contains the following RTSM Views:

TibcoMP_Topology: This RTSM view shows the TibcoAdministrationDomain, Computer, TibcoEmsServer, TibcoBusinessWorks, and RendezvousDaemon CI types. You can use this view if you want to have a snapshot of the CIs used in TIBCO health perspective.

The following image shows the relationship among the CI types:

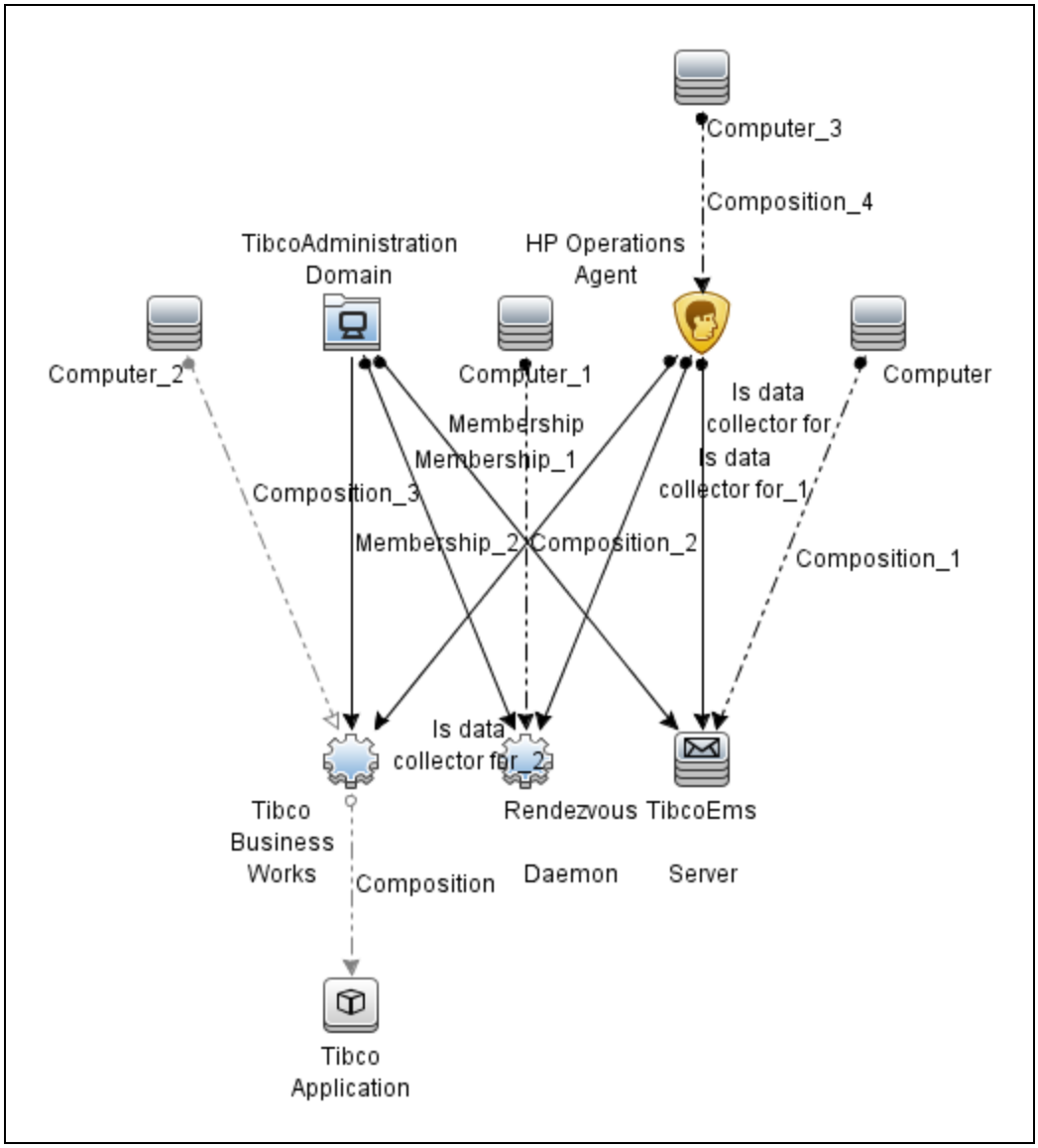


TibcoMP_Deployment: This RTSM view shows the TibcoApplication, TibcoAdministrationDomain, Computer, TibcoEmsServer, TibcoBusinessWorks, RendezvousDaemon, and HP Operations Agent CIs. To have a broader view of the CI types used in the TIBCO environment, you can use the **TibcoMP_Deployment**. You can also:

- Visualize the Event and Health perspectives of the TIBCO CIs that you monitor.
- Visualize events that are specific to the monitored TIBCO.

- Assign and tune the OMi MP for TIBCO deployment in the TIBCO environment.

The following image shows the relationship among the CI types:



Parameters

Parameters are variables that are an integral component of TIBCO Management Template, Aspects, and Policy Templates. Each parameter corresponds to a variable. Parameters contain default values

that are used for monitoring different components of TIBCO. You can also modify the values of the variables to suit your monitoring requirements.

The parameters are grouped as follows:

- Instance Parameters - These parameters are essential for monitoring Hawk domain. For example: TIBCO HAWK DOMAIN.
- Mandatory Parameters - These parameters contain the essential information required by policy templates.
- Expert Parameters - These parameters can be used by SMEs and Administrators on a particular node. For example: Frequency of VERYHIGH, HIGH, Medium, and LOW Scheduler are expert parameters.

Grouping of Parameters

The following is a grouping of parameters used to monitor the OMi MP for TIBCO:

Parameter	Parameter Type	Description	Default Values
TIBCO HAWK DOMAIN	Instance	Application instance for which data needs to be fetched.	NA
HAWK_DOMAIN_ID	Mandatory	Application instance for which data needs to be fetched.	NA
Frequency of TIBCO MP VeryHigh Scheduler (Common Setting)	Expert	Frequency for the scheduler which is expected to run on a very short interval.	5 minutes
Frequency of TIBCO MP High Scheduler (Common Setting)	Expert	Frequency of data collection when the scheduler interval is set to HIGH.	15 minutes
Frequency of TIBCO MP Medium Scheduler (Common Setting)	Expert	Frequency for the scheduler which is expected to run on medium interval.	1 hour
Frequency of TIBCO MP Low Scheduler (Common Setting)	Expert	Frequency for the scheduler which is expected to run on low interval.	24 hours
Frequency of TIBCO MP Log (Common Setting)	Expert	Frequency for monitoring TIBCO MP log file with defined patterns.	5 minutes

Parameter	Parameter Type	Description	Default Values
Frequency of TIBCO MP Script Log (Common Setting)	Expert	Frequency for monitoring TIBCO MP script logs with defined patterns.	5 minutes

Event Type Indicator (ETI)

ETI is a categorization of events based on the type of occurrence. The OMi MP for TIBCO includes the following ETIs to monitor TIBCO-related events:

How to Access Indicator

1. Open the Indicators pane:

   Click **Administration > Service Health > CI Status Calculation > Health- and Event Type Indicators**.

2. In the CI Type pane, click **Configuration Item > InfrastructureElement > Application Resource > TibcoResource > TibcoApplication**.

CI Type	ETI	Description	Value/Severity
TibcoApplication	Application Total Errors	Indicates the total number of errors in the BW Engine.	Normal/NORMAL, High/MAJOR

Health Indicators (HIs)

HIs analyze the events that occur in TIBCO CIs and report the health of the TIBCO CIs. The OMi MP for TIBCO includes the following HIs to monitor the TIBCO-related events:

How to Access Indicators

1. Open the Indicators pane:

Click **Administration > Service Health > CI Status Calculation > Health- and Event Type Indicators**.

2. In the CI Type pane, click **Configuration Item > InfrastructureElement > Application Resource > TibcoResource > TibcoApplication**.
   - For TibcoApplication CI, select **Configuration Item > Infrastructure Element > Application Resource > TibcoResource > TibcoApplication**.
   - For TibcoEmsServer CI, select **Configuration Item > Infrastructure Element > Running Software > MessagingServer > TibcoEmsServer**.
   - For RendezvousDaemon CI, select **Configuration Item > Infrastructure Element > Running Software > RendezvousDaemon**.

CI Type	HI	Description	Value/Severity
TibcoEmsServer	EMS Outbound Message Rate	Indicates the number of outbound messages per second.	Normal/NORMAL, High/MAJOR
	EMS Inbound Message Rate	Indicates the number of inbound messages per second.	Normal/NORMAL, High/MAJOR
	EMS Server Status	Shows the EMS Server status in terms of Availability.	Available/NORMAL, Unavailable/CRITICAL
TibcoApplication	Application Jobs Suspended	Indicates the total number of jobs suspended for all process definitions in the BW Engine.	Normal/NORMAL, High/MAJOR
	Application Status	Shows the BW Application Status in terms of Availability.	Available/NORMAL, Unavailable/CRITICAL
	Application Average Elapsed Time	Indicates the average elapsed time (in milliseconds) of all the process definitions in the BW Engine.	Normal/NORMAL, High/MAJOR
	Application Jobs Aborted	Indicates the total number of jobs aborted for all process definitions in the BW Engine.	Normal/NORMAL, High/MAJOR
RendezvousDaemon	RV Missed Packet Rate	Indicates the Rate of RV Missed Packet for the last polling interval.	Normal/NORMAL, High/MAJOR
	RV Retransmitted Packet Rate	Indicates the Rate of RV retransmitted packet for the last polling interval.	Normal/NORMAL, High/MAJOR

Performance Dashboard and Graph Templates

The OMi MP for TIBCO provides a set of graph templates to monitor the performance of the TIBCO components.

Performance Dashboard

How to Access the TIBCO Performance Dashboard

1. Open the CI Types pane:

   Click **Workspaces > Operations Console > Performance Perspective**.

2. In the **Browse View** tab, select the **TibcoMP_Deployment** View.

Following are the type of Performance Dashboard:

CI	Performance Dashboard	Graphs	Class Name / Metrics
TibcoApplication	TIBCO BW Application Performance	TIBCO BW Application Availability	TIBBWENGINE / BW_APP_ AVAIL
		Application Errors	TIBBWENGINE / BW_TOTAL_ ERRORS
		Application Jobs Breakdown	TIBBWENGINE / BW_JOBS_ ABORTED
			TIBBWENGINE / BW_JOBS_ CHCKPTD
			TIBBWENGINE / BW_JOBS_ CMPLTD
			TIBBWENGINE

CI	Performance Dashboard	Graphs	Class Name / Metrics
			/ BW_JOBS_ CREATED
			TIBBWENGINE / BW_JOBS_ SUSPENDED
			TIBBWENGINE / BW_JOBS_ SWAPPED
		Application Time Breakdown	TIBBWENGINE / BW_AVG_ ELPSTIM
			TIBBWENGINE / BW_MIN_ ELPSTIM
			TIBBWENGINE / BW_MAX_ ELPSTIM
			TIBBWENGINE / BW_TOTAL_ ELPSTIM
TibcoApplication	TIBCO BW Application Performance	BW Application Jobs Statistics	TIBBWENGINE / BW_JOBS_ ABORTED
			TIBBWENGINE / BW_JOBS_ CHCKPTD
			TIBBWENGINE / BW_JOBS_ CMPLTD
			TIBBWENGINE / BW_JOBS_ CREATED
			TIBBWENGINE / BW_JOBS_ QUEUED
			TIBBWENGINE

CI	Performance Dashboard	Graphs	Class Name / Metrics
			/ BW_JOBS_ SUSPENDED
			TIBBWENGINE / BW_JOBS_ SWAPPED
		TIBCO BW Application Time Spent Statistics	TIBBWENGINE / BW_AVG_ ELSPTIM
			TIBBWENGINE / BW_MAX_ ELPSTIM
			TIBBWENGINE / BW_MIN_ ELPSTIM
			TIBBWENGINE / BW_TOTAL_ ELPSTIM
TibcoEmsServer	TIBCO EMS Performance	TIBCO EMS Availability	TIBEMS /EMS_ SERVER_ STATE
		Inbound Message Count	TIBEMS / EMS_IN_MSG_ CNT
		Outbound Message Count	TIBEMS / EMS_OUT_ MSG_CNT
		Pending Message Count	TIBEMS / EMS_PNDG_ MSG_CNT
		Message Count Breakdown	TIBEMS / EMS_IN_MSG_ CNT
			TIBEMS / EMS_OUT_ MSG_CNT
			TIBEMS /

CI	Performance Dashboard	Graphs	Class Name / Metrics
			EMS_PNDG_ MSG_CNT
		EMS Throughput for Message Count	TIBEMS / EMS_IN_MSG_ CNT
			TIBEMS / EMS_OUT_ MSG_CNT
			TIBEMS / EMS_PNDG_ MSG_CNT
		EMS Throughput for Message Rate	TIBEMS / EMS_IN_MSG_ CNT
			TIBEMS / EMS_OUT_ MSG_CNT
RendezvousDaemon	TIBCO RV Performance	Message Count Breakdown	TIMRV / RV_ MESSAGES_ SENT
			TIMRV / RV_ MESSAGES_ RCVD
		Bytes Count Breakdown	TIMRV / RV_ BYTES_SENT
			TIMRV / RV_ BYTES_RCVD
		Packets Count Breakdown	TIMRV / RV_ PACKETS_ SENT
			TIMRV / RV_ PACKETS_ RCVD
			TIMRV / RV_ MISSED_PKTS

CI	Performance Dashboard	Graphs	Class Name / Metrics
			TIMRV / RV_ RETRANS_ PKTS
		RV Throughput for Message Sent and Received	TIMRV / RV_ MESSAGES_ SENT
			TIMRV / RV_ MESSAGES_ RCVD
		RV Throughput for Bytes Sent and Received	TIMRV / RV_ BYTES_SENT
			TIMRV / RV_ BYTES_RCVD
		RV Throughput for Packets Transfer	TIMRV / RV_ PACKETS_ SENT
			TIMRV / RV_ PACKETS_ RCVD
			TIMRV / RV_ MISSED_ PKTRT
			TIMRV / RV_ RETRANS_ PKTS
		RV Throughput for Packets Rate	TIMRV / RV_ MISSED_PKTS
			TIMRV / RV_ RETRANS_ PKTS

Graph Templates

How to Access the TIBCO Graph Templates

1. Open the CI Types pane:

   Click **Administration > Operations Console > Performance Graph Mappings**.

2. In the CI Types pane, follow the steps based on CI:
   - For TibcoApplication CI, select **Configuration Item > Infrastructure Element > Application Resource > TibcoResource > TibcoApplication**.
   - For TibcoEmsServer CI, select **Configuration Item > Infrastructure Element > Running Software > MessagingServer > TibcoEmsServer**.
   - For RendezvousDaemon CI, select **Configuration Item > Infrastructure Element > Running Software > RendezvousDaemon**.

Following are the graph templates provided by the OMi MP for TIBCO

CI Type	Graph Family	Graph Templates	Description	Class Name / Metric Name
TibcoEmsServer	TIBCO EMS	EMS_Availability	This graph plots availability of TIBCO EMS Server with value 0 as down and 1 as up and running.	TIBEMS / EMS_ SERVER_ STATE
		EMS_Throughput_ Message_Count	This graph plots TIBCO EMS Message Count Statistics.	TIBEMS / EMSQ_IN_ MSG_CNT
				TIBEMS / EMSQ_OUT_ MSG_CNT
				TIBEMS / EMSQ_PNDG_ MSG_CNT
		EMS_Throughput_	This graph plots	TIBEMS /

CI Type	Graph Family	Graph Templates	Description	Class Name / Metric Name
		Message_Rate	TIBCO EMS Message Rate Statistics.	EMSQ_IN_ MSG_PERSEC
				TIBEMS / EMSQ_OUT_ MSG_PERSEC
RendezvousDaemon	TIBCO RV	RV_Throughput_ Messages	This graph plots Messages Sent and Received by TIBCO RV.	TIBRV / RV_ MESSAGES_ RCVD
		RV_Throughput_ Bytes	This graph plots Bytes Sent and Received by TIBCO RV.	TIBRV / RV_ BYTES_SENT
				TIBRV / RV_ BYTES_RCVD
		RV_Throughput_ Packets	This graph plots Packets Transfer Count by TIBCO RV.	TIBRV / RV_ PACKETS_ SENT
				TIBRV / RV_ PACKETS_ RCVD
				TIBRV / RV_ MISSED_PKTS
				TIBRV / RV_ RETRANS_ PKTS
		RV_Throughput_ Packet_Rate	This graph plots Packets Transfer Rate by TIBCO RV.	TIBRV / RV_ MISSED_ PKTRT
				TIBRV / RV_ RETRAN_ PKTRT
TibcoApplication	TIBCO BW Application	BWApplication_ Availability	This graph plots availability of TIBCO BW Application with value 0 as down and 1 as up and running.	TIBBWENGINE / BW_APP_ AVAIL

CI Type	Graph Family	Graph Templates	Description	Class Name / Metric Name
		BW_Application_Jobs_Statistics	This graph plots BW Application Jobs Statistics.	TIBBWENGINE / BW_JOBS_CREATED
				TIBBWENGINE / BW_JOBS_SUSPNDED
				TIBBWENGINE / BW_JOBS_SWAPPED
				TIBBWENGINE / BW_JOBS_QUEUED
				TIBBWENGINE / BW_JOBS_ABORTED
				TIBBWENGINE / BW_JOBS_CMPLTD
				TIBBWENGINE / BW_JOBS_CHCKPTD
		BW_Application_Time_Statistics	This graph plots BW Application Time Statistics.	TIBBWENGINE / BW_AVG_ELPSTIM
				TIBBWENGINE / BW_MIN_ELPSTIM
				TIBBWENGINE / BW_MAX_ELPSTIM
				TIBBWENGINE / BW_TOTAL_ELPSTIM

Tools

The OMi MP for TIBCO is packaged with tools which enable administering OMi MP for TIBCO. It comprises the following tools.

How to Access Tools

1. Open the Tools pane:

   Click **Administration > Operations Console > Tools**.

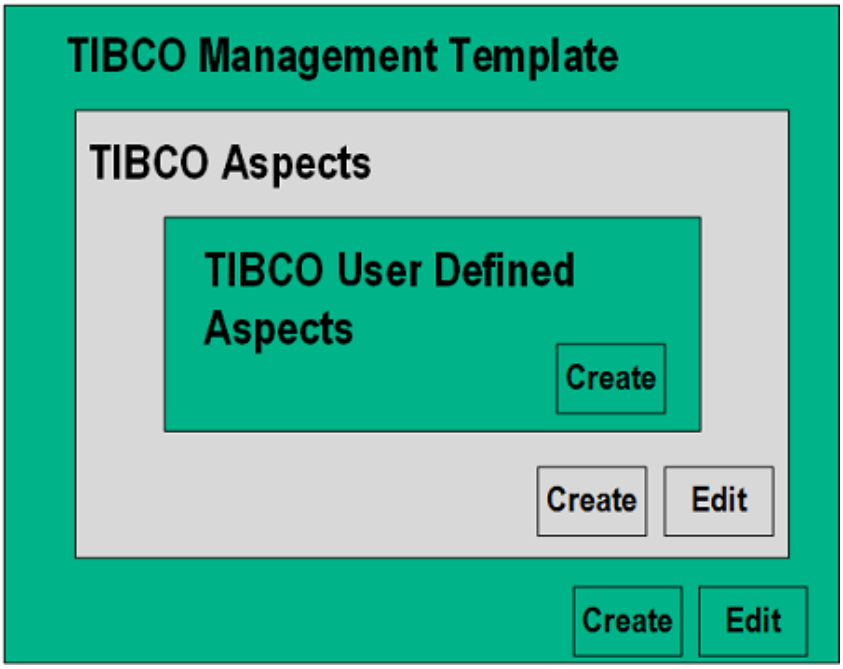
2. In the CI Types pane, click **InfrastructureElement > Node > Computer**.

CI Type	Tool Name	Description
Computer	TIBCO Monitoring Status	Checks status of TIBCO monitoring on the managed node.
	Start TIBCO Monitoring	Starts TIBCO monitoring on the managed node.
	Stop TIBCO Monitoring	Stops TIBCO monitoring on the managed node.
	Restart TIBCO Monitoring	Restarts TIBCO Monitoring on the managed node.
	Delete TIBCO Datasource	Deletes datasource of TIBCO on the managed node.
	Data Capture Tool for OMi Management Pack for TIBCO	Captures and archives key MP logs and configuration data of TIBCO MP.

Chapter 4: Customizing OMi MP for TIBCO

OMi MP for TIBCO can be customized to suit your monitoring requirements. You can customize the OMi MP for TIBCO using the following customization scenarios:

- "Tuning of Components"
- "Creating New TIBCO Management Template"
- "Creating New TIBCO Aspect"
- "Creating User Defined Metrics (UDM)"



Tuning of Components

You can tune the following components:

- Parameters
- Aspects
- Management Template

Tuning Parameters

You can modify the default value of parameters either before or after deploying the TIBCO Management Template or Aspects. You can edit parameter values during deployment using Management Templates & Aspects pane. You can provide customized parameter values after (Management Template or Aspects) deployment for each of the assignment using Assignments & Tuning pane.

Following is the list of parameters with the default values that you can edit.

Parameters	Default Values
Frequency of Very High Scheduler	5 minutes
Frequency of High Scheduler	15 minutes
Frequency of Medium Scheduler	30 minutes
Frequency of Low Scheduler	1 hour
Frequency of daily Scheduler	24 hours
Frequency	NA
Threshold	NA
Severity	NA

To modify the frequency of collection, corresponding Schedule Task policy must be modified. To modify the individual policy schedule, corresponding frequency parameters must be modified.

You can edit the parameters of the TIBCO Management Template and TIBCO Aspects that are already deployed to the CIs.

1. Open Assignments & Tuning pane:

   Administration > Monitoring > Assignments & Tuning.

2. In the **Browse Views** tab, select the **TibcoMP_Deployment** view that contains the CI for which you want to tune parameters. Alternatively, you can use the **Search** tab to find a CI.
3. In the list of TIBCO CIs, click a CI. The Assignments pane shows details of any existing assignments for the TIBCO CI.
4. Click the assignment for which you want to tune parameters. The Assignment Details pane shows the current parameter values.
5. In the Assignment Details pane, change the parameters:

a. *(Optional).* By default, the list shows only mandatory parameters.

b. Select a parameter in the list, and then click  .

- For standard parameters, the Edit Parameter dialog box opens.

  Click **Value**, specify the value, and then click **OK**.

- For instance parameters, the Edit Instance Parameter dialog box opens.

  Change the instance values if necessary, and then for each instance value, change dependent parameter values. After you change the instances and dependent parameter values, click **OK**.

6. In the Assignment Details pane, click **Save Changes**. Operations Console deploys the new parameter values to the relevant Operations Agent.

Tuning Aspects

Use Case: You are monitoring the rate of message received or sent in the RV domain at VERYHIGH (5 minutes) frequency. You want to minimize the frequency.

1. Open the Assignments & Tuning pane:

   Click **Administration > Monitoring > Assignments & Tuning**.

2. In the **Browse Views** tab, select the **TIBCO_Deployment_View** that contains the CI for which you want to edit the value.
3. In the list of CIs, select **RendezvousDaemon** for which you want to change the frequency. The Assignment Details pane shows the current parameter values.
4. You can change the default parameter values by following these steps:

   a. In the Assignment Details pane, double-click the **RVD's Messages Received Count - Frequency** parameter. The Edit Parameter dialog box opens.

   b. Change the value and click **OK**. The updated parameter is assigned to the selected CIs.

Tuning Existing TIBCO Management Template

You can edit the TIBCO Management Templates and modify the following components:

- Parameters
- Aspects

Editing Parameters

"Tuning Parameters"

Editing Aspects

OMi MP for TIBCO provides a range of Aspects that are not part of the existing Management Template. You can customize the existing Management Template to monitor these additional features.

Use Case: You are using the Essential TIBCO Management Template to monitor BW, EMS, and RV set up in your environment. You are monitoring availability of the domain transport and process or message statistics. You want to additionally monitor the alerts generated by Hawk agent as well. For more information about list of Aspects, see the section "TIBCO Aspects".

To add Aspects from the Management Template:

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:

   Click **Configuration Folders > TIBCO Application Management > Management Templates**

3. Select the Essential TIBCO Management Template and click  . The Edit Management Template appears.
4. Click the **Aspects** tab. The list of Aspects appears.
5. Select the TIBCO Hawk Alerts Aspect in the Selected Aspects pane and click  to move the aspect to the Available Aspects pane.
6. Click **OK**.

The version of the Essential TIBCO Management Template is incremented.

Creating New TIBCO Aspect

You can create a new TIBCO Aspect using OOTB policies.

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. In Configuration Folder pane, click **Configuration Folders** > **TIBCO Application Management** > **Aspects**.

3. In the Management Template & Aspects pane, click  , and then click  **Create Aspect**. The Add New Aspect window opens.

4. In the **General** tab, specify a name for the new aspect, and then click **Next**.

5. In **CI type** tab, select the CI Type and click **Next**. For more information about the CI Types, see the section "Configuration Items (CIs) and Configuration Item Types (CITs)".

6. In the **Instrumentation** tab, add **TIBCO_Monitoring_MP** and **DCT**. Click **Next**.

7. In the **Aspects** tab, add the required Aspect and click **Next**.

   > **Note:** If you are adding existing Aspects within an Aspect, make sure at least one of the CITs of the Aspect that you add must be a CIT or a parent CIT of the existing Aspect.

8. In the **Policy Templates** tab, add the required policy and click **Next**.

9. In the **Parameters** tab, you can edit the default values of the parameters.

10. Click **Finish** to save the Aspect.

The new Aspect appears in the Management Template & Aspects pane.

Creating New TIBCO Management Template

The following section provides information on creating a new Management Template:

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Management Templates & Aspects pane, click  and click  **Create Management Template**. The Create Management Template window opens.
3. In the **General** tab, specify a **Name** and a **Version** to the new Management Template and click **Next**.
4. In the **Topology View** tab, select the **TibcoMP_Deployment** topology view from the drop-down list.
5. Select the **TibcoAdministrationDomain** CI Type from drop-down list and click **Next**.
6. In the **Aspects** tab, select one CI Type from the Layout pane, related Aspects are listed, add Aspects as required and click **Next**.

   For more information about the list of Aspects available, see the section "TIBCO Aspects". Add all the Aspects listed under a particular group to monitor the specific feature.
7. In the **Parameters** tab, combine the parameters.
8. Click **Finish**.

The new Management Template appears in the Management Templates & Aspects pane.

Creating User Defined Metrics (UDM)

You can collect additional data from Hawk agent by creating User Defined Metrics (UDMs). By default, the UDMs are part of User Defined Aspects (UDA). The OMi MP for TIBCO enables you to define additional metrics and mechanisms to collect these metric values.

The User Defined Aspect includes the following policies:

- TIBCO_MP_UDMMetricsConfig - Sample Config file policy template to create a UDM.
- TIBCO_UDM_Metric_Schedule - Sample Schedule Task policy template to create a UDM.
- TIBCO_RV_1XXX - Measurement Threshold policy for monitoring RV.
- TIBCO_EMS_2XXX - Measurement Threshold policy for monitoring EMS.
- TIBCO_BW_3XXX - Measurement Threshold policy for monitoring BW.

Tasks for Creating and Deploying User Defined Aspect

Following are the tasks that must be completed to start monitoring as per your requirement:

1. "Defining new policy"
2. "Defining Configuration for Metric Collection"
3. "Creating Schedule Task Policy"
4. "Creating TIBCO User Defined Configuration Aspect"

Defining new policy

Define the UDM metric in the TIBCO_MP_UDMMetricsConfig policy.

1. Open the Policy Template pane:

   Click **Administration > Monitoring > Policy Templates**.

2. In the Policy Templates Groups pane:

   Click **Template Groups > TIBCOMP**.

3. In the Policy Template pane, select **TIBCO_MP_UDMMetricsConfig** policy.

4. In the **TIBCO_MP_UDMMetricsConfig**, select 1.0 and then click  **Edit Policy Template (Raw Mode)**.

5. Click the **Policy Data** tab. It contains details about defining a user defined metric for Asynchronous and Synchronous metric type and sample example of user defined metric.

   Asynchronous Metric sample for RV domain

```
<Metric id="TIBCOMP_1" domain="domainname" hawkagentname="agentname"
       microagentname="microagent"
       alarm="true" enabled="false" isAsync="true">
<MethodName>onRvDaemonStatus</MethodName>
<MetricName>Messages Sent</MetricName>
       <Params>
              <Param>
                     <Name>Service</Name>
                     <Value>7474</Value>
              </Param>
              <Param>
```

```
                <Name>Interval</Name>
                <Value>300</Value>
            </Param>
            <Param>
                <Name>Network</Name>
                <Value>;</Value>
            </Param>
            <Param>
                <Name>Daemon</Name>
                <Value>tcp:7474</Value>
            </Param>
        </Params>
</Metric>
```

Synchronous Metric Sample for EMS and BW domains

```
<Metric id="TIBCOMP_2" domain="domainname" hawkagentname="agentname"
microagentname="JMS_controller"
alarm="true" enabled="false" isAsync="false">
        <MethodName>getServerInfo</MethodName>
        <MetricName>outboundMessageRate</MetricName>
</Metric>
```

6. Click **Save and Close**.

The version number of the TIBCO_MP_UDMMetricsConfig policy is incremented by 0.1.

For multiple policies, copy and paste the `<metric>` block and make sure that `Metric id` is unique.

Defining Configuration for Metric Collection

OMi MP for TIBCO provides three measurement threshold sample policies, one for each TIBCO component (BW, EMS, and RV). Select and modify one of the following policies based on your domain transport.

- TIBCO_RV_1XXX - Measurement Threshold policy for monitoring RV.
- TIBCO_EMS_2XXX - Measurement Threshold policy for monitoring EMS.
- TIBCO_BW_3XXX - Measurement Threshold policy for monitoring BW.

Following is an example to modify Measurement Threshold policy for EMS:

1. Open the Policy Template pane:

   Click **Administration > Monitoring > Policy Templates**.

2. In the Policy Templates Groups pane:

   Click **Template Groups > TIBCOMP**.

3. In the Policy Templates pane, select a measurement threshold policy based on the domain requirement. For example, to monitor EMS domain transport, click **TIBCO_EMS_2XXX**.

4. To create a copy of the **TIBCO_EMS_2XXX** policy, right-click and then click **Copy Item**. Then click **Paste Item**. Alternately, you can select **TIBCO_EMS_2XXX**, click **Copy Item** and then click **Paste Item**.

5. Rename the **TIBCO_EMS_2XXX** policy and click **OK**. For example, policy name can be TIBCO_EMS_1 or TIBCO_EMS_397. The **TIBCO_EMS_210** policy is referred in the following section as example.

6. To modify parameter names, description, and values, follow these steps:

   a. In the Policy Template pane, select the **TIBCO_EMS_210** policy template and then click **Edit Policy Template**.

   b. Click **Rules** tab.

   c. In the Instance Rules Overview pane, select the *TIBCO_EMS_2XXX.1: Warning threshold* rule.

   d. In the Instance Rule Definition - Policy Parameters pane, select the **Sample TIBCO EMS UDM, CollectionID** parameter and click .

   e. Modify the **Default Value** to the Metric ID mentioned in the TIBCO_MP_UDMMetricsConfig policy.

   > For example, if you have defined `Metric id="TIBCOMP_2"` in the TIBCO_MP_UDMMetricsConfig policy, then modify the **Default Value** from *2XXX* to *2*.

   f. Click **OK**.

   g. Modify all occurrence of *TIBCO_EMS_2XXX* to the renamed policy title.

   h. Click **Save and Close**.

   The version of the measurement threshold policy template increments by 0.1.

Creating Schedule Task Policy

1. Open the Policy Template pane:

   Click **Administration > Monitoring > Policy Templates**.

2. In the Policy Templates Groups pane:

   Click **Template Groups > TIBCOMP**.

3. In the Policy Template pane, select **TIBCO_UDM_Metric_Schedule** policy.

4. In the **TIBCO_UDM_Metric_Schedule**, select 1.0 and then click  **Edit Policy Template**.

5. Click the **Task** tab, in the **Command** field, specify the measurement threshold policies that were created. You can include multiple metrics separated by comma (,) or a range of metrics using hyphen (a-b).

   To modify parameter name, description or value, follow these steps:

   a. In the **Policy Parameter** tab, select the **Frequency of TIBCO MP High Scheduler (Common Setting)** parameter and click  . The Edit Parameter dialog box opens.

   b. In the **Default Value** field, type the value.

   c. Click **OK**.

6. Click **Save and Close**.

The version of the policy template **TIBCO_UDM_Metric_Schedule** increments by 0.1.

Creating TIBCO User Defined Configuration Aspect

To create User Defined Configuration Aspect, follow these steps:

To define new user-defined Aspect, include the latest version of the following policies and one of the measurement threshold policies:

- TIBCO_MP_UDMMetricsConfig - Sample Config file policy template to create a UDM.
- TIBCO_UDM_Metric_Schedule - Sample Schedule Task policy template to create a UDM.
- TIBCO_RV_1XXX - Measurement Threshold policy for monitoring RV.

- TIBCO_EMS_2XXX - Measurement Threshold policy for monitoring EMS.
- TIBCO_BW_3XXX - Measurement Threshold policy for monitoring BW.

1. Open the Management Templates & Aspects pane:

   Click **Administration > Monitoring > Management Templates & Aspects**.

2. In the Configuration Folders pane:

   Configuration Folders > TIBCO Application Management > Aspects

3. In the Management Templates & Aspects pane, expand the **TIBCO User Defined Configuration** Aspect. Select the latest version and then click  . The Edit Aspect dialog box opens.

4. Click the **Policy Templates** tab and select the **TIBCO_MP_UDMMetricsConfig** policy template (ConfigFile policy). In the Version column, select the latest version of the policy.

5. Select the **TIBCO_RV_1XXX**, **TIBCO_EMS_2XXX**, and **TIBCO_BW_3XXX** policies, and click  to delete the generic policy.

6. To add the policies, click  **Add Policy Templates From List**. The TIBCO User Defined Configuration Aspect: Edit Aspect window appears. Select the policies (example, TIBCO_EMS_210) and click **OK**.

7. Click **OK**.

The version of the **TIBCO User Defined Configuration** Aspect increments by 0.1.

You can also include TIBCO User Defined Configuration Aspect to existing Management Template. For more information about editing Management Template, see the section "Tuning Existing TIBCO Management Template".

Configuring Advanced Timeout

The *tibcfg.properties* and *tibcmconfiguration.properties* files provides the optional timeout configurations. The configurations mentioned in the following file are not required unless your environment demands. On a managed node, these files are located in the following directory:

On UNIX: `/var/opt/OV/bin/instrumentation`

On Windows: `%OvDataDir%\bin\instrumentation`

> **Note:** In case you modify the *tibcfg.properties* and *tibcmconfiguration.properties* files, you must

run the **`Restart TIBCO Monitoring`** tool.

Forwarding Alerts Generated by Hawk Rules

You must meet the following prerequisites and then follow the steps in the specified order:

Prerequisites:

1. You must install and configure the HawkEventService on a machine within the domain. Alerts generated by Hawk rules should be forwarded to OM console.

   Once the HawkEventService is started for the required domain, there would be a microagent available for the Hawk Event Service.

   For example: If the domain name is MP_TEST, then the HawkEventService microagent name would be HawkEventService:MP_TEST
2. Only one instance of HawkEventService is required for one domain.

To forward alerts generated by Hawk rules, you must follow these steps:

1. Open the Policy Template pane:

   Click **Administration > Monitoring > Policy Templates**.
2. In the Policy Templates Groups pane:

   Click **Template Groups > MP for TIBCO**.
3. In the Policy Template pane, select **TIBCO_HAWKALRT_FWD** policy and click  .

Creating a New Performance Dashboard

You can create a new Performance Dashboard for running TIBCO components. The OOTB Performance Dashboard provides visualization for TIBCO components such as TIBCO Application, TIBCO EMS Server, and TIBCO Rendezvous that are running on the managed node where HPE Operations Agent is running. For TIBCO components running on the other nodes that are monitored from an Agent proxy node, you must create a new Performance Dashboard for respective CIs.
For more information about creating and configuring Performance Dashboard, see *Creating Performance Dashboard* and *Configuring Performance Dashboard* sections in the *HPE Operations*

Manager i User Guide. For more information about metric and data class, see the OMi MP for TIBCO-Reference Guide.

Chapter 5: Troubleshooting Scenarios

The following are some common Troubleshooting scenarios:

> **Note:** The troubleshooting steps provided here must be executed on the TIBCO node.

Licensing count is not updated

Problem: Licensing count is not updated on License Management.

Solution: To resolve this problem, follow these steps:

1. Open License Management:

   Click **Administration > Setup and Maintenance > License Management**.

   The License Management window shows details about the name, license type, days left, expiration date, capacity, and capacity details.

2. To check for the license usage on the TIBCO managed node, run the following command on the managed node:

   ```
   <OvAgentDir>/bin/ovodetect -t
   ```

   If the output of the preceding command is `mpinstance="1"`, then TIBCO component is being monitored. If the output of the preceding command is `mpinstance="0"`, then TIBCO component is not being monitored.

3. If the license is still not updated in License Management, restart agent on the TIBCO managed node by running the following command:

   ```
   <OvAgentDir>/bin/ovc- restart opcmsga
   ```

Management Template and Aspects are not deployed to the managed nodes

Problem: Management Template and Aspects are not deployed to the managed nodes.

Solution: To resolve the problem, following these steps:

1. To check the deployment status, if the deployment has failed:

   Click **Administration > Operations Management > Monitoring > Deployment Jobs**.
2. To check the assignment status if the servers are not assigned to the CIs:

   Click **Administration > Operations Management > Monitoring > Assignments & Tuning**.
3. If both the deployment status and assignment status are successful and the aspects and Management Template are still not deployed, check the following OMi log files:

   Linux:

   `/opt/HP/BSM/log/EJBContainer/opr-webapp.log`

   `/opt/HP/BSM/log/jboss/opr-configserver.log`

   Windows:

   `%TOPAZ_HOME%\log\EJBContainer\opr-webapp.log`

   `%TOPAZ_HOME%\log\jboss\opr-configserver.log`

OMi MP for TIBCO display errors during installation

Problem: Installation of OMi MP for TIBCO return errors.

Solution: You can identify specific errors by checking the `mpinstall.log` file. The `mpinstall.log` file is available at the following location:

Linux:

`/opt/HP/BSM/log/mpinstall.log`

Windows:

```
%TOPAZ_HOME%\log\mpinstall.log
```

OMi MP for TIBCO displays errors during upload of Management Pack

Problem: OMi MP for TIBCO returns error during upload.

Solution: You can identify specific errors by checking the `opr-configserver.log` file.

The `opr-configserver.log` file is available at the following locations:

Linux:

```
/opt/HP/BSM/log/jboss/opr-configserver.log
```

Windows:

```
%TOPAZ_HOME%\log\jboss\opr-configserver.log
```

CIs do not get populated in the View after deploying the TIBCO Configuration Aspect

Problem: Views for the OMi MP for TIBCO are not displayed even after deploying the TIBCO Configuration Aspect.

Solution: You can identify the error by following these steps:

1. Open the Tibco folder:

   UNIX:

   ```
   /var/opt/OV/tmp/Tibco
   ```

   Windows:

   ```
   %OVADATADIR%\tmp\Tibco
   ```

2. Open the `tiblog4j.properties` file.
3. Select the `log4j.appender.FILE.Threshold` and modify to `log4j.appender.FILE.Threshold=trace`.

Tracing is enabled for TIBCO Discovery.

4. Check the `TibcoMP.log` file for specific errors.

   The `TibcoMP.log` file is available at the following locations.

   UNIX:

   `/var/opt/OV/log/Tibco`

   Windows:

   `%OVDATADIR%\log\Tibco`

Collector of OMi MP for TIBCO is not getting started

Problem: Collector of OMi MP for TIBCO is not getting started for data collection.

Solution: To resolve this problem, follow these steps:

1. Open the Tibco folder:

   UNIX:

   `/var/opt/OV/tmp/Tibco`

   Windows:

   `%ovdatadir%\tmp\Tibco`

2. Open the `tiblog4j.properties` file.
3. Select `log4j.appender.FILE.Threshold` and modify to `log4j.appender.FILE.Threshold=trace`.

   Tracing is enabled for TIBCO Collector.

4. Check the `TibcoMP.log` file available at the following location for specific errors.

   UNIX:

   `/var/opt/OV/log/Tibco`

   Windows:

   `%OVDATADIR%\log\Tibco`

No data for Performance Manager i (PMi) Graphs

Problem: Data is not available for PMi graphs from the OMi MP for TIBCO.

Solution: To resolve this problem, follow these steps:

1. Run the following command to check if the graph data sources are created:

   `ovcodautil –obj`

2. Run the following command to check data dumps of TIBCO_MP data source:

   `ovcodautil –dumpds TIBCO_MP`

   If there are empty instances, perform step 3 and 4.

3. From the `tiblog4j.properties` file, select `log4j.appender.FILE.Threshold` and modify to `log4j.appender.FILE.Threshold=trace`.

   Tracing is enabled for TIBCO Collector.

4. Check the `TibcoMP.log` file available in the following location for specific errors.

   UNIX:

   `/var/opt/OV/log/Tibco`

   Windows:

   `%OVDATADIR%\log\Tibco`

Data Logging for Metric may show values as -1

Problem: Data logging for a few metrics may show values of `-1` for one of the following reasons:

- If the TIBCO Hawk API returns null values for raw metrics.
- If the calculated metric contains operands as raw metrics which have null values.
- Delta and rate of change metrics will result in `-1` values for the first scheduled collection. This is the expected behavior.

Solution: To view the data logged for metrics:

1. Run the following command:

   `ovcodautil -dumpds TIBCO_MP`

2. Identify the metric name and check for the metric which contains value logged as `-1` in the CODA dump.
3. Determine the metric ID using the `tibootbmetrics.xml` available at the following location:

   `%ovdatadir%/conf/Tibco/OOTBMetrics/`

4. Verify that the collector logs on the managed node and check for the collection ID that displays exceptions with null value return message in the `TiboMP.log` file available at the following location:

   `%ovdatadir%/log/Tibco`

5. The message provides exact details about which Hawk API - MicroAgent query failed and which returned a null value for the metric.

OMi MP for TIBCO Management Pack collection fails on the Operations Agent 11.x Windows managed node

Problem: OMi MP for TIBCO collection fails on the Operations Agent 11.x Windows managed node.

Description: The following error messages can be seen in the `System.txt` file on the Windows managed nodes:

```
- opcconfigfile (7100/1060): opcconfigfile: Error while executing command
cscript.exe "C:/ProgramData/HP/HP.vbs BTO Software/bin/instrumentation/TibcoConfig_
Perl" "Tibco_Config.pl"

- opcconfigfile: Command execute timeout occurred while executing command
cscript.exe "C:/ProgramData/HP/HP BTO Software/bin/instrumentation/TibcoConfig_
Perl".vbs Tibco_Config.pl

The TibcoConfig_Perl file is not invoked with .vbs extension on Windows managed
nodes. The command cscript.exe "C:/ProgramData/HP/HP BTO
Software/bin/instrumentation/TibcoConfig_Perl".vbs Tibco_Config.pl times out.
```

Solution: To resolve the problem, follow these steps:

1. Apply hotfixes **QCCR1A176251** and **QCCR1A165094**.
2. Set `OPC_CONFIGFILE_TIMEOUT` to three minutes by running the following command on the Windows managed node:

   ```
   ovconfchg -ns eaagt -set OPC_CONFIGFILE_TIMEOUT 180
   ```

OMi MP for TIBCO collection fails on the Operations Agent 12.0 Windows managed node

Problem: OMi MP for TIBCO collection fails on the Operations Agent 12.0 Windows managed node **QCCR1A184632**.

Description: OMi MP for TIBCO collection fails on the Operations Agent 12.0 Windows managed node with the *OvParam.dll* dependency.

Solution: Apply the hotfix **QCCR1A184632**.

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 User Guide (OMi Management Pack for TIBCO 1.00)

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 docfeedback@hpe.com.

We appreciate your feedback!