

HP Operations Smart Plug-in for JBoss Application Server

for HP Operations Manager for Windows®

Software Version: 7.04

PDF version of the online help

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Document Release Date: January 2011

Software Release Date: January 2011



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HP Operations Smart Plug-in for JBoss Application Server

The HP Operations Smart Plug-in for JBoss Application Server (JBoss AS SPI) enables you to manage JBoss Application Servers from an HP Operations Manager for Windows (HPOM) console. From the HPOM for Windows console, you can monitor the availability, use, and performance of JBoss Application Servers running on HPOM managed nodes. You can integrate JBoss AS SPI with other HP Software products like HP Performance Manager to get consolidated graphs which help you analyze trends in server usage, availability, and performance.

The JBoss AS SPI extends the capabilities of HPOM by adding the following monitoring capabilities:

- Availability Monitoring
- Resource Monitoring
- Process Monitoring

The JBoss AS SPI messaging, reporting, and action-executing capabilities are based on the HPOM concept of policies. The settings within these policies define various conditions which may occur within the JBoss Application Server and enable information to be sent back to the HPOM management server. As a result, you can proactively address potential or existing problems and avoid serious disruptions to web transaction processing.

Related Topics:

- Getting Started
- Components
- Graphs

Getting Started

Install the HP Operations Manager (HPOM) management server and discovery package before installing JBoss AS SPI. It is not necessary to stop HPOM sessions before beginning the JBoss AS SPI installation.

Install and configure the HP Operations Smart Plug-in for JBoss Application Server (JBoss AS SPI). For the installation and configuration steps, read the *HP Operations Smart Plug-in for JBoss Application Server Installation and Configuration Guide* located on the HP Operations Smart Plug-ins DVD, in the file `\Documentation\SPI Guides\JBoss_AppServer_Install_Config.pdf`.

Related Topics:

- Overview
- Components
- Graphs

Components

The Smart Plug-in for JBoss Application Server (JBoss AS SPI) components include:

- **Tools** : JBoss AS SPI configuration tools enable you to configure the management server's connection to named server instances on specific managed nodes. After you have configured the connection, you can deploy policies to the nodes. With HP Operations agent software running on the managed nodes, you can use JBoss AS SPI reporting tools to generate metric reports.
- **Policies** : JBoss AS SPI consists of policies and instrumentation (binaries or scripts), which monitor the JBoss Application Server. Monitoring consists of alarms related to critical events of the tool, and logging important performance metrics of the application server. The metrics that are logged can be used to create graphs and reports.
- **Graphs** : The SPI package contains the default graphing policies provided by the SPI. Graphs are drawn from metrics that are collected in the datasources created by the SPI. The graphs help you analyze trends in server usage, availability, and performance. For details on integrating the JBoss AS SPI with HP Performance Manager to get consolidated graphs, see *HP Operations Smart Plug-in for JBoss Application Server Installation and Configuration Guide*.

These components enable you to configure and receive data in the form of messages, annotations, and metric reports. These messages (available in the Message Browser), annotations (available through message properties), and metric reports (available through tools) provide you with information about conditions present in the server(s) running on specific managed nodes.

Related Topics:

- Tools
- Policies
- Graphs
- Getting Started

Graphs

Graphs are drawn from metrics that are logged in the datasources created by the SPI.

In operator-initiated graphs, the Smart Plug-in for JBoss Application Server (JBoss AS SPI) provides a limited version of HP Performance Manager graphs. These graphs show consolidated data on server performance and availability on all JBoss Application Server systems.

Graphs are:

- generated at the time they are run.
- are available after installing JBoss Application Server SPI (the "SPI for JBoss Application Server" folder is available), but display an error message if they are run before data has been collected.

JBoss AS SPI can be integrated with HP Performance Manager (must be purchased separately) to provide additional graphing flexibility and capabilities.

For more information about integrating JBoss AS SPI with HP Performance Manager, see the *HP Operations Smart Plug-in for JBoss Application Server Installation and Configuration Guide* located on the HP Operations Smart Plug-ins DVD, in the file

`\Documentation\SPI Guides\JBoss_AppServer_Install_Config.pdf`.

The following tables show the graphs available for mapping collected metric values. Use HP Performance Manager to view any one of the metrics included in any of these tables.

JVM

Metric Name	Metric Description
S005_JVMHeapMmPctUtl	Percentage utilization of JVM Heap

Thread Pools

Metric Name	Metric Description
S003_SysThdPolPctUtl	Percentage utilization of current JBoss System Thread Pool
S004_JCAThdPolPctUtl	Percentage utilization of current JCA WorkManager Thread Pool

Transactions (JTA)

Metric Name	Metric Description
--------------------	---------------------------

S002_TrnRollbackRt	Number of transactions rolled back per second
--------------------	---

Servlets

Metric Name	Metric Description
--------------------	---------------------------

S006_AllSrvAvgExTime	Average response time of a servlet (in seconds) over the collection interval.
----------------------	---

JCA Connections

Metric Name	Metric Description
--------------------	---------------------------

S007_JCAConPolPctUtl	Percentage utilization of JCA connection pool
S008_JCAConPoolWtCnt	Number of threads waiting for a connection from JCA pool
S009_JCAConCrtRate	Number of new connections created in JCA pool per second
S010_JCAConClsRate	Number of connections closed in JCA pool per second
S011_JCAConnLeak	Number of leaked connections in JCA pool
S012_JCAConAvgWtTime	Average time spent waiting for a connection in JCA pool

Entity Bean

Metric Name	Metric Description
--------------------	---------------------------

S015_EntityBnCrtRate	Number of Entity Beans created per second
S016_EntityBnRmRate	Number of Entity Beans removed per second
S017_EntityBnPolCnt	Number of Entity Beans available in pool
S018_EntityBnReadySt	Number of Entity Beans in ready state

Message Driven Bean

Metric Name	Metric Description
--------------------	---------------------------

S019_MsgDrvBnCrtRate	Number of Message Driven Beans created per second
S020_MsgDrvBnRmRate	Number of Message Driven Beans removed per second
S021_MsgDrvBnMsgRcRt	Number of messages received by a Message Driven Bean per second

Stateful Session Bean

Metric Name	Metric Description
S022_StfulSesBnCrtRt	Number of Stateful Session Beans created per second
S023_StfulSesBnPasRt	Number of Stateful Session Beans passivated per second

Stateless Session Bean

Metric Name	Metric Description
S024_StlesSesBnCrtRt	Number of Stateless Session Beans created per second

JMS

Metric Name	Metric Description
S025_JMSTotlPndgMsgs	Number of JMS pending messages in a session
S026_JMSNewPndgMsgss	New pending JMS messages in a session over collection interval
S027_JMSTotlExprMsgs	Number of expired JMS messages in a session
S028_JMSNewExprMsgs	New expired JMS messages in a session over collection interval
S029_JMSMsgExchCnt	Number of JMS messages exchanged in a session
S030_JMSMsgAvgWtTime	Average time spent by a JMS message in a session before being delivered
S031_JMSPTtlPndgMsgs	Number of pending JMS messages for a producer
S032_JMSPNewPndgMsgs	New pending JMS messages for a producer over collection interval
S033_JMSPTtlExprMsgs	Number of expired JMS messages for a producer
S034_JMSPNewExprMsgs	New expired JMS messages for a producer over collection interval
S035_JMSPMsgSentCnt	Number of JMS messages sent by a producer
S036_JMSPMsgAvgWtTime	Average time spent by a JMS message before being delivered to a producer
S037_JMSCTtlPndgMsgs	Number of pending JMS messages for a consumer
S038_JMSCNewPndgMsgs	New pending JMS messages for a consumer over collection interval
S039_JMSCTtlExprMsgs	Number of expired JMS messages for a consumer
S040_JMSCNewExprMsgs	New expired JMS messages for a consumer over collection interval
S041_JMSCMsgRecvdCnt	Number of JMS messages received by a consumer
S042_JMSCMsgAvgWtTime	Average time spent by a JMS message before being received by a consumer

Related Topics:

- [Data Store Details for Graphs](#)
- [Tools](#)
- [Policies](#)

Data Store Details for Graphs

The JBoss AS SPI creates the following data store details for graphs for JBoss Application Server.

Graph Name	Policy Logging Data	Spec File	Data StoreData Class
Transaction Rollback Percent	JBSSPI_0002 JBSSPI-05min		
	JBSSPI_0003 JBSSPI-05min		
JCA Performance	JBSSPI_0004 JBSSPI-05min		
JVM Utilization	JBSSPI_0005		
Servlet Session Activity	JBSSPI_0006 JBSSPI-05min		
JCA Performance	JBSSPI_0007 JBSSPI-05min		
	JBSSPI_0008 JBSSPI-05min		
	JBSSPI_0009 JBSSPI-05min		
	JBSSPI_0010		
	JBSSPI_0011		
	JBSSPI_0012		
EJB Performance	JBSSPI_0015		
	JBSSPI_0016		
	JBSSPI_0017		

	JBSSPI_0018		
EJB MessageDrivenBean Activity	JBSSPI_0019	wasspi_jbs_graph.sp	wasspi_jbs_graph
	JBSSPI_0020		
	JBSSPI_0021		
EJB StatefulSessionBean Activity	JBSSPI_0022		
	JBSSPI_0023		
EJB StatelessSessionBean Activity	JBSSPI_0024		
JMS Session Activity	JBSSPI_0025		
	JBSSPI_0026		
	JBSSPI_0027		
	JBSSPI_0028		
	JBSSPI_0029		
	JBSSPI_0030		
JMS Producer Performance	JBSSPI_0031		
	JBSSPI_0032		
	JBSSPI_0033		
	JBSSPI_0034		
	JBSSPI_0035		
	JBSSPI_0036		
JMS Consumer Performance	JBSSPI_0037		
	JBSSPI_0038		
	JBSSPI_0039		

JMS Consumer Performance	JBSSPI_0040	
	JBSSPI_0041	
	JBSSPI_0042	

Tools

The Smart Plug-in for JBoss Application Server (JBoss AS SPI) tools include the tools for administrating and operating the JBoss AS SPI.

From the HPOM console, select **Tools** → **SPI for JBoss Application Server** to access the tools which are divided into the following tool groups:

- SPI Admin tool group
- JBoss Server Admin tool group

Related Topics:

- Components
- Policies

SPI Admin tool group

The SPI Admin tool group consists of tools that enable you to perform the tasks related to JBoss AS SPI.

For a detailed description of the tools, click the tool name in the table below.

Tool	Description
Discover or Configure JBSSPI	Discovers the JBoss Application Server instances or Configures the JBoss AS SPI.
Create JBSSPI Node Groups	Creates JBSSPI node groups based on Discovered Services.
Self-Healing Info	Gathers the data needed for support.
Start Monitoring	Starts monitoring the SPI for JBoss Application Server only if the monitoring has been stopped using the Stop Monitoring tool.
Start Tracing	Starts tracing. The gathered tracing information is used by your HP support representative.
Stop Monitoring	Stops monitoring the SPI for JBoss Application Server.
Stop Tracing	Stops tracing. The gathered tracing information is used by your HP support representative.
Verify	Verifies whether all the instrumentation files are properly deployed.
View Error Files	View the JBoss AS SPI internal log file.

Related Topics:

- JBoss Server Admin Tool Group

Create JBSSPI Node Groups

The tool Create JBSSPI Node Groups enables you to create SPI for JBoss Application Server node groups that contains all the managed nodes running supported versions of JBoss AS. Node groups are created based on discovered services.

If new managed nodes are added, run this tool again to add these managed nodes to the SPI for JBoss Application Server node groups.

Function

Create JBSSPI Node Groups performs the following functions:

- Creates the SPI for JBoss Application Server node group in the Nodes folder.
- Places all HPOM managed nodes running JBoss AS in the SPI for JBoss Application Server node group.
- Assigns tools and graphs to the nodes and node groups.

To launch Create JBSSPI Node Groups tool

1. From the HPOM console, select **Tools → SPI for JBoss Application Server → SPI Admin**.
2. Double-click **Create JBSSPI Node Groups**.
The "Tool Status" window opens.
3. In the Launched Tools field, check the Status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - JBoss AS SPI has successfully created the node groups. Scroll to the bottom of the Tool Output field. The message "Done" displays.
 - Failed - The tool did not succeed. Scroll through the Tool Output field for more information about the problem.
4. Click **Close** to close the "Tool Status" window.
5. To verify the node group has been created, select **Nodes → SPI for JBoss Application Server**.

Discover or Configure JBSSPI

The tool Discover or Configure JBSSPI enables you to identify instances of a JBoss Application Server on a managed node monitored by the JBoss AS SPI and displays the status in the HPOM console Service map (on selecting the Launch Discover Tool option) or enables you to maintain the JBoss AS SPI configuration by viewing, editing, or setting configuration properties in the configuration editor (on selecting the Launch Configure Tool Option).

Function

The following functions are performed by running the Discover tool:

- Identifies instances of a JBoss Application Server on a managed node
- Enables the JBoss AS SPI to detect the servers hosted on a managed node
- Displays the following information for the different instances of JBoss Application Server in the HPOM console Service map:
 - J2EE components hosted on the server
 - Version
 - Port number
 - Name of the server
- Deploys the JBSSPI-Discovery and JBSSPI-Messages policies and JBOSS instrumentation file on the selected managed node(s).

The following functions are performed by running the Configure tool:

- Updates the configuration on the HPOM management server and selected managed nodes.
- Creates the directories and files required by JBoss AS SPI on the selected managed nodes.
- Sets up data sources for graphing.
- Sets up the JBoss AS log files and JBoss AS SPI error log file for monitoring.

Configuration information for all JBoss AS instances on all HPOM managed nodes is maintained on the HPOM management server. In addition, every managed node maintains information about JBoss Application Servers running on that node.

When you make changes using the configuration editor, the changes are saved on the HPOM management server. However, if you select a node and launch the tool, the changes affecting the selected node are saved on that node itself.

To save any changes on a managed node, you must select the node before launching the tool. By default, the changes are saved on the management server if the node is not selected.

To launch Discover or Configure JBSSPI

To launch the Discover or Configure JBSSPI tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Discover or Configure JBSSPI** .
3. Select the managed nodes on which you want to launch the tool.
4. Click **Launch** .

The "Tool Selector" window opens.

5. To run the discovery, select the Launch Discover Tool radio button and click **OK** . To run the configuration, select the Launch Configure Tool radio button and click **OK** . By default, the Launch Configure Tool radio button is selected.

See *HP Operations Smart Plug-in for JBoss Application Server Installation and Configuration Guide for Windows* for more information on how to launch Discover or Configure JBSSPI tool.

Self-Healing Info

The tool Self-Healing Info gathers SPI troubleshooting data and stores it in a file which you can submit to HP support for assistance.

Function

The tool Self-Healing Info performs the following functions:

- Saves the data in the following file:
 - On a UNIX managed node: `/tmp/JBossEAP_support.tar`
 - On a Windows managed node: `JBossEAP_support.zip` in `%TEMP%` directory

To launch Self-Healing Info

To launch the Self-Healing Info tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin**.
2. Double-click **Self-Healing Info**.
3. Select the managed nodes for which you want to gather the data.
4. Click **Launch**.

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - The data is successfully gathered.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Gather the location of the collected data from the Tool Output field.
7. Send the collected data to your HP support representative.
8. Click **Close** to close the "Tool Status" window.

Start Monitoring

The tool Start Monitoring enables you to start the collection of metrics for JBoss Application Server(s) on a managed node only if the monitoring has been stopped using the Stop Monitoring tool.

Function

The Start Monitoring tool starts the collection of metrics for JBoss Application Server(s) on a managed node.

By default, monitoring is on.

To launch Start Monitoring

To launch the Start Monitoring tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Start Monitoring** .
3. Select the managed nodes on which you want to start the collection of metrics for JBoss Application Server(s).
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - The collection of metrics is successfully started.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

Start Tracing

The tool Start Tracing starts logging the information about each of the activity performed by the SPI on the managed node. Launch this tool only when instructed by your HP support representative.

Function

Start Tracing tool saves information about each of the activity performed by the SPI on the managed node into a file.

To launch Start Tracing

To launch the Start Tracing tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Start Tracing** .
3. Select the managed nodes for which you want to start the tracing.
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - Tracing is successfully started.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

Stop Monitoring

The tool Stop Monitoring enables you to stop the collection of metrics for one or more application servers on a managed node.

Function

The Stop Monitoring tool stops the collection of metrics for JBoss Application Server(s) on a managed node.

By default, monitoring is on.

To launch Stop Monitoring

To launch the Stop Monitoring tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Stop Monitoring** .
3. Select the managed nodes on which you want to stop the collection of metrics for JBoss Application Server(s).
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - The collection of metrics is successfully stopped.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

Stop Tracing

The tool Stop Tracing stops logging the information about each of the activity performed by the SPI on the managed node. Launch this tool only when instructed by your HP support representative.

Function

Stop Tracing tool stops saving the information about each of the activity performed by the SPI on the managed node.

To launch Stop Tracing

To launch the Stop Tracing tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Stop Tracing** .
3. Select the managed nodes for which you want to stop the tracing.
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - Tracing is successfully stopped.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

Verify

The tool Verify enables you to verify whether all the instrumentation files are properly deployed.

Function

The Verify tool verifies whether all the instrumentation files are properly deployed. It gives a list of missing instrumentation files.

To launch Verify

To launch the Verify tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Verify** .
3. Select the managed nodes for which you want to verify the installation.
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - The verification is successfully completed.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

View Error Files

The tool View Error Files enables you to view the contents of the JBoss AS SPI internal log file.

Function

View Error Files displays the contents of the JBoss AS SPI internal log file

<OvAgentDir>/wasspi/jbs/log/errorlog ,

where <OvAgentDir> typically is:

- On UNIX managed nodes: /var/opt/OV
- On Windows Managed Nodes: \Program Files\HP\HP BTO Software\ (for HTTPS managed nodes)

To launch View Error Files

To launch the View Error Files tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **View Error Files** .
3. Select the managed nodes on which you want to view the internal error logs.
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - You can view the JBoss AS SPI internal log file.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

JBoss Server Admin tool group

The JBoss Server Admin tool group consists of tools that enable you to perform the tasks related to JBoss Application Server.

For a detailed description of the tools, click the tool name in the table below.

Tool	Description
JBoss Server Status	Status for the JBoss Application Server process.
Start JBoss Server	Starts the JBoss Application Server process.
Stop JBoss Server	Stops the JBoss Application Server process.
View JBoss Logs	View the JBoss Application Server log file.

Related Topics:

- [SPI Admin Tool Group](#)

JBoss Server Status

The tool JBoss Server Status enables you to find the status of JBoss Application Servers from the HPOM console.

Function

The tool JBoss Server Status finds the following information for each JBoss Application Server on the selected managed nodes:

Server Name	The server name as defined in the JBoss Application Server
Server State	The status of the JBoss Application Server
Start Date	The date when the JBoss Application Server was started

To launch JBoss Server Status

To launch the JBoss Server Status tool, perform these steps:

1. From the HPOM console for Windows, select **Tools → SPI for JBoss Application Server → SPI Admin** .
2. Double-click **JBoss Server Status** .
3. Select the managed nodes for which you want to find the status of the JBoss Application Server(s).
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - The status is successfully found.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

Start JBoss Server

The tool Start JBoss Server enables you to start JBoss Application Servers from the HPOM console.

Function

The tool Start JBoss Server starts one or more JBoss Application Servers on the selected managed nodes.

To launch Start JBoss Server

To launch the Start JBoss Server tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Start JBoss Server** .
3. Select the managed nodes on which you want to start the JBoss Application Server(s).
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - The JBoss Application Server(s) is successfully started.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

Stop JBoss Server

The tool Stop JBoss Server enables you to stop JBoss Application Servers from the HPOM console.

Function

The tool Stop JBoss Server stops one or more JBoss Application Servers on the selected managed nodes.

To launch Stop JBoss Server

To launch the Stop JBoss Server tool, perform these steps:

1. From the HPOM console for Windows, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **Stop JBoss Server** .
3. Select the managed nodes on which you want to stop the JBoss Application Server(s).
4. Click **Launch** .

The "Tool Status" window opens.

5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - The JBoss Application Server(s) is successfully stopped.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

View JBoss Logs

The tool View JBoss Logs enables you to select a JBoss Application Server log file for viewing without logging on to the system on which the JBoss Application Server is running.

Function

The tool View JBoss Logs displays the content of the log file (server.log) for all the application servers running on the selected managed nodes.

To launch View JBoss Logs

1. From the HPOM console, select **Tools** → **SPI for JBoss Application Server** → **SPI Admin** .
2. Double-click **View JBoss Logs** .
3. Select the managed nodes on which you want to view the JBoss Application Server log file.
4. Click **Launch** .
The "Tool Status" window opens.
5. Check the status of the tool for each node:
 - Started/Starting - The tool is running.
 - Succeeded - A list of available log files to view appears.
 - Failed - The tool did not succeed.

Scroll through the Tool Output field for more information.

6. Click **Close** to close the "Tool Status" window.

Policies

JBoss AS SPI consists of policies and instrumentation (binaries or scripts), which monitor the JBoss Application Server. Monitoring consists of alarms related to critical events of the tool, and logging important performance metrics of the application server. The metrics that are logged can be used to create graphs.

The SPI for JBoss Application Server policy group contains policies grouped into two broad categories:

- **JBSSPI**
- **JBSSPI Discovery**

The JBSSPI policy group contains the following policy sub-groups and individual policies.

- **JBSSPI-Logfiles** : Contains policy that monitors the information logged in JBoss Application Server log file and generates messages based on it.
- **JBSSPI-Metrics** : Contains metric policies that monitor the performance levels and availability of a JBoss Application Server.
Each metric policy determines the threshold conditions for the monitored metric, the message text that is sent to the HPOM message browser when the threshold is exceeded, the actions to execute, and instructions that appear.
- **JBSSPI-Monitors** : Contains collector policies that specify the collection interval of metric policies. Within the name of each collector policy is its collection interval.
Each collector policy controls when and what metrics are collected. The collector policy performs the following actions:
 - Runs the collector/analyzer at each collection interval
 - Specifies which metrics are collected

Related Topics:

- Components
- Tools

Metrics

JBoss AS SPI metric policies have pre-defined settings which simplify setup tasks for the JBoss AS SPI. However, you might want to customize these settings depending on your environment. The basic information required for customizing the metric policies is provided.

The following attributes are present in a metric:

Attribute	Description
Metric id	Begins always with 'JBSSPI,' followed by the metric id. Within the monitor policy, you can change the settings. For example, you can change the settings for threshold value or severity.
Metric Name	The name assigned to the metric. It follows the format SXXX_Metric Name. XXX is the last three numbers of the metric id.
Metric Type	Shows how the metric is used, such as: <ul style="list-style-type: none"> • Alarming (using policy settings) • Graphing (within a graph of the separately purchased HP Performance Manager)
Policy Description	What the metric represents.
Severity	The severity of the exceeded threshold condition. (Critical, Major, Minor, Warning, Normal). If multiple conditions—for example, graduated thresholds—are defined within the metric, severity levels are identified according to the specific condition.
Message Group	The HPOM message group to which the metric belongs.
Message	The message displayed for each condition.
Instructions	Problem-solving information (Probable causes, Potential impact, and Suggested actions).

The JBSSPI Metrics Policy Group contains the following policies:

1 - 10	11 - 23	24 - 33	34 - 42
JBSSPI_0001	JBSSPI_0011	JBSSPI_0024	JBSSPI_0034
JBSSPI_0002	JBSSPI_0012	JBSSPI_0025	JBSSPI_0035
JBSSPI_0003	JBSSPI_0015	JBSSPI_0026	JBSSPI_0036
JBSSPI_0004	JBSSPI_0016	JBSSPI_0027	JBSSPI_0037
JBSSPI_0005	JBSSPI_0017	JBSSPI_0028	JBSSPI_0038
JBSSPI_0006	JBSSPI_0018	JBSSPI_0029	JBSSPI_0039
JBSSPI_0007	JBSSPI_0019	JBSSPI_0030	JBSSPI_0040
JBSSPI_0008	JBSSPI_0020	JBSSPI_0031	JBSSPI_0041
JBSSPI_0009	JBSSPI_0021	JBSSPI_0032	JBSSPI_0042
JBSSPI_0010	JBSSPI_0022	JBSSPI_0033	
	JBSSPI_0023		

Related Topics:

- [JBoss AS SPI Golden Metrics](#)
- [Data Store Metrics for JBoss AS SPI](#)
- [JBSSPI Logfiles](#)
- [JBSSPI Policies](#)

Golden Metrics

Golden metrics are a set of metrics which monitor the basic functionality of your JBoss Application Server. The golden metrics cover the critical areas (such as server status) for which you would like to receive messages as a critical or major event happens on the JBoss Application Server. Implementing golden metrics and taking action against the events generated by these metrics ensure the smooth functioning of the JBoss Application Server.

The JBoss AS SPI contains the following golden metrics:

Metric Type	Metric ID	Metric Name
Availability	JBSSPI_0001	S001_ServerStatus
Transactions	JBSSPI_0002	S002_TransRollbackRt
ThreadPool	JBSSPI_0003	S003_SysThdPolPctUtl
JCA	JBSSPI_0004	S004_JCAThdPolPctUtl
	JBSSPI_0007	S007_JCAConPolPctUtl
JVM	JBSSPI_0005	S005_JVMHeapMmPctUtl
JMS	JBSSPI_0025	S025_JMSTotlPndgMsgs
	JBSSPI_0031	S031_JMSPTtlPndgMsgs
	JBSSPI_0037	S037_JMSCTtlPndgMsgs

Related Topics:

- JBSSPI Metrics
- Data Store Metrics for JBoss AS SPI
- JBSSPI Logfiles
- JBSSPI Policies

JBSSPI_0001

Metric ID	JBSSPI_0001
Metric Name	S001_ServerStatus
Metric Type	Alarming
Policy Description	Status of a server, monitors whether running or not.
Severity	JBSSPI-8001.1: Critical, threshold, 0.5 JBSSPI-8001.2: Normal
Message Group	JBoss
Message	JBSSPI-8001.1: JBoss Server is not running. JBSSPI-8001.2: JBoss Server is now running.
Instructions	<p>Probable Cause: For each server, this metric will report if the status 'InShutdown' is true.</p> <p>If the server is either shutting down or not in a running state, the following events may have occurred:</p> <ul style="list-style-type: none"> • The Administrator has shut the server down. • The server may have gone down for other reasons. <p>Potential Impact: If the server is Shutdown or in the process of shutting down, the server will no longer be available.</p> <p>Suggested action: The Administrator has to bring the server up.</p>

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0002

Metric ID	JBSSPI_0002
Metric Name	S002_TransRollbackRt
Metric Type	Alarming and Graphing
Policy Description	Number of transactions rolled back per second
Severity	JBSSPI-8002.11: Critical, threshold, 8.0 JBSSPI-8002.21: Normal JBSSPI-8002.12: Major, threshold, 5.0 JBSSPI-8002.22: Normal JBSSPI-8002.13: Warning, threshold, 2.0 JBSSPI-8002.23: Normal
Message Group	JBoss
Message	JBSSPI-8002.11: JBoss transaction roll back rate critical threshold overshoot condition has occurred. JBSSPI-8002.21: JBoss transaction roll back rate critical threshold overshoot condition is gone. JBSSPI-8002.12: JBoss transaction roll back rate major threshold overshoot condition has occurred. JBSSPI-8002.22: JBoss transaction roll back rate major threshold overshoot condition is gone. JBSSPI-8002.13: JBoss transaction roll back rate warning threshold overshoot condition has occurred. JBSSPI-8002.23: JBoss transaction roll back rate warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. One or few transactions are lacking ACID properties. 2. The transaction manager and recoverable resources are not able to communicate. <p>Potential Impact: Rolled back transaction may cause all dependent transactions to fail.</p>

Suggested action:

1. Analyze the heuristic exceptions thrown by the JTA component.
2. Look for ApplicationDeadlockException thrown.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0003

Metric ID	JBSSPI_0003
Metric Name	S003_SysThdPolPctUtl
Metric Type	Alarming and Graphing
Policy Description	Percentage utilization of current JBoss System Thread Pool
Severity	JBSSPI-8003.11: Critical, threshold, 90.0 JBSSPI-8003.21: Normal JBSSPI-8003.12: Major, threshold, 85.0 JBSSPI-8003.22: Normal JBSSPI-8003.13: Warning, threshold, 75.0 JBSSPI-8003.23: Normal
Message Group	JBoss
Message	JBSSPI-8003.11: JBoss system thread pool percentage utilization critical threshold overshoot condition has occurred. JBSSPI-8003.21: JBoss system thread pool percentage utilization critical threshold overshoot condition is gone. JBSSPI-8003.12: JBoss system thread pool percentage utilization major threshold overshoot condition has occurred. JBSSPI-8003.22: JBoss system thread pool percentage utilization major threshold overshoot condition is gone. JBSSPI-8003.13: JBoss system thread pool percentage utilization warning threshold overshoot condition has occurred. JBSSPI-8003.23: JBoss system thread pool percentage utilization warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Small Thread pool size is chosen.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Thread pool saturation condition may occur. 2. CPU utilization may consistently keep shooting up.

Suggested action:

1. To fix a saturated thread pool, keep changing the thread pool size in steps until CPU utilization reaches between 75 and 85 percent.
2. Tune the application using a code profiling tool.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0004

Metric ID	JBSSPI_0004
Metric Name	S004_JCAThdPolPctUtl
Metric Type	Alarming and Graphing
Policy Description	Percentage utilization of current JCA WorkManager Thread Pool
Severity	JBSSPI-8004.11: Critical, threshold, 90.0 JBSSPI-8004.21: Normal JBSSPI-8004.12: Major, threshold, 85.0 JBSSPI-8004.22: Normal JBSSPI-8004.13: Warning, threshold, 75.0 JBSSPI-8004.23: Normal
Message Group	JBoss
Message	JBSSPI-8004.11: JBoss WorkManager thread pool percentage utilization critical threshold overshoot condition has occurred. JBSSPI-8004.21: JBoss WorkManager thread pool percentage utilization critical threshold overshoot condition is gone. JBSSPI-8004.12: JBoss WorkManager thread pool percentage utilization major threshold overshoot condition has occurred. JBSSPI-8004.22: JBoss WorkManager thread pool percentage utilization major threshold overshoot condition is gone. JBSSPI-8004.13: JBoss WorkManager thread pool percentage utilization warning threshold overshoot condition has occurred. JBSSPI-8004.23: JBoss WorkManager thread pool percentage utilization warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Small thread pool size is chosen for WorkManager Thread Pool.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Thread pool saturation condition may occur. 2. CPU utilization may consistently keep shooting up.

Suggested action:

1. To fix a saturated thread pool, keep changing the thread pool size in steps until CPU utilization reaches between 75 and 85 percent.
2. Tune the application using a code profiling tool.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0005

Metric ID	JBSSPI_0005
Metric Name	S005_JVMHeapMmPctUtl
Metric Type	Alarming and Graphing
Policy Description	Percentage utilization of JVM Heap
Severity	JBSSPI-8005.11: Critical, threshold, 90.0 JBSSPI-8005.21: Normal JBSSPI-8005.12: Major, threshold, 80.0 JBSSPI-8005.22: Normal JBSSPI-8005.13: Warning, threshold, 70.0 JBSSPI-8005.23: Normal
Message Group	JBoss
Message	JBSSPI-8005.11: JVM Heap percentage utilization critical threshold overshoot condition has occurred. JBSSPI-8005.21: JVM Heap percentage utilization critical threshold overshoot condition is gone. JBSSPI-8005.12: JVM Heap percentage utilization major threshold overshoot condition has occurred. JBSSPI-8005.22: JVM Heap percentage utilization major threshold overshoot condition is gone. JBSSPI-8005.13: JVM Heap percentage utilization warning threshold overshoot condition has occurred. JBSSPI-8005.23: JVM Heap percentage utilization warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. JVM garbage collection is not running at regular intervals. 2. Connection pool size is set to small value leading to creation of heavy connection objects. <p>Potential Impact: Applications response time may increase drastically.</p>

Suggested action:

1. Verify thread pool size set.
2. Verify connection pool size set.
3. Verify JVM heap size set.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0006

Metric ID	JBSSPI_0006
Metric Name	S006_AllSrvAvgExTime
Metric Type	Alarming and Graphing
Policy Description	Average response time of a servlet (in secs)
Severity	JBSSPI-8006.11: Critical, threshold, 4.0 JBSSPI-8006.21: Normal JBSSPI-8006.12: Major, threshold, 3.0 JBSSPI-8006.22: Normal JBSSPI-8006.13: Warning, threshold, 2.0 JBSSPI-8006.23: Normal
Message Group	JBoss
Message	JBSSPI-8006.11: Average servlet execution time critical threshold overshoot condition has occurred. JBSSPI-8006.21: Average servlet execution time critical threshold overshoot condition is gone. JBSSPI-8006.12: Average servlet execution time major threshold overshoot condition has occurred. JBSSPI-8006.22: Average servlet execution time major threshold overshoot condition is gone. JBSSPI-8006.13: Average servlet execution time warning threshold overshoot condition has occurred. JBSSPI-8006.23: Average servlet execution time warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. JVM garbage collection is running frequently slowing the applications. 2. Thread pool size is set to small value. 3. Connection pool size is set to small value. <p>Potential Impact: Applications response time may increase drastically.</p>

Suggested action:

1. Verify thread pool size set.
2. Verify connection pool size set.
3. Verify JVM heap size set.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0007

Metric ID	JBSSPI_0007
Metric Name	S007_JCAConPolPctUtl
Metric Type	Alarming and Graphing
Policy Description	Percentage utilization of JCA connection pool
Severity	JBSSPI-8007.11: Critical, threshold, 90.0 JBSSPI-8007.21: Normal JBSSPI-8007.12: Major, threshold, 85.0 JBSSPI-8007.22: Normal JBSSPI-8007.13: Warning, threshold, 75.0 JBSSPI-8007.23: Normal
Message Group	JBoss
Message	JBSSPI-8007.11: JBoss JCA connection pool percentage utilization critical threshold overshoot condition has occurred. JBSSPI-8007.21: JBoss JCA connection pool percentage utilization critical threshold overshoot condition is gone. JBSSPI-8007.12: JBoss JCA connection pool percentage utilization major threshold overshoot condition has occurred. JBSSPI-8007.22: JBoss JCA connection pool percentage utilization major threshold overshoot condition is gone. JBSSPI-8007.13: JBoss JCA connection pool percentage utilization warning threshold overshoot condition has occurred. JBSSPI-8007.23: JBoss JCA connection pool percentage utilization warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Small pool size is chosen for JCA connection pool.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Connection pool saturation condition may occur. 2. Applications may block on connection objects.

Suggested action: To fix a saturated connection pool, keep changing the pool size in steps until number of blocked applications is significantly reduced.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0008

Metric ID	JBSSPI_0008
Metric Name	S008_JCAConPoolWtCnt
Metric Type	Alarming and Graphing
Policy Description	Number of threads waiting for a connection from JCA pool
Severity	JBSSPI-8008.11: Critical, threshold, 15.0 JBSSPI-8008.21: Normal JBSSPI-8008.12: Major, threshold, 10.0 JBSSPI-8008.22: Normal JBSSPI-8008.13: Warning, threshold, 5.0 JBSSPI-8008.23: Normal
Message Group	JBoss
Message	JBSSPI-8008.11: Thread count awaiting a connection in JCA pool critical threshold overshoot condition has occurred. JBSSPI-8008.21: Thread count awaiting a connection in JCA pool critical threshold overshoot condition is gone. JBSSPI-8008.12: Thread count awaiting a connection in JCA pool major threshold overshoot condition has occurred. JBSSPI-8008.22: Thread count awaiting a connection in JCA pool major threshold overshoot condition is gone. JBSSPI-8008.13: Thread count awaiting a connection in JCA pool warning threshold overshoot condition has occurred. JBSSPI-8008.23: Thread count awaiting a connection in JCA pool warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Small JCA connection pool cache size is chosen.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Applications may respond slow. 2. Applications may block on connection objects. 3. Application deadlock situation may arise.

Suggested action: Increase JCA connection pool cache size.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0009

Metric ID	JBSSPI_0009
Metric Name	S009_JCAConCrtRate
Metric Type	Alarming and Graphing
Policy Description	Number of new connections created in JCA pool per second
Severity	JBSSPI-8009.11: Critical, threshold, 15.0 JBSSPI-8009.21: Normal JBSSPI-8009.12: Major, threshold, 10.0 JBSSPI-8009.22: Normal JBSSPI-8009.13: Warning, threshold, 5.0 JBSSPI-8009.23: Normal
Message Group	JBoss
Message	JBSSPI-8009.11: Connection creation rate (per sec) in JCA pool critical threshold overshoot condition has occurred. JBSSPI-8009.21: Connection creation rate (per sec) in JCA pool critical threshold overshoot condition is gone. JBSSPI-8009.12: Connection creation rate (per sec) in JCA pool major threshold overshoot condition has occurred. JBSSPI-8009.22: Connection creation rate (per sec) in JCA pool major threshold overshoot condition is gone. JBSSPI-8009.13: Connection creation rate (per sec) in JCA pool warning threshold overshoot condition has occurred. JBSSPI-8009.23: Connection creation rate (per sec) in JCA pool warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. Pooled connections are not getting reused. 2. Count of free connections is low. <p>Potential Impact: Applications may respond slowly.</p> <p>Suggested action:</p>

- | | |
|--|--|
| | <ol style="list-style-type: none">1. Reconfigure JCA connection pool cache size.2. Recycle Connection Pool. |
|--|--|

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0010

Metric ID	JBSSPI_0010
Metric Name	S010_JCAConClsRate
Metric Type	Alarming and Graphing
Policy Description	Number of connections closed in JCA pool per second
Severity	JBSSPI-8010.11: Critical, threshold, 15.0 JBSSPI-8010.21: Normal JBSSPI-8010.12: Major, threshold, 10.0 JBSSPI-8010.22: Normal JBSSPI-8010.13: Warning, threshold, 5.0 JBSSPI-8010.23: Normal
Message Group	JBoss
Message	JBSSPI-8010.11: Connection closing rate (per sec) in JCA pool critical threshold overshoot condition has occurred. JBSSPI-8010.21: Connection closing rate (per sec) in JCA pool critical threshold overshoot condition is gone. JBSSPI-8010.12: Connection closing rate (per sec) in JCA pool major threshold overshoot condition has occurred. JBSSPI-8010.22: Connection closing rate (per sec) in JCA pool major threshold overshoot condition is gone. JBSSPI-8010.13: Connection closing rate (per sec) in JCA pool warning threshold overshoot condition has occurred. JBSSPI-8010.23: Connection closing rate (per sec) in JCA pool warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. Applications are closing connections instead of returning those back to pool. 2. Connection pool recycling is taking place often. <p>Potential Impact: Applications may respond slowly.</p> <p>Suggested action:</p>

- | | |
|--|--|
| | <ol style="list-style-type: none">1. Verify application logic to return connection object back to pool.2. Reconfigure connection pool recycling interval. |
|--|--|

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0011

Metric ID	JBSSPI_0011
Metric Name	S011_JCAConnLeak
Metric Type	Alarming and Graphing
Policy Description	Number of leaked connections in JCA pool
Severity	JBSSPI-8011.11: Critical, threshold, 2.0 JBSSPI-8011.21: Normal JBSSPI-8011.12: Major, threshold, 1.0 JBSSPI-8011.22: Normal
Message Group	JBoss
Message	JBSSPI-8011.11: JCA connection leak critical threshold overshoot condition has occurred. JBSSPI-8011.21: JCA connection leak critical threshold overshoot condition is gone. JBSSPI-8011.12: JCA connection leak major threshold overshoot condition has occurred. JBSSPI-8011.22: JCA connection leak major threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Application is neither closing connection nor returning back to pool after use.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Pool utilization may come down gradually with further leaks. 2. Valid connection objects may fail to get created. 3. Applications may respond slowly. <p>Suggested action: Verify application logic to return connection object back to pool.</p>

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0012

Metric ID	JBSSPI_0012
Metric Name	S012_JCAConAvgWtTime
Metric Type	Alarming and Graphing
Policy Description	Average time spent waiting for a connection in JCA pool
Severity	JBSSPI-8012.11: Critical, threshold, 4.0 JBSSPI-8012.21: Normal JBSSPI-8012.12: Major, threshold, 3.0 JBSSPI-8012.22: Normal JBSSPI-8012.13: Warning, threshold, 2.0 JBSSPI-8012.23: Normal
Message Group	JBoss
Message	JBSSPI-8012.11: Avg wait time for JCA connection critical threshold overshoot condition has occurred. JBSSPI-8012.21: Avg wait time for JCA connection critical threshold overshoot condition is gone. JBSSPI-8012.12: Avg wait time for JCA connection major threshold overshoot condition has occurred. JBSSPI-8012.22: Avg wait time for JCA connection major threshold overshoot condition is gone. JBSSPI-8012.13: Avg wait time for JCA connection warning threshold overshoot condition has occurred. JBSSPI-8012.23: Avg wait time for JCA connection warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Small JCA connection pool cache size is chosen.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Applications may respond slowly. 2. Applications may block on connection objects. 3. Application deadlock situation may arise.

Suggested action: Increase JCA connection pool cache size.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0015

Metric ID	JBSSPI_0015
Metric Name	S015_EntityBnCrtrRate
Metric Type	Alarming and Graphing
Policy Description	Number of Entity Beans created per second
Severity	JBSSPI-8015.11: Critical, threshold, 15.0 JBSSPI-8015.21: Normal JBSSPI-8015.12: Major, threshold, 10.0 JBSSPI-8015.22: Normal JBSSPI-8015.13: Warning, threshold, 5.0 JBSSPI-8015.23: Normal
Message Group	JBoss
Message	JBSSPI-8015.11: Entity Bean creation rate critical threshold overshoot condition has occurred. JBSSPI-8015.21: Entity Bean creation rate critical threshold overshoot condition is gone. JBSSPI-8015.12: Entity Bean creation rate major threshold overshoot condition has occurred. JBSSPI-8015.22: Entity Bean creation rate major threshold overshoot condition is gone. JBSSPI-8015.13: Entity Bean creation rate warning threshold overshoot condition has occurred. JBSSPI-8015.23: Entity Bean creation rate warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. Not sufficient Entity Beans in pooled state. 2. Entity Bean pool size is set to small value. <p>Potential Impact:</p>

1. JVM Heap space may reduce rapidly.
2. Frequent JVM garbage collection calls.

Suggested action: Verify Entity Bean pool size set.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0016

Metric ID	JBSSPI_0016
Metric Name	S016_EntityBnRmRate
Metric Type	Alarming and Graphing
Policy Description	Number of Entity Beans removed per second
Severity	JBSSPI-8016.11: Critical, threshold, 15.0 JBSSPI-8016.21: Normal JBSSPI-8016.12: Major, threshold, 10.0 JBSSPI-8016.22: Normal JBSSPI-8016.13: Warning, threshold, 5.0 JBSSPI-8016.23: Normal
Message Group	JBoss
Message	JBSSPI-8016.11: Entity Bean removal rate critical threshold overshoot condition has occurred. JBSSPI-8016.21: Entity Bean removal rate critical threshold overshoot condition is gone. JBSSPI-8016.12: Entity Bean removal rate major threshold overshoot condition has occurred. JBSSPI-8016.22: Entity Bean removal rate major threshold overshoot condition is gone. JBSSPI-8016.13: Entity Bean removal rate warning threshold overshoot condition has occurred. JBSSPI-8016.23: Entity Bean removal rate warning threshold overshoot condition is gone.
Instructions	Probable Cause: Entity Beans in ready state do not represent valid rowset. Potential Impact: Sudden spike in Entity Bean creation rate may occur. Suggested action: Verify application business logic.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0017

Metric ID	JBSSPI_0017
Metric Name	S017_EntityBnPolCnt
Metric Type	Alarming and Graphing
Policy Description	Number of Entity Beans available in pool
Severity	JBSSPI-8017.11: Critical, threshold, 5.0 JBSSPI-8017.21: Normal JBSSPI-8017.12: Major, threshold, 10.0 JBSSPI-8017.22: Normal JBSSPI-8017.13: Warning, threshold, 15.0 JBSSPI-8017.23: Normal
Message Group	JBoss
Message	JBSSPI-8017.11: Pooled Entity Bean count critical threshold overshoot condition has occurred. JBSSPI-8017.21: Pooled Entity Bean count critical threshold overshoot condition is gone. JBSSPI-8017.12: Pooled Entity Bean count major threshold overshoot condition has occurred. JBSSPI-8017.22: Pooled Entity Bean count major threshold overshoot condition is gone. JBSSPI-8017.13: Pooled Entity Bean count warning threshold overshoot condition has occurred. JBSSPI-8017.23: Pooled Entity Bean count warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. Not sufficient Entity Beans in pooled state. 2. Entity Beans getting destroyed frequently. <p>Potential Impact: Application response time may increase.</p> <p>Suggested action: Verify Entity Bean removal rate.</p>

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0018

Metric ID	JBSSPI_0018
Metric Name	S018_EntityBnReadySt
Metric Type	Alarming and Graphing
Policy Description	Number of Entity Beans in ready state
Severity	JBSSPI-8018.11: Critical, threshold, 30.0 JBSSPI-8018.21: Normal JBSSPI-8018.12: Major, threshold, 40.0 JBSSPI-8018.22: Normal JBSSPI-8018.13: Warning, threshold, 55.0 JBSSPI-8018.23: Normal
Message Group	JBoss
Message	JBSSPI-8018.11: Ready Entity Bean count critical threshold overshoot condition has occurred. JBSSPI-8018.21: Ready Entity Bean count critical threshold overshoot condition is gone. JBSSPI-8018.12: Ready Entity Bean count major threshold overshoot condition has occurred. JBSSPI-8018.22: Ready Entity Bean count major threshold overshoot condition is gone. JBSSPI-8018.13: Ready Entity Bean count warning threshold overshoot condition has occurred. JBSSPI-8018.23: Ready Entity Bean count warning threshold overshoot condition is gone.
Instructions	Probable Cause: Entity Beans in ready state do not represent valid rowset. Potential Impact: Sudden spike in Entity Bean pooling rate may occur. Suggested action: Verify application business logic.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0019

Metric ID	JBSSPI_0019
Metric Name	S019_MsgDrvBnCrRate
Metric Type	Alarming and Graphing
Policy Description	Number of Message Driven Beans created per second
Severity	JBSSPI-8019.11: Critical, threshold, 15.0 JBSSPI-8019.21: Normal JBSSPI-8019.12: Major, threshold, 10.0 JBSSPI-8019.22: Normal JBSSPI-8019.13: Warning, threshold, 5.0 JBSSPI-8019.23: Normal
Message Group	JBoss
Message	JBSSPI-8019.11: Message Driven Bean creation rate critical threshold overshoot condition has occurred. JBSSPI-8019.21: Message Driven Bean creation rate critical threshold overshoot condition is gone. JBSSPI-8019.12: Message Driven Bean creation rate major threshold overshoot condition has occurred. JBSSPI-8019.22: Message Driven Bean creation rate major threshold overshoot condition is gone. JBSSPI-8019.13: Message Driven Bean creation rate warning threshold overshoot condition has occurred. JBSSPI-8019.23: Message Driven Bean creation rate warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ol style="list-style-type: none"> 1. Not sufficient Message Driven Beans in pooled state. 2. Message Driven Bean pool size is set to small value. <p>Potential Impact:</p>

1. JVM Heap space may reduce rapidly.
2. Frequent JVM garbage collection calls.

Suggested action: Verify Message Driven Bean pool size set.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0020

Metric ID	JBSSPI_0020
Metric Name	S020_MsgDrvBnRmRate
Metric Type	Alarming and Graphing
Policy Description	Number of Message Driven Beans removed per second
Severity	JBSSPI-8020.11: Critical, threshold, 15.0 JBSSPI-8020.21: Normal JBSSPI-8020.12: Major, threshold, 10.0 JBSSPI-8020.22: Normal JBSSPI-8020.13: Warning, threshold, 5.0 JBSSPI-8020.23: Normal
Message Group	JBoss
Message	JBSSPI-8020.11: Message Driven Bean removal rate critical threshold overshoot condition has occurred. JBSSPI-8020.21: Message Driven Bean removal rate critical threshold overshoot condition is gone. JBSSPI-8020.12: Message Driven Bean removal rate major threshold overshoot condition has occurred. JBSSPI-8020.22: Message Driven Bean removal rate major threshold overshoot condition is gone. JBSSPI-8020.13: Message Driven Bean removal rate warning threshold overshoot condition has occurred. JBSSPI-8020.23: Message Driven Bean removal rate warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Message Driven Beans in ready state do not represent valid rowset.</p> <p>Potential Impact: Sudden spike in Message Driven Bean creation rate may occur.</p> <p>Suggested action: Verify application business logic.</p>

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0021

Metric ID	JBSSPI_0021
Metric Name	S021_MsgDrvBnMsgRcRt
Metric Type	Alarming and Graphing
Policy Description	Number of messages received by a Message Driven Bean per second
Severity	JBSSPI-8021.11: Critical, threshold, 15.0 JBSSPI-8021.21: Normal JBSSPI-8021.12: Major, threshold, 10.0 JBSSPI-8021.22: Normal JBSSPI-8021.13: Warning, threshold, 5.0 JBSSPI-8021.23: Normal
Message Group	JBoss
Message	JBSSPI-8021.11: Message Driven Bean message arrival rate critical threshold overshoot condition has occurred. JBSSPI-8021.21: Message Driven Bean message arrival rate critical threshold overshoot condition is gone. JBSSPI-8021.12: Message Driven Bean message arrival rate major threshold overshoot condition has occurred. JBSSPI-8021.22: Message Driven Bean message arrival rate major threshold overshoot condition is gone. JBSSPI-8021.13: Message Driven Bean message arrival rate warning threshold overshoot condition has occurred. JBSSPI-8021.23: Message Driven Bean message arrival rate warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Lesser instances of Message Driven Beans in ready state.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Application response time may increase. 2. JMS queue may get saturated. 3. Messages may get timed out.

Suggested action:

1. Increase JMS queue size.
2. Application should create additional Message Driven Beans to handle load.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0022

Metric ID	JBSSPI_0022
Metric Name	S022_StfulSesBnCrtr
Metric Type	Alarming and Graphing
Policy Description	Number of Stateful Session Beans created per second
Severity	JBSSPI-8022.11: Critical, threshold, 15.0 JBSSPI-8022.21: Normal JBSSPI-8022.12: Major, threshold, 10.0 JBSSPI-8022.22: Normal JBSSPI-8022.13: Warning, threshold, 5.0 JBSSPI-8022.23: Normal
Message Group	JBoss
Message	JBSSPI-8022.11: Stateful Session Bean creation rate critical threshold overshoot condition has occurred. JBSSPI-8022.21: Stateful Session Bean creation rate critical threshold overshoot condition is gone. JBSSPI-8022.12: Stateful Session Bean creation rate major threshold overshoot condition has occurred. JBSSPI-8022.22: Stateful Session Bean creation rate major threshold overshoot condition is gone. JBSSPI-8022.13: Stateful Session Bean creation rate warning threshold overshoot condition has occurred. JBSSPI-8022.23: Stateful Session Bean creation rate warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Sudden increase in client transactions.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. JVM Heap space may reduce rapidly. 2. Frequent JVM garbage collection calls. <p>Suggested action: Verify number of client connections created.</p>

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0023

Metric ID	JBSSPI_0023
Metric Name	S023_StfulSesBnPasRt
Metric Type	Alarming and Graphing
Policy Description	Number of Stateful Session Beans passivated per second
Severity	JBSSPI-8023.11: Critical, threshold, 15.0 JBSSPI-8023.21: Normal JBSSPI-8023.12: Major, threshold, 10.0 JBSSPI-8023.22: Normal JBSSPI-8023.13: Warning, threshold, 5.0 JBSSPI-8023.23: Normal
Message Group	JBoss
Message	JBSSPI-8023.11: Stateful Session Bean passivation rate critical threshold overshoot condition has occurred. JBSSPI-8023.21: Stateful Session Bean passivation rate critical threshold overshoot condition is gone. JBSSPI-8023.12: Stateful Session Bean passivation rate major threshold overshoot condition has occurred. JBSSPI-8023.22: Stateful Session Bean passivation rate major threshold overshoot condition is gone. JBSSPI-8023.13: Stateful Session Bean passivation rate warning threshold overshoot condition has occurred. JBSSPI-8023.23: Stateful Session Bean passivation rate warning threshold overshoot condition is gone.
Instructions	Probable Cause: Ongoing client transactions have become dormant. Potential Impact: Application response time may increase. Suggested action: Verify Session beans passivation interval configured.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0024

Metric ID	JBSSPI_0024
Metric Name	S024_StlesSesBnCrRt
Metric Type	Alarming and Graphing
Policy Description	Number of Stateless Session Beans created per second
Severity	JBSSPI-8024.11: Critical, threshold, 15.0 JBSSPI-8024.21: Normal JBSSPI-8024.12: Major, threshold, 10.0 JBSSPI-8024.22: Normal JBSSPI-8024.13: Warning, threshold, 5.0 JBSSPI-8024.23: Normal
Message Group	JBoss
Message	JBSSPI-8024.11: Stateful Session Bean creation rate critical threshold overshoot condition has occurred. JBSSPI-8024.21: Stateful Session Bean creation rate critical threshold overshoot condition is gone. JBSSPI-8024.12: Stateful Session Bean creation rate major threshold overshoot condition has occurred. JBSSPI-8024.22: Stateful Session Bean creation rate major threshold overshoot condition is gone. JBSSPI-8024.13: Stateful Session Bean creation rate warning threshold overshoot condition has occurred. JBSSPI-8024.23: Stateful Session Bean creation rate warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Sudden increase in client transactions.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. JVM Heap space may reduce rapidly. 2. Frequent JVM garbage collection calls. <p>Suggested action: Verify number of client connections created.</p>

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0025

Metric ID	JBSSPI_0025
Metric Name	S025_JMSTotlPndgMsgs
Metric Type	Alarming and Graphing
Policy Description	Number of pending JMS messages in a session
Severity	JBSSPI-8025.11: Critical, threshold, 15.0 JBSSPI-8025.21: Normal JBSSPI-8025.12: Major, threshold, 10.0 JBSSPI-8025.22: Normal JBSSPI-8025.13: Warning, threshold, 5.0 JBSSPI-8025.23: Normal
Message Group	JBoss
Message	JBSSPI-8025.11: JMS session pending messages critical threshold overshoot condition has occurred. JBSSPI-8025.21: JMS session pending messages critical threshold overshoot condition is gone. JBSSPI-8025.12: JMS session pending messages major threshold overshoot condition has occurred. JBSSPI-8025.22: JMS session pending messages major threshold overshoot condition is gone. JBSSPI-8025.13: JMS session pending messages warning threshold overshoot condition has occurred. JBSSPI-8025.23: JMS session pending messages warning threshold overshoot condition is gone.
Instructions	Probable Cause: <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. Potential Impact: <ul style="list-style-type: none"> • Further messages may get rejected.

- JVM Heap space may reduce rapidly.
- Frequent JVM garbage collection calls.
- Possibility of out-of-memory error.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Increase message queue or topic size.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0026

Metric ID	JBSSPI_0026
Metric Name	S026_JMSNewPndgMsgs
Metric Type	Alarming and Graphing
Policy Description	New pending JMS messages in a session over collection interval
Severity	JBSSPI-8026.11: Critical, threshold, 15.0 JBSSPI-8026.21: Normal JBSSPI-8026.12: Major, threshold, 10.0 JBSSPI-8026.22: Normal JBSSPI-8026.13: Warning, threshold, 5.0 JBSSPI-8026.23: Normal
Message Group	JBoss
Message	JBSSPI-8026.11: JMS session new pending messages in a collection interval critical threshold overshoot condition has occurred. JBSSPI-8026.21: JMS session new pending messages in a collection interval critical threshold overshoot condition is gone. JBSSPI-8026.12: JMS session new pending messages in a collection interval major threshold overshoot condition has occurred. JBSSPI-8026.22: JMS session new pending messages in a collection interval major threshold overshoot condition is gone. JBSSPI-8026.13: JMS session new pending messages in a collection interval warning threshold overshoot condition has occurred. JBSSPI-8026.23: JMS session new pending messages in a collection interval warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p>

- Further messages may get rejected.
- JVM Heap space may reduce rapidly.
- Frequent JVM garbage collection calls.
- Possibility of out-of-memory error.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Increase message queue or topic size.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0027

Metric ID	JBSSPI_0027
Metric Name	S027_JMSTotlExprMsgs
Metric Type	Alarming and Graphing
Policy Description	Number of expired JMS messages in a session
Severity	JBSSPI-8027.11: Critical, threshold, 15.0 JBSSPI-8027.21: Normal JBSSPI-8027.12: Major, threshold, 10.0 JBSSPI-8027.22: Normal JBSSPI-8027.13: Warning, threshold, 5.0 JBSSPI-8027.23: Normal
Message Group	JBoss
Message	JBSSPI-8027.11: JMS session expired messages critical threshold overshoot condition has occurred. JBSSPI-8027.21: JMS session expired messages critical threshold overshoot condition is gone. JBSSPI-8027.12: JMS session expired messages major threshold overshoot condition has occurred. JBSSPI-8027.22: JMS session expired messages major threshold overshoot condition is gone. JBSSPI-8027.13: JMS session expired messages warning threshold overshoot condition has occurred. JBSSPI-8027.23: JMS session expired messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p> <ul style="list-style-type: none"> • Expiry of transaction message leads to high transaction roll back rate.

- Application failure due to communication failure.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Check if subscribers can be made durable.
3. Increase message timeout value.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0028

Metric ID	JBSSPI_0028
Metric Name	S028_JMSNewExprMsgs
Metric Type	Alarming and Graphing
Policy Description	New expired JMS messages in a session over collection interval
Severity	JBSSPI-8028.11: Critical, threshold, 15.0 JBSSPI-8028.21: Normal JBSSPI-8028.12: Major, threshold, 10.0 JBSSPI-8028.22: Normal JBSSPI-8028.13: Warning, threshold, 5.0 JBSSPI-8028.23: Normal
Message Group	JBoss
Message	JBSSPI-8028.11: JMS session new expired messages in a collection interval critical threshold overshoot condition has occurred. JBSSPI-8028.21: JMS session new expired messages in a collection interval critical threshold overshoot condition is gone. JBSSPI-8028.12: JMS session new expired messages in a collection interval major threshold overshoot condition has occurred. JBSSPI-8028.22: JMS session new expired messages in a collection interval major threshold overshoot condition is gone. JBSSPI-8028.13: JMS session new expired messages in a collection interval warning threshold overshoot condition has occurred. JBSSPI-8028.23: JMS session new expired messages in a collection interval warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p>

- Expiry of transaction message leads to high transaction roll back rate.
- Application failure due to communication failure.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Check if subscribers can be made durable.
3. Increase message timeout value.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0029

Metric ID	JBSSPI_0029
Metric Name	S029_JMSMsgExchCnt
Metric Type	Alarming and Graphing
Policy Description	Number of JMS messages exchanged in a session
Severity	JBSSPI-8029.11: Critical, threshold, 5.0 JBSSPI-8029.21: Normal JBSSPI-8029.12: Major, threshold, 10.0 JBSSPI-8029.22: Normal JBSSPI-8029.13: Warning, threshold, 15.0 JBSSPI-8029.23: Normal
Message Group	JBoss
Message	JBSSPI-8029.11: JMS session exchanged messages critical threshold overshoot condition has occurred. JBSSPI-8029.21: JMS session exchanged messages critical threshold overshoot condition is gone. JBSSPI-8029.12: JMS session exchanged messages major threshold overshoot condition has occurred. JBSSPI-8029.22: JMS session exchanged messages major threshold overshoot condition is gone. JBSSPI-8029.13: JMS session exchanged messages warning threshold overshoot condition has occurred. JBSSPI-8029.23: JMS session exchanged messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Message consumption rate has come down.</p> <p>Potential Impact:</p> <ul style="list-style-type: none"> • Message expiry rate may overshoot. • Further messages may get rejected. <p>Suggested action: Tune JMS consumers to remove messages fast enough and</p>

acknowledge.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0030

Metric ID	JBSSPI_0030
Metric Name	S030_JMSMsgAvgWtTime
Metric Type	Alarming and Graphing
Policy Description	Average time spent by a JMS message in a session before being delivered
Severity	JBSSPI-8030.11: Critical, threshold, 15.0 JBSSPI-8030.21: Normal JBSSPI-8030.12: Major, threshold, 10.0 JBSSPI-8030.22: Normal JBSSPI-8030.13: Warning, threshold, 5.0 JBSSPI-8030.23: Normal
Message Group	JBoss
Message	JBSSPI-8030.11: JMS session message average wait time critical threshold overshoot condition has occurred. JBSSPI-8030.21: JMS session message average wait time critical threshold overshoot condition is gone. JBSSPI-8030.12: JMS session message average wait time major threshold overshoot condition has occurred. JBSSPI-8030.22: JMS session message average wait time major threshold overshoot condition is gone. JBSSPI-8030.13: JMS session message average wait time warning threshold overshoot condition has occurred. JBSSPI-8030.23: JMS session message average wait time warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Message consumption rate has come down.</p> <p>Potential Impact:</p> <ol style="list-style-type: none"> 1. Message queue may grow. 2. Message expiry rate may overshoot. <p>Suggested action: Tune JMS consumers to remove messages fast enough and</p>

acknowledge.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0031

Metric ID	JBSSPI_0031
Metric Name	S031_JMSPTtlPndgMsgs
Metric Type	Alarming and Graphing
Policy Description	Number of pending JMS messages for a producer
Severity	JBSSPI-8031.11: Critical, threshold, 15.0 JBSSPI-8031.21: Normal JBSSPI-8031.12: Major, threshold, 10.0 JBSSPI-8031.22: Normal JBSSPI-8031.13: Warning, threshold, 5.0 JBSSPI-8031.23: Normal
Message Group	JBoss
Message	JBSSPI-8031.11: JMS producer pending messages critical threshold overshoot condition has occurred. JBSSPI-8031.21: JMS producer pending messages critical threshold overshoot condition is gone. JBSSPI-8031.12: JMS producer pending messages major threshold overshoot condition has occurred. JBSSPI-8031.22: JMS producer pending messages major threshold overshoot condition is gone. JBSSPI-8031.13: JMS producer pending messages warning threshold overshoot condition has occurred. JBSSPI-8031.23: JMS producer pending messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p> <ul style="list-style-type: none"> • Further messages may get rejected.

- JVM Heap space may reduce rapidly.
- Frequent JVM garbage collection calls.
- Possibility of out-of-memory error.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Increase message queue or topic size.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0032

Metric ID	JBSSPI_0032
Metric Name	S032_JMSPNewPndgMsgs
Metric Type	Alarming and Graphing
Policy Description	New pending JMS messages for a producer over collection interval
Severity	JBSSPI-8032.11: Critical, threshold, 15.0 JBSSPI-8032.21: Normal JBSSPI-8032.12: Major, threshold, 10.0 JBSSPI-8032.22: Normal JBSSPI-8032.13: Warning, threshold, 5.0 JBSSPI-8032.23: Normal
Message Group	JBoss
Message	JBSSPI-8032.11: JMS producer new pending messages in a collection interval critical threshold overshoot condition has occurred. JBSSPI-8032.21: JMS producer new pending messages in a collection interval critical threshold overshoot condition is gone. JBSSPI-8032.12: JMS producer new pending messages in a collection interval major threshold overshoot condition has occurred. JBSSPI-8032.22: JMS producer new pending messages in a collection interval major threshold overshoot condition is gone. JBSSPI-8032.13: JMS producer new pending messages in a collection interval warning threshold overshoot condition has occurred. JBSSPI-8032.23: JMS producer new pending messages in a collection interval warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p>

- Further messages may get rejected.
- JVM Heap space may reduce rapidly.
- Frequent JVM garbage collection calls.
- Possibility of out-of-memory error.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Increase message queue or topic size.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0033

Metric ID	JBSSPI_0033
Metric Name	S033_JMSPTtlExprMsgs
Metric Type	Alarming and Graphing
Policy Description	Number of expired JMS messages for a producer
Severity	JBSSPI-8033.11: Critical, threshold, 15.0 JBSSPI-8033.21: Normal JBSSPI-8033.12: Major, threshold, 10.0 JBSSPI-8033.22: Normal JBSSPI-8033.13: Warning, threshold, 5.0 JBSSPI-8033.23: Normal
Message Group	JBoss
Message	JBSSPI-8033.11: JMS producer expired messages critical threshold overshoot condition has occurred. JBSSPI-8033.21: JMS producer expired messages critical threshold overshoot condition is gone. JBSSPI-8033.12: JMS producer expired messages major threshold overshoot condition has occurred. JBSSPI-8033.22: JMS producer expired messages major threshold overshoot condition is gone. JBSSPI-8033.13: JMS producer expired messages warning threshold overshoot condition has occurred. JBSSPI-8033.23: JMS producer expired messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p> <ul style="list-style-type: none"> • Expiry of transaction message leads to high transaction roll back rate.

- Application failure due to communication failure.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Check if subscribers can be made durable.
3. Increase message timeout value.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0034

Metric ID	JBSSPI_0034
Metric Name	S034_JMSPNewExprMsgs
Metric Type	Alarming and Graphing
Policy Description	New expired JMS messages for a producer over collection interval
Severity	JBSSPI-8034.11: Critical, threshold, 15.0 JBSSPI-8034.21: Normal JBSSPI-8034.12: Major, threshold, 10.0 JBSSPI-8034.22: Normal JBSSPI-8034.13: Warning, threshold, 5.0 JBSSPI-8034.23: Normal
Message Group	JBoss
Message	JBSSPI-8034.11: JMS producer new expired messages in a collection interval critical threshold overshoot condition has occurred. JBSSPI-8034.21: JMS producer new expired messages in a collection interval critical threshold overshoot condition is gone. JBSSPI-8034.12: JMS producer new expired messages in a collection interval major threshold overshoot condition has occurred. JBSSPI-8034.22: JMS producer new expired messages in a collection interval major threshold overshoot condition is gone. JBSSPI-8034.13: JMS producer new expired messages in a collection interval warning threshold overshoot condition has occurred. JBSSPI-8034.23: JMS producer new expired messages in a collection interval warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p>

- Expiry of transaction message leads to high transaction roll back rate.
- Application failure due to communication failure.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Check if subscribers can be made durable.
3. Increase message timeout value.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0035

Metric ID	JBSSPI_0035
Metric Name	S035_JMSPMsgSentCnt
Metric Type	Alarming and Graphing
Policy Description	Number of JMS messages sent by a producer
Severity	JBSSPI-8035.11: Critical, threshold, 5.0 JBSSPI-8035.21: Normal JBSSPI-8035.12: Major, threshold, 10.0 JBSSPI-8035.22: Normal JBSSPI-8035.13: Warning, threshold, 15.0 JBSSPI-8035.23: Normal
Message Group	JBoss
Message	JBSSPI-8035.11: JMS producer sent messages critical threshold overshoot condition has occurred. JBSSPI-8035.21: JMS producer sent messages critical threshold overshoot condition is gone. JBSSPI-8035.12: JMS producer sent messages major threshold overshoot condition has occurred. JBSSPI-8035.22: JMS producer sent messages major threshold overshoot condition is gone. JBSSPI-8035.13: JMS producer sent messages warning threshold overshoot condition has occurred. JBSSPI-8035.23: JMS producer sent messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Message consumption rate has come down. • Message are getting rejected. <p>Potential Impact:</p> <ul style="list-style-type: none"> • Message queue may grow.

- Message expiry rate may overshoot.

Suggested action: Tune JMS consumers to remove messages fast enough and acknowledge.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0036

Metric ID	JBSSPI_0036
Metric Name	S036_JMSPMsgAvgWtTime
Metric Type	Alarming and Graphing
Policy Description	Average time spent by a JMS message before being delivered to the producer
Severity	JBSSPI-8036.11: Critical, threshold, 15.0 JBSSPI-8036.21: Normal JBSSPI-8036.12: Major, threshold, 10.0 JBSSPI-8036.22: Normal JBSSPI-8036.13: Warning, threshold, 5.0 JBSSPI-8036.23: Normal
Message Group	JBoss
Message	JBSSPI-8036.11: JMS producer message average wait time critical threshold overshoot condition has occurred. JBSSPI-8036.21: JMS producer message average wait time critical threshold overshoot condition is gone. JBSSPI-8036.12: JMS producer message average wait time major threshold overshoot condition has occurred. JBSSPI-8036.22: JMS producer message average wait time major threshold overshoot condition is gone. JBSSPI-8036.13: JMS producer message average wait time warning threshold overshoot condition has occurred. JBSSPI-8036.23: JMS producer message average wait time warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause: Message consumption rate has come down.</p> <p>Potential Impact:</p> <ul style="list-style-type: none"> • Message queue may grow. • Message expiry rate may overshoot. <p>Suggested action: Tune JMS consumers to remove messages fast enough and</p>

acknowledge.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0037

Metric ID	JBSSPI_0037
Metric Name	S037_JMSCTtlPndgMsgs
Metric Type	Alarming and Graphing
Policy Description	Number of pending JMS messages for a consumer
Severity	JBSSPI-8037.11: Critical, threshold, 15.0 JBSSPI-8037.21: Normal JBSSPI-8037.12: Major, threshold, 10.0 JBSSPI-8037.22: Normal JBSSPI-8037.13: Warning, threshold, 5.0 JBSSPI-8037.23: Normal
Message Group	JBoss
Message	JBSSPI-8037.11: JMS consumer pending messages critical threshold overshoot condition has occurred. JBSSPI-8037.21: JMS consumer pending messages critical threshold overshoot condition is gone. JBSSPI-8037.12: JMS consumer pending messages major threshold overshoot condition has occurred. JBSSPI-8037.22: JMS consumer pending messages major threshold overshoot condition is gone. JBSSPI-8037.13: JMS consumer pending messages warning threshold overshoot condition has occurred. JBSSPI-8037.23: JMS consumer pending messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p> <ul style="list-style-type: none"> • Further messages may get rejected.

- JVM Heap space may reduce rapidly.
- Frequent JVM garbage collection calls.
- Possibility of out-of-memory error.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Increase message queue or topic size.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0038

Metric ID	JBSSPI_0038
Metric Name	S038_JMSCNewPndgMsgs
Metric Type	Alarming and Graphing
Policy Description	New pending JMS messages for a consumer over collection interval
Severity	JBSSPI-8038.11: Critical, threshold, 15.0 JBSSPI-8038.21: Normal JBSSPI-8038.12: Major, threshold, 10.0 JBSSPI-8038.22: Normal JBSSPI-8038.13: Warning, threshold, 5.0 JBSSPI-8038.23: Normal
Message Group	JBoss
Message	JBSSPI-8038.11: JMS consumer new pending messages in a collection interval critical threshold overshoot condition has occurred. JBSSPI-8038.21: JMS consumer new pending messages in a collection interval critical threshold overshoot condition is gone. JBSSPI-8038.12: JMS consumer new pending messages in a collection interval major threshold overshoot condition has occurred. JBSSPI-8038.22: JMS consumer new pending messages in a collection interval major threshold overshoot condition is gone. JBSSPI-8038.13: JMS consumer new pending messages in a collection interval warning threshold overshoot condition has occurred. JBSSPI-8038.23: JMS consumer new pending messages in a collection interval warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p>

- Further messages may get rejected.
- JVM Heap space may reduce rapidly.
- Frequent JVM garbage collection calls.
- Possibility of out-of-memory error.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Increase message queue or topic size.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0039

Metric ID	JBSSPI_0039
Metric Name	S039_JMSCTtlExprMsgs
Metric Type	Alarming and Graphing
Policy Description	Number of expired JMS messages for a consumer
Severity	JBSSPI-8039.11: Critical, threshold, 15.0 JBSSPI-8039.21: Normal JBSSPI-8039.12: Major, threshold, 10.0 JBSSPI-8039.22: Normal JBSSPI-8039.13: Warning, threshold, 5.0 JBSSPI-8039.23: Normal
Message Group	JBoss
Message	JBSSPI-8039.11: JMS consumer expired messages critical threshold overshoot condition has occurred. JBSSPI-8039.21: JMS consumer expired messages critical threshold overshoot condition is gone. JBSSPI-8039.12: JMS consumer expired messages major threshold overshoot condition has occurred. JBSSPI-8039.22: JMS consumer expired messages major threshold overshoot condition is gone. JBSSPI-8039.13: JMS consumer expired messages warning threshold overshoot condition has occurred. JBSSPI-8039.23: JMS consumer expired messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p> <ul style="list-style-type: none"> • Expiry of transaction message leads to high transaction roll back rate.

- Application failure due to communication failure.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Check if subscribers can be made durable.
3. Increase message timeout value.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0040

Metric ID	JBSSPI_0040
Metric Name	S040_JMSCNewExprMsgs
Metric Type	Alarming and Graphing
Policy Description	New expired JMS messages for a consumer over collection interval
Severity	JBSSPI-8040.11: Critical, threshold, 15.0 JBSSPI-8040.21: Normal JBSSPI-8040.12: Major, threshold, 10.0 JBSSPI-8040.22: Normal JBSSPI-8040.13: Warning, threshold, 5.0 JBSSPI-8040.23: Normal
Message Group	JBoss
Message	JBSSPI-8040.11: JMS consumer new expired messages in a collection interval critical threshold overshoot condition has occurred. JBSSPI-8040.21: JMS consumer new expired messages in a collection interval critical threshold overshoot condition is gone. JBSSPI-8040.12: JMS consumer new expired messages in a collection interval major threshold overshoot condition has occurred. JBSSPI-8040.22: JMS consumer new expired messages in a collection interval major threshold overshoot condition is gone. JBSSPI-8040.13: JMS consumer new expired messages in a collection interval warning threshold overshoot condition has occurred. JBSSPI-8040.23: JMS consumer new expired messages in a collection interval warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • Messages are not being consumed at regular intervals. • Rate of message creation is more than that of consumption. <p>Potential Impact:</p>

- Expiry of transaction message leads to high transaction roll back rate.
- Application failure due to communication failure.

Suggested action:

1. Tune JMS consumers to remove messages fast enough.
2. Check if subscribers can be made durable.
3. Increase message timeout value.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI_0041

Metric ID	JBSSPI_0041
Metric Name	S041_JMSCMsgRecvdCnt
Metric Type	Alarming and Graphing
Policy Description	Number of JMS messages received by a consumer
Severity	JBSSPI-8041.11: Critical, threshold, 5.0 JBSSPI-8041.21: Normal JBSSPI-8041.12: Major, threshold, 10.0 JBSSPI-8041.22: Normal JBSSPI-8041.13: Warning, threshold, 15.0 JBSSPI-8041.23: Normal
Message Group	JBoss
Message	JBSSPI-8041.11: JMS consumer received messages critical threshold overshoot condition has occurred. JBSSPI-8041.21: JMS consumer received messages critical threshold overshoot condition is gone. JBSSPI-8041.12: JMS consumer received messages major threshold overshoot condition has occurred. JBSSPI-8041.22: JMS consumer received messages major threshold overshoot condition is gone. JBSSPI-8041.13: JMS consumer received messages warning threshold overshoot condition has occurred. JBSSPI-8041.23: JMS consumer received messages warning threshold overshoot condition is gone.
Instructions	<p>Probable Cause:</p> <ul style="list-style-type: none"> • The consumer is failing to remove messages fast. • Message timeout value set by producer is less. <p>Potential Impact: Topic or Queue size may grow.</p> <p>Suggested action:</p>

- | | |
|--|--|
| | <ol style="list-style-type: none">1. If applicable make this a durable subscriber.2. Tune producer to increase message timeout value. |
|--|--|

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI_0042

Metric ID	JBSSPI_0042
Metric Name	S042_JMSCMsgAvgWtTime
Metric Type	Alarming and Graphing
Policy Description	Average time spent by a JMS message before being received by the consumer
Severity	JBSSPI-8042.11: Critical, threshold, 15.0 JBSSPI-8042.21: Normal JBSSPI-8042.12: Major, threshold, 10.0 JBSSPI-8042.22: Normal JBSSPI-8042.13: Warning, threshold, 5.0 JBSSPI-8042.23: Normal
Message Group	JBoss
Message	JBSSPI-8042.11: JMS consumer message average wait time critical threshold overshoot condition has occurred. JBSSPI-8042.21: JMS consumer message average wait time critical threshold overshoot condition is gone. JBSSPI-8042.12: JMS consumer message average wait time major threshold overshoot condition has occurred. JBSSPI-8042.22: JMS consumer message average wait time major threshold overshoot condition is gone. JBSSPI-8042.13: JMS consumer message average wait time warning threshold overshoot condition has occurred. JBSSPI-8042.23: JMS consumer message average wait time warning threshold overshoot condition is gone.
Instructions	Probable Cause: This consumer is failing to remove messages fast enough. Potential Impact: Topic or Queue size may grow. Suggested action: Tune consumer to remove messages fast.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

Data Store Table for JBoss Application Server

The JBoss AS SPI creates the following data tables for JBoss AS SPI metrics in the data store on the node to facilitate the data-collection procedure.

Table Name	Area	Metric Description	Column Name
	Transactions	Number of transactions rolled back per second	S002_TransRollbackRt
	ThreadPool	Percentage utilization of current JBoss System Thread Pool	S003_SysThdPolPctUtl
	JCA	Percentage utilization of current JCA WorkManager Thread Pool	S004_JCAThdPolPctUtl
	JVM	Percentage utilization of JVM Heap	S005_JVMHeapMmPctUtl
	Servlets	Average response time of a servlet (in secs)	S006_AllSrvAvgExTime
	JCA	Percentage utilization of JCA connection pool	S007_JCAConPolPctUtl
		Number of threads waiting for a connection from JCA pool	S008_JCAConPoolWtCnt
		Number of new connections created in JCA pool per second	S009_JCAConCrtRate
		Number of connections closed in JCA pool per second	S010_JCAConClsRate
		Number of leaked connections in JCA pool	S011_JCAConnLeak
		Average time spent waiting for a connection in JCA pool	S012_JCAConAvgWtTime
		Number of Entity Beans created	

JBSSPI_METRICS	EntityBean	Number of Entity Beans created per second	S015_EntityBnCrtRate
		Number of Entity Beans removed per second	S016_EntityBnRmRatee
		Number of Entity Beans available in pool	S017_EntityBnPolCnt
		Number of Entity Beans in ready state	S018_EntityBnReadySt
	JVM	Number of Message Driven Beans created per second	S019_MsgDrvBnCrtRate
		Number of Message Driven Beans removed per second	S020_MsgDrvBnRmRate
	JMS	Number of messages received by a Message Driven Bean per second	S021_MsgDrvBnMsgRcRt
	JVM	Number of Stateful Session Beans created per second	S022_StfulSesBnCrtRt
		Number of Stateful Session Beans passivated per second	S023_StfulSesBnPasRt
		Number of Stateless Session Beans created per second	S024_StlesSesBnCrtRt
		Number of pending JMS messages in a session	S025_JMSTotlPndgMsgs
		New pending JMS messages in a session over collection interval	S026_JMSNewPndgMsgs
		Number of expired JMS messages in a session	S027_JMSTotlExprMsgs
		New expired JMS messages in a session over collection interval	S028_JMSNewExprMsgs

JMS

Number of JMS messages exchanged in a session	S029_JMSMsgExchCnt
Average time spent by a JMS message in a session before being delivered	S030_JMSMsgAvgWtTime
Number of pending JMS messages for a producer	S031_JMSPTtlPndgMsgs
New pending JMS messages for a producer over collection interval	S032_JMSPNewPndgMsgs
Number of expired JMS messages for a producer	S033_JMSPTtlExprMsgs
New expired JMS messages for a producer over collection interval	S034_JMSPNewExprMsgs
Number of JMS messages sent by a producer	S035_JMSPMsgSentCnt
Average time spent by a JMS message before being delivered to the producer	S036_JMSPMsgAvgWtTm
Number of pending JMS messages for a consumer	S037_JMSCTtlPndgMsgs
New pending JMS messages for a consumer over collection interval	S038_JMSCNewPndgMsgs
Number of expired JMS messages for a consumer	S039_JMSCTtlExprMsgs
New expired JMS messages for a consumer over collection interval	S040_JMSCNewExprMsgs

		Number of JMS messages received by a consumer	S041_JMSCMsgRecvdCnt
		Average time spent by a JMS message before being received by the consumer	S042_JMSCMsgAvgWtTm

Related Topics:

- Metrics
- JBoss AS SPI Golden Metrics
- JBSSPI Logfiles
- JBSSPI Policies

Logfiles

Smart Plug-in for JBoss Application Server (JBoss AS SPI) logfile policy monitors information logged in JBoss Application Server log file.

Logfiles Policy Name	Description
JBoss Server Log Monitor	Monitors the JBoss server log file and catches FATAL, ERROR and WARN level messages, which it sends to the message browser
JBSSPI Error Log	Monitors the JBoss AS SPI error log and sends the error messages to the message browser.
JBSSPI Java Discovery Error Log	Monitors the JBoss AS SPI Java Discovery Error Log
JBSSPI Java Collector Error Log	Monitors the JBoss AS SPI Java Collector Error Log

Related Topics:

- JBoss AS SPI Golden Metrics
- JBSSPI Metrics
- JBSSPI Policies

JBoss Server Log Monitor

This logfile policy monitors the JBoss server log file located at
JBASS_HOME/server/production/log/server.log.

Description	Monitors the JBoss server log file and catches FATAL, ERROR and WARN level messages, which it sends to the message browser
Polling Interval	10s
Severity	Critical Warning
Category	JBoss
Type	Logfile Entry
Message Group	JBSSPI
Help Text	<p>Probable Cause : There is one of FATAL, ERROR or WARN level message in the server.log file.</p> <p>Potential Impact: The application server might exhibit unexpected behavior if necessary action(s) are not taken.</p> <p>Suggested Action : Read the message text for possible action(s) to be taken.</p>

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI Error Log

This logfile policy monitors the JBoss AS SPI log file located at `wasspi_perl -S wasspi_jbs_files wasspi_perl.log`.

Description	Monitors the JBoss AS SPI error log and sends the error messages to the message browser.
Polling Interval	30s
Severity	Normal Major Critical Warning
Category	JBoss
Type	Logfile Entry
Message Group	JBSSPI
Help Text	Available for each error as detected: WASSPI-1 through WASSPI-254. For detailed help text for all error messages, see the specific error message listed in Error Messages for information about the error message.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

JBSSPI Java Discovery Error Log

This logfile policy monitors the JBoss AS SPI discovery error log file located at `wasspi_perl -S wasspi_jbs_files Discovery.log`.

Description	Monitors the JBoss AS SPI Java Discovery Error Log.
Polling Interval	30s
Severity	Normal Major Critical Warning
Category	JBoss
Type	Logfile Entry
Message Group	JBSSPI
Help Text	Available for each error as detected: WASSPI-1 through WASSPI-254. For detailed help text for all error messages, see the specific error message listed in Error Messages for information about the error message.

Related Topics:

- [JBSSPI Logfiles](#)
- [JBSSPI Metrics](#)

JBSSPI Java Collector Error Log

This logfile policy monitors the JBoss AS SPI collector error log file located at `wasspi_perl -S wasspi_jbs_files Collector.log`.

Description	Monitors the JBoss AS SPI Java Collector Error Log.
Polling Interval	30s
Severity	Normal Major Critical Warning
Category	JBoss
Type	Logfile Entry
Message Group	JBSSPI
Help Text	Available for each error as detected: WASSPI-1 through WASSPI-254. For detailed help text for all error messages, see the specific error message listed in Error Messages for information about the error message.

Related Topics:

- JBSSPI Logfiles
- JBSSPI Metrics

Configuration editor

The HP Operations Smart Plug-in for JBoss Application Server (JBoss AS SPI) maintains a configuration that consists of property value assignments. The configuration editor is a graphical user interface used to set, view and edit the configuration.

The configuration editor is used by the Discover or Configure JBSSPI tool.

Related Topics:

- The configuration editor - getting started
- Components of Configuration Editor
- Configuration properties

Configuration Editor - Getting Started

The HP Operations Smart Plug-in for JBoss Application Server (JBoss AS SPI) maintains a configuration that consists of property value assignments.

On the HPOM for Windows management server, the configuration maintains information for your entire environment and contains information for all JBoss Application Servers on all managed nodes.

On a managed node, the configuration contains information only for the JBoss Application Servers running on that node. This information is extracted from the configuration on the management server.

Structure

The basic structure of the configuration is (lines preceded by # are treated as comments and are ignored):

```
# Global Properties

  <config_property >=<value > ...

# GROUP Block

GROUP <group_name >
{
  <nodename > ...
}

# NODE Block

NODE [<group_name > | <nodename >]
{
  <config_property >=<value > ...
}
```

Global Properties

```
# Global Properties

<config_property >=<value > ...
```

Properties defined at the global level apply to all nodes. However, these global properties can be overridden by properties set within a GROUP or NODE block or by server-specific properties.

GROUP Block

```
# GROUP Block

GROUP <group_name >
{
    <nodename > ...
}
```

GROUP blocks are used to group nodes together that have common properties.

<group_name > identifies the group of nodes with common properties. If a GROUP block <group_name > is repeated within the configuration file, the last definition takes precedence.

<nodename > lists the nodes in the group and each node name is the primary node name configured in HPOM.

Set the common properties using the NODE block.

Using the configuration editor, view, set, or edit GROUP block properties by selecting the Default Properties item in the <Group_Name> folder.

NODE Block

```
# NODE Block

NODE [<group_name > | <nodename >]
{
    <config_property >=<value > ...
}
```

Properties set in a NODE block apply to nodes belonging to the group defined by <group_name > (to set common properties for a group) or to the specified <nodename > (to set properties for a single node).

For a group, enter the *<group_name>* defined by the GROUP block and set the common properties.

For a single node, enter the *<nodename>* and set the properties.

<nodename> is the primary node name configured in HPOM.

If a property definition is repeated within the NODE block, the last definition takes precedence.

Using the configuration editor, view, set, or edit NODE block properties by selecting the Default Properties item in the *<Node_Name>* folder.

Server-specific properties

Each property specified as *SERVER<n>_config_property* refers to a specific JBoss AS instance.

When more than one JBoss AS is running on a given managed node, the number *<n>* differentiates the servers. Numbering begins at "1" and each JBoss AS instance is assigned a unique number.

Using the configuration editor, view, set, or edit server-specific properties by selecting the *<Application_Server_Name>* item in the Application Servers folder.

Configuration property precedence

The order of precedence of properties set in the configuration file are (listed from highest to lowest):

1. *SERVER<n>_config_property* (server-specific)
2. *NODE nodename* block *config_property*
3. *NODE group_name* block *config_property*
4. Global *config_property*

Related Topics:

- Configuration editor
- Components of Configuration Editor
- Configuration properties

Components of configuration editor


The configuration editor is provided by the HP Operations Smart Plug-in for JBoss Application Server (JBoss AS SPI) to view and edit the configuration. You must update the configuration using this editor only.

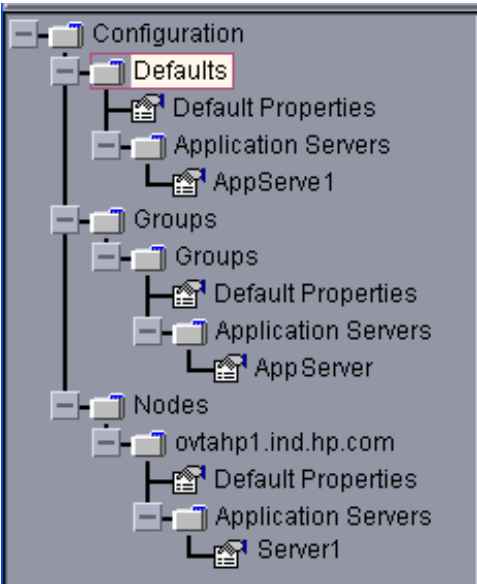
The configuration editor has three components:


Configuration editor tree

The Configuration Editor - Tree appears in the left pane of the Configuration Editor window. It shows the JBoss AS SPI configuration in a tree structure.

The following is an example of the tree.

 **NOTE:**
If no application servers or groups are configured, the “Application Servers” and “Groups” folders are not displayed. If you are running Discover or Configure JBSSPI for the first time and you have not selected any node before you launched the tool, the “Nodes” folder is not displayed.



The  icon denotes that you can view configuration properties.

The  icon denotes that you can view and set configuration properties.















The following table lists each item in the tree and a brief description of the item.

Item Name	Description
Application Servers	A folder that contains a list of all the application servers. This folder can appear under Defaults (global properties level), Group_Name(s) (GROUP level), or Node_Name(s) (NODE level).
<Application_Server_Name >	The server name as defined in the JBoss Application Server.
Configuration	A folder that contains all JBoss AS SPI configuration information for the JBoss AS environment.
Default Properties	Lists the configuration properties that have been set. This item appears under Defaults (global properties level), Group_Name(s) (GROUP level), or Node_Name(s) (NODE level).
Defaults	A folder that represents the global properties level .
Groups	A folder that represents the GROUP level .
<Group_Name >	A folder that identifies the name of a group of nodes with common properties.
Nodes	A folder that represents the NODE level .
<Node_Name >	A folder that represents a single node whose name must match the primary node name configured in HPOM.

Actions to perform

Actions that you can perform depend on the item that is selected in the tree and from where you access the action. The following actions can be accessed from the Actions menu, File menu, or by right-clicking an item in the tree.

In the table below, click the action for a more detailed description (if available) of how to perform that action.

Action	Description	Selected Tree Item
Add Application Server	Add an application server. This action is performed only during discovery and not during configuration.	 Application Servers  Defaults  <Group_Name >  <Node_Name >
Exit	Exit the Discover or Configure JBSSPI tool. This action is available from the File menu. If any changes were made that have not been saved, the "Confirm Cancel" window displays.	 Any item in the tree  Any item in the tree
Remove Application Server/Remove ALL Servers	Remove an application server or all listed application servers.	 Application Servers  <Application_Server_Name >
Save	Save changes to the configuration file. This action is available from the File menu only if changes were made to the configuration file.	 Any item in the tree  Any item in the tree
Set Configuration Properties tab	Set JBoss AS SPI configuration properties.	 <Application_Server_Name >  Default Properties
View Configuration Settings tab	View JBoss AS SPI configuration properties.	 Any item in the tree  Any item in the tree

Configuration editor buttons

The following buttons are available in Discover or Configure JBSSPI:

Button	Description
Cancel	<p>Exit Discover or Configure JBSSPI.</p> <p>If you have set configuration properties without saving them, these changes are not saved.</p> <p>If you added or removed an application server, node, or group without saving the change or if you have modified a configuration property, a "Confirm Cancel" window displays. Select Save and Exit to save the changes before exiting, Exit without Save to exit without saving the changes, or Return to Editing to continue editing the configuration file (changes are not saved).</p>
Finish	Exit Discover or Configure JBSSPI and start configuring.
Save	Save changes to the HPOM management server's configuration file and continue editing the configuration file. You may also select File → Save to save your changes.

Related Topics:

- Configuration Editor
- The configuration editor - getting started
- Configuration properties

Configuration properties

The Smart Plug-in for JBoss Application Server (JBoss AS SPI) maintains a configuration that consists of property value assignments.

If you are not using the discovery process, set all the required properties.

The table lists, in this order, required configuration properties, conditional configuration properties, and optional configuration properties. To display a description of the property, click the property name in the table below, or use the pull-down menu at the bottom of the page.

Property	Configuration	Automatically Discovered	Discovery	Level of Configuration	
				Default Properties	Application Server
ADDRESS	Conditional		Conditional		✓
JAVA_HOME	Required		Required	✓	✓
JBOSS_HOME_LIST	Required		Required	✓	✓
LOGIN	Required		Required	✓	✓
PASSWORD	Required		Required	✓	✓

Related Topics:

- Configuration Editor
- Components of configuration editor

ADDRESS

Description	The domain name or IP address where the server is listening. If not specified, the server is listening on the primary IP of the node on which the server is running.
Configuration Requirement	Conditional
Automatically Discovered?	No
Discovery Requirement	Conditional. Required if the server is running on a virtual IP address or is on a remote node.
Level of Configuration	Application Server
Default Value	Primary IP address of the node
Examples	<code>SERVER1_ADDRESS = server.hp.com</code>

JAVA_HOME

Description	The directory where JDK or JRE is installed. The java engine is expected to be \$JAVA_HOME/bin/java .
Configuration Requirement	Required .
Automatically Discovered?	No
Discovery Requirement	Required.
Level of Configuration	Default Properties and Application Server
Default Value	N/A
Examples	

JBASS_HOME_LIST

Description	The directory which contains all the JBASS_HOME locations separated by ;.
Configuration Requirement	Required .
Automatically Discovered?	No
Discovery Requirement	Required.
Level of Configuration	Default Properties
Default Value	N/A
Examples	

LOGIN

Description	<p>A JBoss Application Server-defined user (not a system user) that is used by JBoss AS SPI to monitor the JBoss Application Server. If not specified, the configuration data collected may not be accurate.</p> <p>LOGIN or SERVER<n> _LOGIN may be set. If both are set, the server-specific (SERVER<n>) definition takes precedence.</p>
Configuration Requirement	Required .
Automatically Discovered?	No
Discovery Requirement	Required.
Level of Configuration	Default Properties and Application Server
Default Value	N/A
Examples	<pre>LOGIN=system LOGIN=jbossadmin</pre>

PASSWORD

Description	<p>The password for LOGIN.</p> <p>When the configuration file is saved, the password is encrypted.</p> <p>PASSWORD or SERVER<<i>n</i>> _PASSWORD may be set. If both are set, the server-specific (SERVER<<i>n</i>>) definition takes precedence.</p>
Configuration Requirement	Required .
Automatically Discovered?	No
Discovery Requirement	Required.
Level of Configuration	Default Properties and Application Server
Default Value	N/A
Examples	<pre>PASSWORD=system_password PASSWORD=jbossadmin_password</pre>

Error messages

The listed error messages result from conditions detected in the operation of the Smart Plug-in for JBoss Application Server (JBoss AS SPI). Click the error message number to display detailed information about that error message.

1 - 21	21 - 43	201 - 223	224 - 254
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WASSPI-2	WASSPI-23	WASSPI-202	WASSPI-225
WASSPI-3	WASSPI-24	WASSPI-203	WASSPI-226
WASSPI-4	WASSPI-26	WASSPI-204	WASSPI-227
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WASSPI-7	WASSPI-29	WASSPI-207	WASSPI-230
WASSPI-8	WASSPI-30	WASSPI-208	WASSPI-231
WASSPI-9	WASSPI-31	WASSPI-209	WASSPI-232
WASSPI-10	WASSPI-32	WASSPI-210	WASSPI-234
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WASSPI-12	WASSPI-34	WASSPI-213	WASSPI-236
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WASSPI-17	WASSPI-39	WASSPI-219	WASSPI-248
WASSPI-18	WASSPI-40	WASSPI-221	WASSPI-249
WASSPI-19	WASSPI-41	WASSPI-222	WASSPI-254
WASSPI-20	WASSPI-42	WASSPI-223	Others
	WASSPI-43		

WASSPI-1

Description	Unable to create the lock file <i><filename></i> . File already exists.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>Temporary lock files are used to avoid collisions when multiple JBoss AS SPI data collector processes attempt to access the same data file. This error occurs when the lock file cannot be created after several attempts because it already exists.</p> <p>Suggested Action</p> <p>If a file by the same name already exists, it might not have been deleted by a previous run of the JBoss AS SPI data collector. You should delete this file manually.</p>

WASSPI-2

Description	Cannot access the SPI configuration.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>A JBoss AS SPI configuration file could not be located or accessed. Either the file does not exist or there was a problem reading the file.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Verify that the JBoss AS SPI has been configured correctly by running the SPI Admin → Verify tool. If the configuration is not correct, run the Discover or Configure tool to reinstall the files.2. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem, for example, an I/O exception. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.

WASSPI-3

Description	Error parsing command line.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The JBoss AS SPI data collector command line is incorrectly specified in a schedule policy.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the data collector command line syntax error. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Correct the policy that contains the incorrect command line and redeploy. Refer the <i>HP Operations Smart Plug-in for JBoss Application Server Installation and Configuration Guide</i> for more information on the JBoss AS SPI data collector command line.

WASSPI-4

Description	Error getting the metric definitions.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The JBoss AS SPI data collector could not read the metric definitions XML document. This error can be caused by a missing configuration property, an I/O error, an XML parsing error, a missing file, or a corrupted serialized data file.</p> <p>Suggested Action</p> <ol style="list-style-type: none"> 1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp. 2. If the UDM_DEFINITIONS_FILE property is missing from the JBoss AS SPI configuration, run the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected. 3. If the problem is with the metric definitions file (MetricDefinitions.xml) that is shipped with the JBoss AS SPI, run the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected. 4. If the problem is with a user-defined metric definitions file that is not shipped with the JBoss AS SPI, verify that this XML file adheres to the MetricDefinitions.dtd specification. Refer to the <i>HP Operations Smart Plug-in for JBoss Application Server Installation and Configuration Guide</i> for more information on writing user-defined metrics. Reinstall your user-defined metric definition file. Run the SPI Admin → Discover or Configure JBSSPI tool and verify that the UDM_DEFINITIONS_FILE property in the SPI configuration is specified correctly. 5. If the underlying error is <code>ClassNotFoundException</code>, this is an internal error. Report this to HP Support.

WASSPI-5

Description	Error processing metric <i><metric_number></i> .
Severity	Major
Help Text	<p>Probable Cause</p> <p>An error occurred while trying to collect data or perform calculations for the specified metric.</p> <p>Suggested Action</p> <p>Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. The error messages previous to this one may also provide more information about the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.</p>

WASSPI-6

Description	Required property <i><property_name></i> is missing from the JBoss AS SPI configuration.
Severity	Major
Help Text	<p>Probable Cause</p> <p>The specified required property is missing from the JBoss AS SPI configuration file.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that the correct server information have been set for the JBoss servers on this managed node.2. Verify the property is specified correctly in the JBoss AS SPI configuration file (/var/ opt/OV/wasspi/jbs/conf/SiteConfig on Unix platforms or %OvAgentDir%\wasspi\jbs\conf\SiteConfig on Windows platforms) on the managed node in question.

WASSPI-7

Description	Unable to contact server <server_name> at url=<URL> , port=<port> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The specified server is not running at the specified port.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that you have specified the correct server name and port information for the JBoss servers on this managed node.2. Verify that the properties, SERVERx_NAME and SERVERx_PORT, are specified correctly in the JBoss AS SPI configuration file /var/opt/OV/wasspi/jbs/conf/ SiteConfig on Unix platforms or %OvAgentDir%\wasspi\jbs\conf\SiteConfig on Windows platforms) on the managed node in question.3. Verify that the JBoss Server is running on the managed node.

WASSPI-8

Description	Error saving graphing or reporting data to file <i><file_name></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The specified graphing or reporting data file could not be found or an I/O error occurred when trying to access the file.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Identify the steps to reproduce the problem.3. Run the SPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem.4. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-9

Description	Unable to retrieve property <i><property_name></i> .
Severity	Critical
Help Text	<p>Probable Cause A required property is missing from one of the JBoss AS SPI configuration files.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the missing property. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that you have specified the correct information for the JBoss servers on the managed node in question.3. Verify that the missing property is now specified in the JBoss AS SPI configuration file (/var/opt/OV/wasspi/jbs/conf/SiteConfig on Unix platforms or %OvAgentDir%\wasspi\jbs\conf\SiteConfig on Windows platforms) on the managed node in question.

WASSPI-10

Description	Encountered problem accessing file <i><file_name></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The specified file could not be found, created, or accessed. This file could be a temporary file.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the file in question and the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Verify that you have enough disk space to create temporary files.

WASSPI-11

Description	No servers have been specified in the JBoss AS SPI configuration file.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The number of JBoss servers specified in the JBoss AS SPI configuration for the managed node in question is 0.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that you have specified the correct server name and port information for the JBoss servers on this managed node.2. Verify that the property, NUM_SERVERS, in the JBoss AS SPI configuration file (/var/opt/OV/wasspi/jbs/conf/SiteConfig on Unix platforms or %OvAgentDir%\wasspi\jbs\conf\SiteConfig on Windows platforms) is set to the number of JBoss servers on this managed node.

WASSPI-12

Description	Command <i><command></i> returned error exit code <i><exit code></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>A command started by the JBoss AS SPI collector has returned an error (non-zero) exit code.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Identify the steps to reproduce the problem.2. Run the SPI Admin → Start Tracing tool to turn on tracing.3. Reproduce the problem4. Run the SPI Admin → Stop Tracing tool to turn off tracing.5. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-13

Description	Exception occurred while running an <code>opcmon</code> process.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The JBoss AS SPI data collector attempted to run a process to execute an <code>opcmon</code> call. Either the process could not be created or was interrupted.</p> <p>Suggested Action</p> <p>For UNIX systems, make sure the kernel configurable parameters <code>NPROC</code> and <code>MAXUPRC</code> are set high enough to allow process creation.</p>

WASSPI-14

Description	Unable to find file< <i>file_name</i> > .
Severity	Critical
Help Text	<p>Probable Cause A file required by the JBoss AS SPI data collector could not be found.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the file in question and the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Run the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected.

WASSPI-15

Description	Error parsing XML document <i><file_name></i> .
Severity	Critical
Help Text	<p>Probable Cause An error occurred while parsing the specified XML document.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. If the XML document was provided by the user, correct the document. See the <i>HP Operations Manager Smart Plug-in for JBoss Application Server Installation and Configuration Guide</i> for more information about the correct format for a user-defined metric definition document.3. If the XML document is a document that is shipped with the JBoss AS SPI, run the SPI Admin → Discover or Configure JBSSPI tool to reinstall the JBoss AS SPI configuration files.

WASSPI-16

Description	A bad filter (< <i>filter_value</i> >) was specified for metric < <i>metric_number</i> > .
Severity	Major
Help Text	<p>Probable Cause A metric filter is incorrectly specified in the metric definitions XML document.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. If the metric is specified in an XML document that was provided by the user, correct the document. See the <i>HP Operations Manager Smart Plug-in for JBoss Application Server Installation and Configuration Guide</i> for more information about the correct format for a user-defined metric definition document.2. If the metric is a pre-defined metric that is shipped with the JBoss AS SPI, run the SPI Admin → Discover or Configure JBSSPI tool to reinstall the JBoss AS SPI configuration files.

WASSPI-17

Description	Could not access MBean server on server (< <i>server name</i> >) at url=< <i>url</i> > , port=< <i>port</i> > .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>A problem occurred while the JBoss AS SPI data collector was requesting access to the JMX MBean server on the JBoss server. This could be caused by:</p> <ol style="list-style-type: none"> 1. The JNDI lookup to find the JMX MBean server in the application server failed. 2. The LOGIN name specified in the JBoss AS SPI configuration does not have the correct permissions in the application server. 3. The PASSWORD specified in the JBoss AS SPI configuration is incorrect. <p>Suggested Action</p> <ol style="list-style-type: none"> 1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp. 2. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that the LOGIN and PASSWORD properties are correct for the server in question. 3. In the JBoss Administration Console, verify that the user is a valid JBoss user and has the correct permissions. To set the correct permissions, refer to the <i>HP Operations Smart Plug-in for JBoss Application Server Installation and Configuration Guide</i> .

WASSPI-18

Description	Error logging to datasource <i><datasource_class_name></i> . Logging process returned exit code <i><exit_code></i>
Severity	Warning
Help Text	<p>Probable Cause</p> <p>The ddlog process started by the JBoss AS SPI data collector returned a non-zero error code.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Identify the steps to reproduce the problem.2. Run the SPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem.3. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-19

Description	Encountered problem instantiating XSLT transformer with <i><file_name></i>
Severity	Major
Help Text	<p>Probable Cause The XSL document that specifies the auto action report output contains errors.</p> <p>Suggested Action Run the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected.</p>

WASSPI-20

Description	Encountered problem creating report for metric <i><metric_number></i>
Severity	Major
Help Text	<p>Probable Cause An error occurred while producing a text report for the specified metric.</p> <p>Suggested Action Run the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected.</p>

WASSPI-21

Description	Encountered problem instantiating factory implementation <i><class name></i>
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The java property specifying the class name is incorrect or the class does not implement the AppServerFactory interface.</p> <p>Suggested Action</p> <p>Verify that the java property appserver.implementation is set to the fully qualified name of the class which implements the AppServerFactory interface.</p> <p>For example, if set on the java command-line:</p> <pre>-Dappserver.implementation=com.hp.openview.wasspi.WLSAppServerFactory</pre>

WASSPI-23

Description	Error initializing collector analyzer for server <server_name> .
Severity	Critical
Help Text	<p>Probable Cause An exception was encountered while preparing to monitor server <server_name> .</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Identify the steps to reproduce the problem.3. Run the SPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem4. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-24

Description	Error logging in to server <i><server_name></i> with login <i><login></i> .
Severity	Critical
Help Text	<p>Probable Cause A security exception occurred while logging in to server <i><server_name></i> .</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool on the managed node on which the error occurred and verify that you have specified the correct login and password properties.2. Verify that the login has appropriate permissions.

WASSPI-26

Description	The data logging process for server <i><server_name></i> timed-out.
Severity	Major
Help Text	<p>Probable Cause</p> <p>Depending on your configuration, either HP Performance Agent or CODA failed to exit before the time-out.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Restart CODA using command <code>opcagt -start</code>.2. Restart HP Performance Agent using command <code>mwa restart</code>.

WASSPI-27

Description	RMI collector unable to process <i><command></i> .
Severity	Warning
Help Text	<p>Probable Cause An exception was encountered while performing an rmid related operation.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Identify the steps to reproduce the problem.3. Run the SPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem.4. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-28

Description	RMID on port <i><port></i> has been <i><status></i> .
Severity	Normal

WASSPI-29

Description	Collector server <i><server id></i> for Java Home <i><path></i> has been started.
Severity	Normal

WASSPI-30

Description	Failed to start <i><rmid_path></i> on port <i><port></i> .
Severity	Critical
Help Text	<p>Probable Cause The specified path is already in use.</p> <p>Suggested Action Run the SPI Admin → Discover or Configure JBSSPI tool. Set the RMID_PORT property to a port number which is not currently in use.</p>

WASSPI-31

Description	Lost connection to RMI collector while processing <i><command></i> .
Severity	Warning

WASSPI-32

Description	Unable to retrieve metadata for mbean <i><JMX-ObjectName></i> .
Severity	Warning

WASSPI-33

Description	No actions matched server <i><server name></i> , version <i><version></i> .
Severity	Warning
Help Text	<p>Probable Cause JMXAction elements define FromVersion and ToVersion tags which do not match the server version.</p> <p>Suggested Action If the action is valid on the server, adjust either the JMXAction definition's FromVersion/ToVersion elements or the server's VERSION property.</p>

WASSPI-34

Description	Metric <i><metric id></i> does not define any actions.
Severity	Warning
Help Text	<p>Probable Cause The metric ID specified with the action -m option does not define a JMXActions element.</p> <p>Suggested Action Correct the action -m option if an incorrect metric ID was specified. Otherwise, add a JMXActions definition to the metric definition.</p>

WASSPI-35

Description	Error executing action <i><action command-line></i>
Severity	Major
Help Text	<p>Probable Cause An unexpected error occurred while executing the action.</p> <p>Suggested Action View the managed node's errorlog to determine the root cause which is logged following the error message.</p>

WASSPI-36

Description	MBean <i><JMX objectname></i> on server <i><server name></i> , does not expose operation <i><operation name></i> .
Severity	Warning
Help Text	<p>Probable Cause An action's JMXCalls element defines an operation not exposed by the specified MBean.</p> <p>Suggested Action Correct the JMXCalls element or remove the operation from the element.</p>

WASSPI-37

Description	MBean < <i>JMX objectname</i> > on server < <i>server name</i> > , does not expose attribute < <i>attribute name</i> > for write.
Severity	Warning
Help Text	<p>Probable Cause An action's JMXCalls element defines a write attribute exposed by the specified MBean as read-only.</p> <p>Suggested Action If it is a custom MBean, update the MBean's management interface so the attribute is writable. Otherwise, remove the attribute definition from the JMXCalls element.</p>

WASSPI-38

Description	MBean <i><JMX objectname></i> on server <i><server name></i> , does not expose attribute <i><attribute name></i> .
Severity	Warning
Help Text	<p>Probable Cause An action's JMXCalls element defines an attribute not exposed by the specified MBean ObjectName.</p> <p>Suggested Action Correct the JMXCalls element or remove the attribute from the element.</p>

WASSPI-39

Description	Error invoking operation <i><operation name></i> on MBean <i><JMX objectname></i> .
Severity	Major
Help Text	<p>Probable Cause</p> <p>An unexpected error occurred while invoking an operation on the specified MBean. The managed resource might have thrown an exception.</p> <p>Suggested Action</p> <p>View the managed node's errorlog to determine the root cause which is logged following the error message.</p>

WASSPI-40

Description	Error setting attribute <i><attribute name></i> on MBean <i><JMX objectname></i> .
Severity	Major
Help Text	<p>Probable Cause</p> <p>An unexpected error occurred while setting an attribute on the specified MBean. The managed resource might have thrown an exception.</p> <p>Suggested Action</p> <p>View the managed node's errorlog to determine the root cause which is logged following the error message.</p>

WASSPI-41

Description	Error getting attribute <i><attribute name></i> from MBean <i><JMX objectname></i> .
Severity	Major
Help Text	<p>Probable Cause An unexpected error occurred while getting an attribute from the specified MBean. The managed resource might have thrown an exception.</p> <p>Suggested Action View the managed node's errorlog to determine the root cause which is logged following the error message.</p>

WASSPI-42

Description	Error running command <i><command></i> .
Severity	Critical
Help Text	<p>Probable Cause A command started by the JBoss AS SPI collector reported an error.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Identify the steps to reproduce the problem.2. Run the SPI Admin → Start Tracing tool to turn on tracing.3. Reproduce the problem4. Run the SPI Admin → Stop Tracing tool to turn off tracing.5. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-43

Description	Error publishing event <i><event-type></i> .
Severity	Major
Help Text	<p>Probable Cause An unexpected error occurred while a publisher was handling a metric or collect event.</p> <p>Suggested Action View the managed node's error log to determine the cause which is logged following the error message.</p>

WASSPI-201

Description	File <filename> not found.
Severity	Critical
Help Text	<p>Probable Cause A configuration file could not be found.</p> <p>Suggested Action Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that the correct information has been specified for the JBoss servers on the managed node on which the error occurred.</p>

WASSPI-202

Description	Cannot read file <filename>
Severity	Critical
Help Text	<p>Probable Cause</p> <ul style="list-style-type: none">• A file could not be opened or it could not be found.• Permissions might be incorrect or a directory might be corrupt. <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that the correct information has been specified for the JBoss servers on the managed node on which the error occurred.2. Verify that the permissions are correct for the HP Operations agent user to read this file.

WASSPI-203

Description	Cannot write file <filename>
Severity	Critical
Help Text	<p>Probable Cause Permissions might be incorrect, or a file or directory might be corrupt.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that the correct information has been specified for the JBoss servers on the managed node on which the error occurred.2. Verify that the permissions are correct for the HP Operations agent user to write this file.

WASSPI-204

Description	Error sending <code>opcmmsg</code> <i><message></i>
Severity	Critical
Help Text	<p>Probable Cause</p> <p>There was a problem running <code>opcmmsg</code>. <code>opcmmsg</code> may be missing or not have permissions to execute.</p> <p>Suggested Action</p> <p>Confirm that the JBSSPI-Messages policy has been deployed.</p>

WASSPI-205

Description	Error sending opcmn < <i>command</i> >
Severity	Critical
Help Text	<p>Probable Cause</p> <p>There was a problem running opcmn. opcmn may be missing or not have permissions to execute (HPOM installation errors) or the system process table may be full.</p> <p>Suggested Action</p> <p>Confirm that HPOM is properly installed and deployed to the managed node. Ensure that the process table is not full. If it is, consider having the system administrator increase it.</p>

WASSPI-206

Description	Cannot read directory < <i>directory</i> >
Severity	Critical
Help Text	<p>Probable Cause The permissions on the directory prevent the HP Operations agent user from reading it or the directory is corrupt.</p> <p>Suggested Action Verify that the permissions are correct for the HP Operations agent user for this directory.</p>

WASSPI-207

Description	Cannot move <filename> to <filename> .
Severity	Critical
Help Text	<p>Probable Cause</p> <ol style="list-style-type: none">1. Insufficient permissions.2. Insufficient disk space.3. File table problems. <p>Suggested Action</p> <ol style="list-style-type: none">1. Verify that the permissions are correct for the HP Operations agent user.2. Verify that there is enough disk space to create files.3. Run the SPI Admin → Discover or Configure JBSSPI tool.

WASSPI-208

Description	The SPI must be configured before it can be used.
Severity	Critical
Help Text	<p>Probable Cause The SPI has not been configured on this node.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that the correct information has been specified for the JBoss servers on the managed node on which the error occurred.2. Run the SPI Admin → Verify tool on the managed node to confirm that the SPI has been successfully configured.

WASSPI-209

Description	Cannot contact JBoss Server.
Severity	Critical
Help Text	<p>Probable Cause</p> <ul style="list-style-type: none">• The server could be down or not responding.• The SPI might be configured incorrectly. <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool.2. Run the SPI Admin → Verify tool on the managed node to confirm that the SPI has been successfully configured.

WASSPI-210

Description	Cannot configure the SPI.
Severity	Critical
Help Text	<p>Probable Cause The SPI configuration process failed.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.2. Run the SPI Admin → Discover or Configure JBSSPI tool on the managed node.

WASSPI-211

Description	Cannot create directory < <i>directory</i> > .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>There are insufficient permissions for the HP Operations agent user to create the directory or there is insufficient disk space.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Verify that the permissions are correct for the HP Operations agent user for this directory.2. Verify that there is enough disk space.

WASSPI-213

Description	Improper parameters to program <i><name></i> . Usage: <i><usage></i> .
Severity	Critical
Help Text	<p>Probable Cause The parameters to the program are incorrect.</p> <p>Suggested Action Correct the parameters.</p>

WASSPI-214

Description	Cannot run program <i><program name></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The program failed to run. It might be missing, permissions might be incorrect, the process table might be full.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Verify that the file exists. If it is a SPI program and the file is missing, run the SPI Admin → Discover or Configure JBSSPI tool again on the managed node.2. Verify that the permissions are correct for the HP Operations agent user.

WASSPI-215

Description	A JBoss server was not found in <directory> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The directory specified as <code>HOME</code> in the SPI configuration does not exist on the managed node.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Verify that JBoss is installed on the managed node.2. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that the correct information has been specified <code>HOME</code> on the managed node on which the error occurred.

WASSPI-216

Description	Configuration variable <i><name></i> missing for server <i><server_name></i> .
Severity	Critical
Help Text	<p>Probable Cause A required SPI configuration variable was not found.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool.2. Verify that the correct information has ben specified in the configuration for the managed node on which the error occurred.

WASSPI-218

Description	JBoss monitoring has been turned OFF for <i><server_name></i> .
Severity	Warning
Help Text	<p>Probable Cause Collection has been turned off for the specified server.</p> <p>Suggested Action If desired, collection can be turned on by running the SPI Admin → Start Monitoring tool.</p>

WASSPI-219

Description	JBoss monitoring has been turned ON for <server_name> .
Severity	Critical
Help Text	<p>Probable Cause Collection has been turned on for the specified server.</p> <p>Suggested Action If desired, collection can be turned off by running the SPI Admin → Stop Monitoring tool.</p>

WASSPI-221

Description	< <i>file_name</i> > does not exist.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The specified file does not exist. If it is a log file, no entries were ever logged to it. If it is a property file, it has not been configured.</p> <p>Suggested Action</p> <p>Log files: If there have never been any entries written to the file, no action is necessary. Otherwise, run the SPI Admin → Discover or Configure JBSSPI tool.</p> <p>Property files: Run the SPI Admin → Discover or Configure JBSSPI tool.</p>

WASSPI-222

Description	<file_name> is empty.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The specified file is empty. If it is a log file, no entries were ever logged to it, or the entries were cleaned out. If it is a property file, it is not properly configured.</p> <p>Suggested Action</p> <p>If the file is a configuration file, run the SPI Admin → Discover or Configure JBSSPI tool.</p>

WASSPI-223

Description	Cannot read <i><file_name></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <ol style="list-style-type: none">1. A file could not be opened or it could not be found.2. Permissions might be incorrect or a directory might be corrupt. <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool. Verify that you have specified the correct information for the JBoss servers on the managed node on which the error occurred.2. Verify that the permissions are correct for the HP Operations agent user to read this file.

WASSPI-224

Description	ddfcomp returned an error configuring <name> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>ddfcomp returned an error. This could be because neither OVPA nor CODA is installed on the system or because of an error occurred while configuring the HP Performance Agent.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. If the performance agent is not installed, this error can be ignored.2. Otherwise, identify the steps to reproduce the problem.3. Run the SPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem4. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-225

Description	No logfiles were found. Did you run Discover or Configure JBSSPI?
Severity	Critical
Help Text	<p>Probable Cause The logfile list is empty.</p> <p>Suggested Action Run the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected.</p>

WASSPI-226

Description	Cannot read file <file_name> .
Severity	Critical
Help Text	<p>Probable Cause</p> <ul style="list-style-type: none">• A file could not be opened or it could not be found.• Permissions might be incorrect or a directory might be corrupt. <p>Suggested Action</p> <ol style="list-style-type: none">1. Run the SPI Admin → Discover or Configure JBSSPI tool.2. Verify that you have specified the correct information for the JBoss servers on the managed node on which the error occurred.3. Verify that the permissions are correct for the HP Operations agent user to read this file.

WASSPI-227

Description	No HP Performance Agent is installed. Data source will not be configured.
Severity	Warning
Help Text	<p>Probable Cause</p> <p>If a performance application is available, the SPI integrates with it. This warning indicates that none is available.</p> <p>Suggested Action</p> <p>If you must have a performance agent installed, verify that it is installed correctly and is running; reinstall it if necessary. Otherwise, this message can be ignored.</p>

WASSPI-228

Description	ddflog returned an error logging <i><logfile-name></i> : <i><system-error-msg></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>ddflog returned an error. This could be because the SPI was not properly configured to support logging performance data.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Redeploy SPI for JBoss Application Server and SPI Data Collector instrumentation on the node having the problem.2. Examine the system error message, if any, for clues to the problem.3. Run the SPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem4. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.

WASSPI-229

Description	Cannot connect to directory < <i>directory-name</i> >
Severity	Critical
Help Text	<p>Probable Cause The directory does not exist, or the user the agent is running under does not have appropriate permissions to the directory.</p> <p>Suggested Action Run the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected.</p>

WASSPI-230

Description	Cannot get lock <i><file></i> after <i><time></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The lock file <i><file></i> was not cleared in the <i><time></i> indicated. This could be due to a very slow running or hung SPI process. Possibly a SPI process that had a lock was killed before the lock it had open had been cleared.</p> <p>Suggested Action</p> <p>Make sure no SPI processes are running. Manually remove the lock file.</p>

WASSPI-231

Description	Error starting JRE <JVM_file> : <message>
Severity	Critical
Help Text	<p>Probable Cause</p> <p>Some error occurred starting Java. This could be that the specified JVM does not exist, has bad permissions, or that there are system resource limitations such as process table entries or memory, or that the JAVA_HOME variable in the SPI SiteConfig file is not set correctly.</p> <p>Suggested Action</p> <p>Check for other errors generated at the same time, they might indicate the real cause. If the specified file does not exist, check the JAVA_HOME or HOME variables in the SPI configuration file by running the SPI Admin → Discover or Configure JBSSPI tool with the managed node selected.</p>

WASSPI-232

Description	Server <name> specified on command line, but not in configuration.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>There was a -i or -e specified on the collector command line which specified a server name that was not listed in the SPI configuration. The collector only knows about servers listed in the configuration.</p> <p>Suggested Action</p> <ol style="list-style-type: none">1. Specify a correct server name on the command line.2. Run the SPI Admin → Discover or Configure JBSSPI tool.3. Verify the JBoss Server names are correctly listed and spelled in the SPI configuration file.

WASSPI-234

Description	Error running program <i><file></i> , return value: <i><n></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The SPI attempted to run some application or auxiliary program and encountered an error doing so. The application or program is shown in the message as <i><file></i> and the return code from attempting to run it is shown as <i><n></i> .</p> <p>Suggested Action</p> <p>If the tool is a SPI tool, make sure the SPI has been installed and configured correctly. If not, reinstall or reconfigure. If it is a system tool, make sure there are no system problems that prevent the tool from running.</p>

WASSPI-235

Description	Restart of OVPA agent failed.
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The SPI attempted to automatically restart the OVPA agent and the automatic attempt failed.</p> <p>Suggested Action</p> <p>Restart the OVPA agent manually using the <code>mwa restart server</code> command.</p>

WASSPI-236

Description	Failure when running XSLT on <i><xml></i> , with stylesheet <i><xsl></i> : <i><message></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>As part of setting up graphing for user defined metrics, a translation of the UDM XML is done. This message indicated that the translation failed for some reason.</p> <p>Suggested Action</p> <p>Review the message shown. It is most likely that there is an error in the XML.</p>

WASSPI-237

Description	Setting up Data Source <i><datasource></i> .
Severity	Normal
Help Text	This is an informational message that a HP Performance Manager or OVPA was setup.

WASSPI-238

Description	No User Defined Metrics found
Severity	Warning
Help Text	<p>Probable Cause The JMX Metric Builder → JBSSPI → UDM Graph Enable tool was run, but no UDM metrics had been defined.</p> <p>Suggested Action Check that the UDM XML file has been named correctly.</p>

WASSPI-241

Description	Cannot delete file <i><file></i> .
Severity	Critical
Help Text	<p>Probable Cause</p> <p>The SPI attempted to delete a file, but was unable to do so. It might be that the protection of the file is set so that the HP Operations agent user cannot delete it, or that there is some system problem preventing the file from being deleted.</p> <p>Suggested Action</p> <p>Make sure the protection of the file is correct.</p>

WASSPI-245

Description	Unrecognized variable <var> is configured for node <node>
Severity	Critical
Help Text	<p>Probable Cause An unexpected variable was configured for the node</p> <p>Suggested Action Launch the SPI Admin → Discover or Configure JBSSPI tool from the HP Operations Operations console and select the node from the list. Look for the variable <var> included in the message and make sure that it is valid. Re-initiate the Discovery process by selecting OK on the Confirm Operation window.</p>

WASSPI-248

Description	Cannot deploy <i><policy></i> policy group to <i><node></i> .
Severity	Warning
Help Text	Suggested Action Refer the information on policy deployment in the HP Operations Manager for Windows online help. If the problem still persists, call HP Support.

WASSPI-249

Description	Cannot get the agent installation directory for <node> .
Severity	Critical
Help Text	<p>Suggested Action</p> <p>Redeploy the JBSSPI discovery policy on the managed node. Make sure to uncheck the "deploy policy only if version is newer" checkbox if selected. If the problem still persists, call HP Support and provide the support representative with the following:</p> <ul style="list-style-type: none">• The steps and other information on reproducing the problem• The trace files which are located in%OvInstallDir%\install\WASSPI\JBSSPI\English\Discovery\log directory

WASSPI-254

Description	Java exited with an error.
Severity	Critical
Help Text	<p>Probable Cause While running the collector or other java application, either Java encountered an error of some kind, or the Java application exited with an error exit.</p> <p>Suggested Action Check for other errors generated at the same time, they might indicate the real cause. Review the SPI's error log, it might give some other clues.</p>

Others

Description	An unknown error appears in the JBoss AS SPI error log.
Severity	Critical
Help Text	<div><div>Suggested Action</div><div><div><div>1. Refer to the text following the error message in the JBoss AS SPI error log to help identify the underlying cause of the problem. You can view the SPI error log for a managed node by using the SPI Admin → View Error Files tool. The error message can be identified by the date/time stamp.</div><div>2. Identify the steps to reproduce the problem.</div><div>3. Run the SPI Admin → Start Tracing tool to turn on tracing. Try to reproduce the problem.</div><div>4. Run the SPI Admin → Self-Healing Info tool. Contact HP support with the information gathered by this tool.</div></div></div></div>

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