



# **Red Hat JBoss Fuse 6.2**

## **JON Performance Metrics Reference**

Fuse Plugin Pack for JBoss ON



# Red Hat JBoss Fuse 6.2 JON Performance Metrics Reference

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Fuse Plugin Pack for JBoss ON

JBoss A-MQ Docs Team

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## Abstract

This guide describes the information you can collect about your Fuse managed resources and then display it in JBoss Operation Network.

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# CHAPTER 1. MONITORING FUSE RESOURCES

## Abstract

Using Red Hat JBoss Operations Network (JON), you can discover, import, and monitor Red Hat JBoss Fuse resources.

## 1.1. INSTALLATION PROCEDURE

The JBoss ON for Fuse plugin pack is not installed with the JON base distribution. You must download and install it separately after you have installed the JON base distribution.

To install **JBoss ON for Fuse**:

1. Navigate to the Red Hat [Customer Portal>Downloads>View All Downloads by Category](#).
2. Under the category JBoss Development and Management, select **Red Hat JBoss Operations Network**
3. Select **JBoss ON for Fuse** under Management in the sidebar menu.
4. Click **Download** next to Red Hat JBoss ON 3.X.0 Plugin Pack for Red Hat JBoss Fuse **6.2**.
5. Unzip the plugin package (*JON-3.X.0-Fuse/jon-plugin-pack-fuse-3.X.0.GA.zip*) into a temporary directory.
6. Install the jar files in one of two ways:

- Hot Deploy

Copy the unpacked jar files into the JON */installDir/server/plugins/* directory. For details, see the [JBoss Operations Network Installation Guide](#).

- JON Server UI

For details, see the [JBoss Operations Network Installation Guide](#), or watch the video [Installing JBoss Operations Network - Part 4, Installing JON Agent Plugins](#).



## CHAPTER 2. JBOSS ON MANAGED FUSE RESOURCES

### OVERVIEW

Metrics are collected for managed resources that are deployed in Red Hat JBoss Fuse.

- Apache ActiveMQ managed resources
- Apache Camel managed resources
- Apache CXF managed resources
- Apache ServiceMix 3.x managed resources
- Apache ServiceMix 4.x managed resources
- JBoss Fuse managed resources
- Fuse Fabric managed resources



#### NOTE

This guide describes the metrics collected on Apache Camel, Apache CXF, Apache ServiceMix x.x, JBoss Fuse, and Fuse Fabric managed resources only. The Performance Metrics Reference for Red Hat JBoss A-MQ describes the metrics collected on Apache ActiveMQ-managed resources.



#### IMPORTANT



Newly added resources, such as ActiveMQ queues and topics, will not appear in JON's list of resources until the JON agent discovers and adds them into inventory. By default, the agent scans for services at twenty-four hour intervals, but you can easily change the default interval either through the JON console or by resetting it in the agent's configuration file. For details, see *Setting Discovery Scan Intervals* in the *Configuring JBoss ON Servers and Agents* guide at <https://access.redhat.com/site/documentation/>.




Based on a managed resource's metrics, you can invoke Control Operations on the resource to avoid or correct throughput and performance problems.

### AVAILABILITY STATUS

For all JBoss Fuse managed resources, this metric is of category Availability and of measurement type Dynamic. It indicates the availability status of a resource during a given time slice.

**Table 2.1. Availability Indicators**

Icon	State	Description
	Available (Up)	Resource is running and responding to availability checks.
	Down	Resource is not responding to availability checks.

Icon	State	Description
	Unknown	The agent has no record of the resource's state.  This could be due to the resource having been newly added to inventory, so has not yet been checked for availability. Or it could be that the agent is down.
	Disabled	The resource has been administratively marked as unavailable.  In reality, the resource could be running or stopped. When a resource is disabled, the server ignores availability reports from the agent to prevent unnecessary alerts triggered by known down (or cycling) states.
	Mixed (resource groups only)	Members in a resource group have different availability states.

## PER MINUTE METRICS

Because metrics of type Trends Up and category Throughput continuously increase, the rate of change becomes more important to track than the total number of exchanges. So JBoss ON automatically calculates and creates a secondary Per Minute metric for many of these type of exchanges. By default, the Per Minute metrics, rather than their counterparts, are enabled and charted.

## REFERENCING PROPERTIES IN DYNAMIC GROUP DEFINITION EXPRESSIONS

To reference configuration properties and traits in Dynamic Group Definition expressions, you must use the item's internal name.

## CHAPTER 3. APACHE CAMEL MANAGED RESOURCES

### Abstract

Apache Camel metrics are collected for routes that are deployed in Red Hat JBoss ON managed platforms. Based on a resource's metrics, you can invoke Control Operations on the resource to avoid or correct throughput and performance problems.

### 3.1. AGENT METRIC COLLECTORS

The main service entries, which collect the required metrics, are:

- Camel Context
- Camel Component
- Camel Endpoint
- Camel Route
- Camel Processor



#### NOTE

By default, Availability status is collected on all Camel services. Only the Camel Route and Camel Processor services collect additional metrics.

### 3.2. CAMEL CONTEXT SERVICE

#### Overview

Description:	Camel Context
Singleton:	no
Plugin:	Camel

#### Parent Resource Types

- JMX Server Platform
- Servicemix3 Server Platform
- Servicemix4 Server Platform
- Fabric Container Platform
- JBoss Fuse Container Platform
- JBoss AS Server Platform

## Child Resource Types

- [Section 3.3, “Camel Component Service”](#)
- [Section 3.4, “Camel Endpoint Service”](#)
- [Section 3.6, “Camel Route Service”](#)
- [Section 3.5, “Camel Processor Service”](#)

## Connection Properties



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

Name	Description	Required	Internal Name
Camel Id	The name of the Camel component	yes	CamelId
Camel Version	The Camel version	yes	CamelVersion
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Context	The name of the Camel Context	yes	context
Name	Name	yes	name

## Metrics



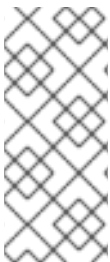
### NOTE

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

Name	Type	Description	Internal Name
------	------	-------------	---------------

Name	Type	Description	Internal Name
Exchanges Completed	measurement	Indicates the total number of exchanges processed successfully since start-up or the last reset operation	ExchangesCompleted
Exchanges Completed per Minute	measurement	Indicates the total number of exchanges processed successfully per minute since start-up or the last reset operation	ExchangesCompleted
Exchanges Failed	measurement	Indicates the total number of exchanges that failed to process since start-up or the last reset operation.	ExchangesFailed
Exchanges Failed per Minute	measurement	Indicates the total number of exchanges that failed to process per minute since start-up or the last reset operation.	ExchangesFailed
Exchanges Total	measurement	Indicates the total number of exchanges, passed or failed, that processed since start-up or the last reset operation.	ExchangesTotal
Exchanges Total per Minute	measurement	Indicates the total number of exchanges, passed or failed, that processed per minute since start-up or the last reset operation.	ExchangesTotal
Min Processing Time	measurement	Indicates the shortest time, in milliseconds, to process an exchange since start-up or the last reset operation.	MinProcessingTime

Name	Type	Description	Internal Name
Mean Processing Time	measurement	Indicates the average processing time, in milliseconds, for all exchanges processed since start-up or the last reset operation.	MeanProcessingTime
Max Processing Time	measurement	Indicates the longest time, in milliseconds, to process an exchange since start-up or the last reset operation.	MaxProcessingTime
Total Processing Time	measurement	Indicates the total processing time, in milliseconds, to process all exchanges since start-up or the last reset operation.	TotalProcessingTime
Last Processing Time	measurement	Indicates the time, in milliseconds, it took to process the last exchange.	LastProcessingTime
State	trait	String description of the Camel Resource State.	State



## NOTE

All **Exchanges\*** metrics are of measurement type Trends Up and category Throughput. Because Trends Up metrics continuously increase, the rate of change becomes more important to track than the total number of exchanges, so JBoss ON automatically calculates and creates a secondary Per Minute metric for each **Exchanges\*** metric. By default, the Per Minute metrics, rather than their counterparts, are enabled and charted.

## Configuration Properties

none

## Operations

You can invoke control operations to avoid or correct throughput and performance problems.

Name	Description
<b>start</b>	The start operation starts up the selected camel context.

Name	Description
<b>stop</b>	The stop operation stops the selected camel context immediately.
<b>suspend</b>	The suspend operation pauses the routing of messages and preserves the state of the route, after the completion of all inflight exchanges.
<b>resume</b>	The resume operation resumes the processing of messages after a call to suspend.

## Package Types

none

## 3.3. CAMEL COMPONENT SERVICE

### Overview

Description:	Camel Component
Singleton:	no
Plugin:	Camel

### Parent Resource Types

- [Section 3.2, “Camel Context Service”](#)

### Child Resource Types

none

### Connection Properties



#### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

Name	Description	Required	Internal Name
Component Name	The name of the Camel component	yes	ComponentName

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Name	yes	name

## Metrics

none

## Configuration Properties

none

## Operations

none

## Package Types

none

## 3.4. CAMEL ENDPOINT SERVICE

### Overview

Description:	Camel Endpoint
Singleton:	no
Plugin:	Camel

### Parent Resource Type

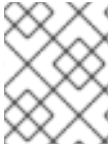
- [Section 3.2, “Camel Context Service”](#)

### Child Resource Types

none

### Connection Properties



**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

Name	Description	Required	Internal Name
Endpoint Uri	The uri of the Camel consumer endpoint	yes	EndpointUri
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Name	yes	name

**Metrics**

none

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**3.5. CAMEL PROCESSOR SERVICE****Overview**

Description:	Camel Processor
Singleton:	no
Plugin:	Camel

**Parent Resource Types**

- [Section 3.2, “Camel Context Service”](#)

## Child Resource Types

none

## Connection Properties



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

Name	Description	Required	Internal Name
Route Id	The name of the Camel route	yes	RouteId
Processor Id	The name of the processor in the Camel Route	yes	ProcessorId
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Name	yes	name

## Metrics



### NOTE

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

Name	Type	Description	Internal Name
Exchanges Completed	measurement	Indicates the total number of exchanges the selected processor has processed successfully since processor start-up or the last <b>reset</b> operation.	ExchangesCompl
Exchanges Completed Per Minute	measurement	Indicates the total number of exchanges the selected processor has processed successfully per minute since processor start-up or the last <b>reset</b> operation.	ExchangesCompl

Name	Type	Description	Internal Name
Exchanges Failed	measurement	Indicates the total number of exchanges that the selected processor has failed to process since processor start-up or the last <b>reset</b> operation.	ExchangesFailed
Exchanges Failed Per Minute	measurement	Indicates the total number of exchanges that the selected processor has failed to process per minute since processor start-up or the last <b>reset</b> operation.	ExchangesFailed
Exchanges Total	measurement	Indicates the total number of exchanges, passed or failed, that the selected processor has processed since route start-up or the last <b>reset</b> operation.	ExchangesTotal
Exchanges Total Per Minute	measurement	Indicates the total number of exchanges, passed or failed, that the selected processor has processed per minute since route start-up or the last <b>reset</b> operation.	ExchangesTotal
Min Processing Time	measurement	Indicates the shortest time, in milliseconds, to process an exchange since processor start-up or the last <b>reset</b> operation.	MinProcessingTir
Mean Processing Time	measurement	Indicates the average processing time, in milliseconds, for all exchanges processed since processor start-up or the last <b>reset</b> operation.	MeanProcessingT
Max Processing Time	measurement	Indicates the longest time, in milliseconds, to process an exchange since processor start-up or the last <b>reset</b> operation.	MaxProcessingTir
Total Processing Time	measurement	Indicates the total processing time, in milliseconds, of all exchanges processed since processor start-up or the last <b>reset</b> operation.	TotalProcessingTi
Last Processing Time	measurement	Indicates the time, in milliseconds, it took the selected processor to process the last exchange.	LastProcessingTir
State	trait	A string describing the state of the Camel resource.	State

**NOTE**

All **Exchanges\*** metrics are of measurement type Trends Up and category Throughput. Because Trends Up metrics continuously increase, the rate of change becomes more important to track than the total number of exchanges, so JBoss ON automatically calculates and creates a secondary Per Minute metric for each **Exchanges\*** metric. By default, the Per Minute metrics, rather than their counterparts, are enabled and charted.

**Configuration Properties**

none

**Operations**

You can invoke control operations to avoid or correct throughput and performance problems.

Name	Description
<b>reset</b>	The reset operation immediately clears all counters, thus all statistics, for the specified processor.
<b>start</b>	The start operation starts up the selected processor and all of its services.
<b>stop</b>	The stop operation immediately stops the selected processor.

**Package Types**

none

**3.6. CAMEL ROUTE SERVICE****Overview**

Description:	Camel Route
Singleton:	no
Plugin:	Camel

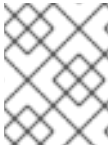
**Parent Resource Types**

- [Section 3.2, “Camel Context Service”](#)

**Child Resource Types**

none

## Connection Properties



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

Name	Description	Required	Internal Name
Route Id	The name of the Camel route	yes	RoutelId
Endpoint Uri	The uri of the consumer endpoint in the Camel route	yes	EndpointUri
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Name	yes	name

## Metrics



### NOTE

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

Name	Type	Description	Internal Name
Exchanges Completed	measurement	Indicates the total number of exchanges the route has processed successfully since route start-up or the last <b>reset</b> operation.	ExchangesCompl
Exchanges Completed Per Minute	measurement	Indicates the total number of exchanges the route has processed successfully per minute since route start-up or the last <b>reset</b> operation.	ExchangesCompl
Exchanges Failed	measurement	Indicates the total number of exchanges that the route has failed to process since route start-up or the last <b>reset</b> operation.	ExchangesFailed

Name	Type	Description	Internal Name
Exchanges Failed Per Minute	measurement	Indicates the total number of exchanges that the route has failed to process per minute since route start-up or the last <b>reset</b> operation.	ExchangesFailed
Exchanges Total	measurement	Indicates the total number of exchanges, passed or failed, that the route has processed since route start-up or the last <b>reset</b> operation.	ExchangesTotal
Exchanges Total Per Minute	measurement	Indicates the total number of exchanges, passed or failed, that the route has processed per minute since route start-up or the last <b>reset</b> operation.	ExchangesTotal
Inflight Exchanges	measurement	Indicates the number of exchanges currently transiting the route.	InflightExchanges
Inflight Exchanges Per Minute	measurement	Indicates the number of exchanges currently transiting the route per minute.	InflightExchanges
Min Processing Time	measurement	Indicates the shortest time, in milliseconds, to process an exchange since route start-up or the last <b>reset</b> operation.	MinProcessingTir
Mean Processing Time	measurement	Indicates the average processing time, in milliseconds, for all exchanges processed since route start-up or the last <b>reset</b> operation.	MeanProcessingT
Max Processing Time	measurement	Indicates the longest time, in milliseconds, to process an exchange since route start-up or the last <b>reset</b> operation.	MaxProcessingTir
Total ProcessingTime	measurement	Indicates the total processing time, in milliseconds, of all exchanges processed since route start-up or the last <b>reset</b> operation.	TotalProcessingTi
Last Processing Time	measurement	Indicates the time, in milliseconds, it took the route to process the last exchange.	LastProcessingTir
State	trait	A string describing the state of the Camel resource.	State



## NOTE

All **Exchanges\*** metrics are of measurement type Trends Up and category Throughput. Because Trends Up metrics continuously increase, the rate of change becomes more important to track than the total number of exchanges, so JBoss ON automatically calculates and creates a secondary Per Minute metric for each **Exchanges\*** metric. By default, the Per Minute metrics, rather than their counterparts, are enabled and charted.

## Configuration Properties

none

## Operations

You can invoke control operations to avoid or correct throughput and performance problems.

Name	Description
<b>reset</b>	The reset operation immediately clears all counters, thus all statistics, for the specified route.
shutdown	The shutdown operation immediately stops and shuts down the selected route, pending the completion of all inflight exchanges.
<b>start</b>	The start operation starts up the selected route, including all of its processors and services.
<b>stop</b>	The stop operation immediately stops the selected route, pending the completion of all pending inflight exchanges.

## Package Types

none

## CHAPTER 4. APACHE CXF MANAGED RESOURCES

### Abstract

Apache CXF metrics are collected for web services that are deployed in Red Hat JBoss ON managed platforms. Based on a resource's metrics, you can invoke Control Operations on the resource to avoid or correct throughput and performance problems.

### 4.1. AGENT METRIC COLLECTORS

The main service entries, which collect the required metrics, are:

- CXF Process
- CXF Bus
- CXF Work Queue Manager
- CXF Work Queue
- CXF Endpoint
- CXF Client Operation Counter
- CXF Client Service Counter
- CXF Server Operation Counter
- CXF Server Service Counter



#### NOTE

By default, Availability status is collected on all CXF services. Only the CXF Client Operation Counter, CXF Client Service Counter, CXF Server Operation Counter, and CXF Server Service Counter services collect additional metrics.

### 4.2. CXF PROCESS SERVER (CXF)

#### Overview

Description:	CXF Process
Singleton:	no
Plugin:	CXF

#### Parent Resource Types

- Managed Platforms



## Child Resource Types

- CXF Process JVM Server

## Autodiscovery Process Scans

Name	Query
<code>\${processScan.name}</code>	<pre>process basename match=^java.*,arg - Dcxf.home match=.*,arg  -Dcxf.home match=.*,arg -Dcxf.config.file match=.*</pre>

## Connection Properties

Name	Description	Required	Internal Name
CXF Home	CXF Process Home Directory	yes	cxf.home
Server Resource Key	Java system property that uniquely identifies this Server	yes	resourceKey
Version File Pattern	File name with Server version	yes	versionFile
Home Directory	System property for home directory	yes	homeProperty
Connector Address	JMX Service URL	no	connectorAddress
Principal	JMX login principal/username	no	principal
Credentials	JMX login credentials/password	no	credentials



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

none

## Package Types

none

## 4.3. BUS SERVICE (CXF)

### Overview

Description:	CXF Bus
Singleton:	no
Plugin:	CXF

### Parent Resource Types

- [Section 4.2, “CXF Process Server \(CXF\)”](#)
- JMX Server Platform
- [Section 5.2, “Servicemix3 Server \(Servicemix3\)”](#)
- [Section 6.2, “Servicemix4 Server \(Servicemix4\)”](#)
- [Section 8.1.1, “Fabric Container Server \(Fabric\)”](#)
- [Section 7.1.1, “JBoss Fuse Container Server \(JBossFuse\)”](#)
- JBossAS Server Platform

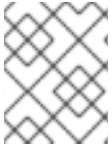
### Child Resource Types

- [Section 4.4, “WorkQueueManager Service \(CXF\)”](#)

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate

Name	Description	Required	Internal Name
Bus ID	CXF Bus ID	yes	bus.id
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

Name	Description
Start	Start the CXF bus.
Stop	Stop the CXF bus.

**Package Types**

none

**4.4. WORKQUEUEMANAGER SERVICE (CXF)****Overview**

Description:	CXF WorkQueueManager
Singleton:	no
Plugin:	CXF

**Parent Resource Types**

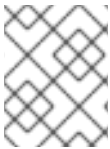
- [Section 4.3, “Bus Service \(CXF\)”](#)

## Child Resource Types

- [Section 4.5, “WorkQueue Service \(CXF\)”](#)

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Bus ID	CXF Bus ID	yes	bus.id
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

Name	Description
Shutdown	Shut down the Work Queue Manager.

## Package Types

none

## 4.5. WORKQUEUE SERVICE (CXF)

### Overview

Description:	CXF WorkQueue
--------------	---------------

Singleton:	no
Plugin:	CXF

## Parent Resource Types

- [Section 4.4, “WorkQueueManager Service \(CXF\)”](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps
Bus ID	CXF Bus ID	yes	bus.id
Name	Workqueue Name	yes	name



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

none

## Package Types

none

## 4.6. CXF ENDPOINT SERVICE (CXF)

### Overview

Description:	CXF Endpoint
Singleton:	no
Plugin:	CXF

### Parent Resource Types

- [Section 4.2, “CXF Process Server \(CXF\)”](#)
- JMX Server Platform
- [Section 5.2, “Servicemix3 Server \(Servicemix3\)”](#)
- [Section 6.2, “Servicemix4 Server \(Servicemix4\)”](#)
- [Section 8.1.1, “Fabric Container Server \(Fabric\)”](#)
- [Section 7.1.1, “JBoss Fuse Container Server \(JBossFuse\)”](#)
- JBossAS\_Server\_Platform

### Child Resource Types

- [Section 4.8, “ClientOperationCounter Service \(CXF\)”](#)
- [Section 4.7, “ClientServiceCounter Service \(CXF\)”](#)
- [Section 4.10, “ServerOperationCounter Service \(CXF\)”](#)
- [Section 4.9, “ServerServiceCounter Service \(CXF\)”](#)

### Connection Properties

Name	Description	Required	Internal Name
Address	Endpoint Address	no	Address
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate

Name	Description	Required	Internal Name
Bus ID	CXF Bus ID	yes	bus.id
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps
Service	Service QName	yes	service
Port	Port Name	yes	port

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

Name	Description
Start	Start a CXF endpoint.
Stop	Stop a CXF endpoint.

**Package Types**

none

**4.7. CLIENTSERVICECOUNTER SERVICE (CXF)****Overview**

Description:	CXF Client Service Counter
Singleton:	no
Plugin:	CXF

## Parent Resource Types

- [Section 4.6, “CXF Endpoint Service \(CXF\)”](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Name	Type	Description	Internal Name
Average Response Time	measurement	Average Response Time	AvgResponseTime
Min Response Time	measurement	Minimum Response Time	MinResponseTime
Max Response Time	measurement	Maximum Response Time	MaxResponseTime
Invocation Count	measurement	Number of Operation invocations	NumInvocations
Invocation Count per Minute	measurement	Number of Operation invocations per minute	NumInvocations
Checked Application Faults	measurement	Number of checked application faults thrown	NumCheckedApplicationFaul
Checked Application Faults per Minute	measurement	Number of checked application faults thrown per minute	NumCheckedApplicationFaul



Name	Type	Description	Internal Name
UnChecked Application Faults	measurement	Number of unchecked application faults thrown	NumUnCheckedApplicationF
UnChecked Application Faults per Minute	measurement	Number of unchecked application faults thrown per minute	NumUnCheckedApplicationF
Logical Runtime Faults	measurement	Number of logical runtime faults thrown	NumLogicalRuntimeFaults
Logical Runtime Faults per Minute	measurement	Number of logical runtime faults thrown per minute	NumLogicalRuntimeFaults
Runtime Faults	measurement	Number of runtime faults thrown	NumRuntimeFaults
Runtime Faults per Minute	measurement	Number of runtime faults thrown per minute	NumRuntimeFaults
Total Handling Time	measurement	Total processing time	TotalHandlingTime
Total Handling Time per Minute	measurement	Total processing time per minute	TotalHandlingTime

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**4.8. CLIENTOPERATIONCOUNTER SERVICE (CXF)****Overview**

Description:	CXF Client Operation Counter
--------------	------------------------------

Singleton:	no
Plugin:	CXF

## Parent Resource Types

- [Section 4.6, “CXF Endpoint Service \(CXF\)”](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Operation	Operation Name	yes	operation
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Name	Type	Description	Internal Name
Average Response Time	measurement	Average Response Time	AvgResponseTime
Min Response Time	measurement	Minimum Response Time	MinResponseTime
Max Response Time	measurement	Maximum Response Time	MaxResponseTime
Invocation Count	measurement	Number of Operation invocations	NumInvocations

Name	Type	Description	Internal Name
Invocation Count per Minute	measurement	Number of Operation invocations per minute	NumInvocations
Checked Application Faults	measurement	Number of checked application faults thrown	NumCheckedApplicationFaults
Checked Application Faults per Minute	measurement	Number of checked application faults thrown per minute	NumCheckedApplicationFaults
UnChecked Application Faults	measurement	Number of unchecked application faults thrown	NumUnCheckedApplicationFaults
UnChecked Application Faults per Minute	measurement	Number of unchecked application faults thrown per minute	NumUnCheckedApplicationFaults
Logical Runtime Faults	measurement	Number of logical runtime faults thrown	NumLogicalRuntimeFaults
Logical Runtime Faults per Minute	measurement	Number of logical runtime faults thrown per minute	NumLogicalRuntimeFaults
Runtime Faults	measurement	Number of runtime faults thrown	NumRuntimeFaults
Runtime Faults per Minute	measurement	Number of runtime faults thrown per minute	NumRuntimeFaults
Total Handling Time	measurement	Total processing time	TotalHandlingTime
Total Handling Time per Minute	measurement	Total processing time per minute	TotalHandlingTime

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

## Package Types

none

## 4.9. SERVERSERVICECOUNTER SERVICE (CXF)

### Overview

Description:	CXF Server Service Counter
Singleton:	no
Plugin:	CXF

### Parent Resource Types

- [Section 4.6, “CXF Endpoint Service \(CXF\)”](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps



#### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

### Metrics

Name	Type	Description	Internal Name
Average Response Time	measurement	Average Response Time	AvgResponseTime

Name	Type	Description	Internal Name
Min Response Time	measurement	Minimum Response Time	MinResponseTime
Max Response Time	measurement	Maximum Response Time	MaxResponseTime
Invocation Count	measurement	Number of Operation invocations	NumInvocations
Invocation Count per Minute	measurement	Number of Operation invocations per minute	NumInvocations
Checked Application Faults	measurement	Number of checked application faults thrown	NumCheckedApplicationFaults
Checked Application Faults per Minute	measurement	Number of checked application faults thrown per minute	NumCheckedApplicationFaults
UnChecked Application Faults	measurement	Number of unchecked application faults thrown	NumUnCheckedApplicationFaults
UnChecked Application Faults per Minute	measurement	Number of unchecked application faults thrown per minute	NumUnCheckedApplicationFaults
Logical Runtime Faults	measurement	Number of logical runtime faults thrown	NumLogicalRuntimeFaults
Logical Runtime Faults per Minute	measurement	Number of logical runtime faults thrown per minute	NumLogicalRuntimeFaults
Runtime Faults	measurement	Number of runtime faults thrown	NumRuntimeFaults
Runtime Faults per Minute	measurement	Number of runtime faults thrown per minute	NumRuntimeFaults
Total Handling Time	measurement	Total processing time	TotalHandlingTime
Total Handling Time per Minute	measurement	Total processing time per minute	TotalHandlingTime

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**4.10. SERVEROPERATIONCOUNTER SERVICE (CXF)****Overview**

Description:	CXF Server Operation Counter
Singleton:	no
Plugin:	CXF

**Parent Resource Types**

- [Section 4.6, “CXF Endpoint Service \(CXF\)”](#)

**Child Resource Types**

none

**Connection Properties**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Operation	Operation Name	yes	operation

Name	Description	Required	Internal Name
Avoid Custom Object Names	Avoid Custom JMX Object Names	yes	skipUnknownProps

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

Name	Type	Description	Internal Name
Average Response Time	measurement	Average Response Time	AvgResponseTime
Min Response Time	measurement	Minimum Response Time	MinResponseTime
Max Response Time	measurement	Maximum Response Time	MaxResponseTime
Invocation Count	measurement	Number of Operation invocations	NumInvocations
Invocation Count per Minute	measurement	Number of Operation invocations per minute	NumInvocations
Checked Application Faults	measurement	Number of checked application faults thrown	NumCheckedApplicationFaults
Checked Application Faults per Minute	measurement	Number of checked application faults thrown per minute	NumCheckedApplicationFaults
UnChecked Application Faults	measurement	Number of unchecked application faults thrown	NumUnCheckedApplicationFaults
UnChecked Application Faults per Minute	measurement	Number of unchecked application faults thrown per minute	NumUnCheckedApplicationFaults
Logical Runtime Faults	measurement	Number of logical runtime faults thrown	NumLogicalRuntimeFaults
Logical Runtime Faults per Minute	measurement	Number of logical runtime faults thrown per minute	NumLogicalRuntimeFaults

Name	Type	Description	Internal Name
Runtime Faults	measurement	Number of runtime faults thrown	NumRuntimeFaults
Runtime Faults per Minute	measurement	Number of runtime faults thrown per minute	NumRuntimeFaults
Total Handling Time	measurement	Total processing time	TotalHandlingTime
Total Handling Time per Minute	measurement	Total processing time per minute	TotalHandlingTime

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

**Package Types**

none



# CHAPTER 5. APACHE SERVICEMIX3 MANAGED RESOURCES

## Abstract

Apache ServiceMix3 metrics are collected for JBoss ON managed ServiceMix 3.x platforms. Based on a resource's metrics, you can invoke Control Operations on the resource to avoid or correct throughput and performance problems.

## 5.1. AGENT METRIC COLLECTORS

The main service entries, which collect the required metrics, are:

- ServiceMix3 Server
- ServiceMix3 Container
- ServiceMix3 Component
- ServiceMix3 Endpoint
- ServiceMix3 JBI Admin Commands
- ServiceMix3 Service Assembly
- ServiceMix3 Shared Library



### NOTE

By default, Availability status is collected on all ServiceMix3 services. Only the ServiceMix3 Component and Endpoint services collect additional metrics.

## 5.2. SERVICEMIX3 SERVER (SERVICEMIX3)

### Overview

Description:	ServiceMix3 Server Process
Singleton:	no
Plugin:	ServiceMix3

### Parent Resource Types

- Managed Platforms

### Child Resource Types

- ServiceMix3 Server JVM Server

## Autodiscovery Process Scans

Name	Query
<code>\${processScan.name}</code>	<code>process basename match=^java.* arg -Dservicemix.home match=.*</code>

## Connection Properties

Name	Description	Required	Internal Name
Log Event Sources	The list of log files that can be tracked	yes	logEventSources
Servicemix Home	Servicemix Server Home Directory	yes	servicemix.home
Server Resource Key	Java system property that uniquely identifies this Server	yes	resourceKey
Version File Pattern	File name with Server version	yes	versionFile
Home Directory	System property for home directory	yes	homeProperty
Log File	Log File to track	yes	logFile
Connector Address	JMX Service URL	no	connectorAddress
Principal	JMX login principal/username	no	principal
Credentials	JMX login credentials/password	no	credentials



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

none

## Package Types

none

## 5.3. CONTAINER SERVICE (SERVICEMIX3)

### Overview

Description:	Servicemix Container
Singleton:	no
Plugin:	Servicemix3

### Parent Resource Types

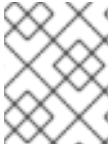
- [Section 5.2, “Servicemix3 Server \(Servicemix3\)”](#)

### Child Resource Types

- [Section 5.4, “Component Service \(Servicemix3\)”](#)
- [Section 5.5, “Endpoint Service \(Servicemix3\)”](#)
- [Section 5.6, “JBI Admin Commands Service \(Servicemix3\)”](#)
- [Section 5.7, “Service Assembly Service \(Servicemix3\)”](#)
- [Section 5.8, “Shared Library Service \(Servicemix3\)”](#)

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Container Name	Container Name	yes	containerName

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

Name	Description
Start	Start a container.
Stop	Stop a container.
Shut Down	Shut down a container.

**Package Types**

none

**5.4. COMPONENT SERVICE (SERVICEMIX3)****Overview**

Description:	Servicemix Component
Singleton:	no
Plugin:	Servicemix3

**Parent Resource Types**

- [Section 5.3, “Container Service \(Servicemix3\)”](#)

**Child Resource Types**

none

**Connection Properties**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Stats Object Name		yes	statsObjectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Component Name	yes	name

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

Name	Type	Description	Internal Name
Inbound Exchange Count	measurement	Count of inbound Exchanges	inboundExchangeCount
Inbound Exchange Count per Minute	measurement	Count of inbound Exchanges per minute	inboundExchangeCount
Inbound Exchange Rate	measurement	Rate of inbound Exchanges per second	inboundExchangeRate
Outbound Exchange Count	measurement	Count of outbound Exchanges	outboundExchangeCount
Outbound Exchange Count per Minute	measurement	Count of outbound Exchanges per minute	outboundExchangeCount
Outbound Exchange Rate	measurement	Rate of outbound Exchanges per second	outboundExchangeRate
Inbound Queue Size	measurement	Size of the inbound Queue	inboundQueueSize

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

## Configuration Properties

none

## Operations

Name	Description
Start	Start a component.
Stop	Stop a component.
Shut Down	Shut down a component.

## Package Types

none

## 5.5. ENDPOINT SERVICE (SERVICEMIX3)

### Overview

Description:	Servicemix Endpoint
Singleton:	no
Plugin:	Servicemix3

### Parent Resource Types

- [Section 5.3, “Container Service \(Servicemix3\)”](#)

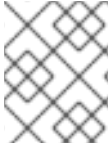
### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate

Name	Description	Required	Internal Name
Name	Endpoint Name	yes	name

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

Name	Type	Description	Internal Name
Inbound Exchange Count	measurement	Count of inbound Exchanges	inboundExchangeCount
Inbound Exchange Count per Minute	measurement	Count of inbound Exchanges per minute	inboundExchangeCount
Inbound Exchange Rate	measurement	Rate of inbound Exchanges per second	inboundExchangeRate
Outbound Exchange Count	measurement	Count of outbound Exchanges	outboundExchangeCount
Outbound Exchange Count per Minute	measurement	Count of outbound Exchanges per minute	outboundExchangeCount
Outbound Exchange Rate	measurement	Rate of outbound Exchanges per second	outboundExchangeRate

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

## 5.6. JBI ADMIN COMMANDS SERVICE (SERVICEMIX3)

### Overview

Description:	Servicemix JBI Admin Commands Service
Singleton:	no
Plugin:	Servicemix3

### Parent Resource Types

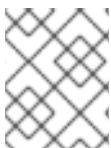
- [Section 5.3, “Container Service \(Servicemix3\)”](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate



#### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

### Metrics

none

### Configuration Properties

none

### Operations

Name	Description
Uninstall Component	Uninstall a component.



Name	Description
List Components	List all installed components.
Start Component	Start a component.
Stop Component	Stop a component.
Shutdown Component	Shut down a component.
Install Shared Library	Install a shared library.
Uninstall Shared Library	Uninstall a shared library.
List Shared Libraries	List all installed shared libraries.
Deploy Service Assembly	Deploy a service assembly.
Undeploy Service Assembly	Undeploy a service assembly.
Start Service Assembly	Start a service assembly.
Stop Service Assembly	Stop a service assembly.
Shutdown Service Assembly	Shut down a service assembly.
List Service Assemblies	List all installed service assemblies.

## Package Types

none

## 5.7. SERVICE ASSEMBLY SERVICE (SERVICEMIX3)

### Overview

Description:	Servicemix Service Assembly
Singleton:	no
Plugin:	Servicemix3

### Parent Resource Types

- [Section 5.3, “Container Service \(Servicemix3\)”](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Service Assembly Name	yes	name



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

Name	Description
Start	Start the service assembly.
Stop	Stop the service assembly.
Shut Down	Shut down the service assembly.

## Package Types

none

## 5.8. SHARED LIBRARY SERVICE (SERVICEMIX3)

### Overview

Description:	ServiceMix Shared Library
Singleton:	no
Plugin:	ServiceMix3

## Parent Resource Types

- [Section 5.3, “Container Service \(ServiceMix3\)”](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Shared Library Name	yes	name



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

none

## Package Types

none

## CHAPTER 6. APACHE SERVICEMIX4 MANAGED RESOURCES

### Abstract

Apache ServiceMix4 metrics are collected for JBoss ON managed ServiceMix 4.x Server platforms. Based on a resource's metrics, you can invoke Control Operations on the resource to avoid or correct throughput and performance problems.

### 6.1. AGENT METRIC COLLECTORS

The main service entries, which collect the required metrics, are:

- ServiceMix4 Server
- Apache Karaf Admin
- Apache Karaf Features
- OSGi Compendium Configuration Management
- OSGi Compendium Permission Management
- OSGi Core Bundle State
- OSGi Core Framework
- OSGi Core Package State
- OSGi Core Service State
- ServiceMix4 Shared Library
- ServiceMix4 Component
- ServiceMix4 Service Assembly
- ServiceMix4 Endpoint
- ServiceMix4 JBI Admin Commands



#### NOTE

By default, Availability status is collected on all ServiceMix4 services. Only the ServiceMix4 OSGi Core Framework and Endpoint services collect additional metrics.

### 6.2. SERVICEMIX4 SERVER (SERVICEMIX4)

#### Overview

Description:	ServiceMix4 Server Process
Singleton:	no

Plugin:	Servicemix4
---------	-------------

## Parent Resource Types

- Managed Platforms

## Child Resource Types

- Servicemix4 Server JVM Server

## Autodiscovery Process Scans

Name	Query
<code>\${processScan.name}</code>	<pre>process basename match=^java.*,arg - Dkaraf.home match=.*,arg  - Dkaraf.base match=.*,arg * match=org\.apache\.karaf \.main shell\.wrapper)\.Main</pre>

## Connection Properties

Name	Description	Required	Internal Name
Log Event Sources	The list of log files that can be tracked	yes	logEventSources
Servicemix Home	Servicemix Server Home Directory	yes	karaf.home
Servicemix Base	Servicemix Server Base Directory	yes	karaf.base
Server Resource Key	Java system property that uniquely identifies this Server	yes	resourceKey
Version File Pattern	File name with Server version	yes	versionFile
Home Directory	System property for home directory	yes	homeProperty
Log File	Log File to track	yes	logFile
Connector Address	JMX Service URL	no	connectorAddress

Name	Description	Required	Internal Name
Principal	JMX login principal/username	no	principal
Credentials	JMX login credentials/password	no	credentials

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**6.3. KARAF ADMIN SERVICE (SERVICEMIX4)****Overview**

Description:	Karaf Admin
Singleton:	no
Plugin:	ServiceMix4

**Parent Resource Types**

- [ServiceMix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

**Child Resource Types**

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Karaf Container Name	yes	name



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

Name	Description
Create Instance	Create a Karaf child instance.
Destroy Instance	Destroy a Karaf child instance.
Change Ssh Port	Change the SSH port of a Karaf child instance.
Start Instance	Start a Karaf child instance.
Stop Instance	Stop a Karaf child instance.

## Package Types

none

## 6.4. KARAF FEATURES SERVICE (SERVICEMIX4)

## Overview

Description:	Karaf Features
Singleton:	no
Plugin:	Servicemix4

## Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Karaf Features Name	yes	name



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations



Name	Description
Add Repository	Add a feature repository.
Uninstall Feature	Uninstall a feature.
Install Feature	Install a feature.
Remove Repository	Remove a feature repository.

## Package Types

none

## 6.5. COMPONENT SERVICE (SERVICEMIX4)

### Overview

Description:	Servicemix Component
Singleton:	no
Plugin:	Servicemix4

### Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate

Name	Description	Required	Internal Name
Name	Component Name	yes	name

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

Name	Description
Start	Start a component.
Stop	Stop a component.
Shut Down	Shutdown a component.

**Package Types**

none

**6.6. ENDPOINT SERVICE (SERVICEMIX4)****Overview**

Description:	Servicemix Endpoint
Singleton:	no
Plugin:	Servicemix4

**Parent Resource Types**

- [Servicemix4 Server](#)
- [Fabric Container Server](#)

- [JBoss Fuse Container Server](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Name	Endpoint Name	yes	Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Id	Endpoint Id	yes	id



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Name	Type	Description	Internal Name
Inbound Exchange Count	measurement	Count of inbound Exchanges	InboundExchangeCount
Inbound Exchange Count per Minute	measurement	Count of inbound Exchanges per minute	InboundExchangeCount
Inbound Exchange Rate	measurement	Rate of inbound Exchanges per second	InboundExchangeRate
Outbound Exchange Count	measurement	Count of outbound Exchanges	OutboundExchangeCount
Outbound Exchange Count per Minute	measurement	Count of outbound Exchanges per minute	OutboundExchangeCount
Outbound Exchange Rate	measurement	Rate of outbound Exchanges per second	OutboundExchangeRate

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**6.7. JBI ADMIN COMMANDS SERVICE (SERVICEMIX4)****Overview**

Description:	Servicemix JBI Admin Commands Service
Singleton:	no
Plugin:	Servicemix4

**Parent Resource Types**

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

**Child Resource Types**

none

**Connection Properties**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

Name	Description
Uninstall Component	Uninstall a component.
List Components	List all installed components.
Start Component	Start a component.
Stop Component	Stop a component.
Shutdown Component	Shut down a component.
Install Shared Library	Install a shared library.
Uninstall Shared Library	Uninstall a shared library.
List Shared Libraries	List all installed shared libraries.
Deploy Service Assembly	Deploy a service assembly.
Undeploy Service Assembly	Undeploy a service assembly.
Start Service Assembly	Start a service assembly.
Stop Service Assembly	Stop a service assembly.
Shutdown Service Assembly	Shut down a service assembly.
List Service Assemblies	List all installed service assemblies.

**Package Types**

none

## 6.8. SERVICE ASSEMBLY SERVICE (SERVICEMIX4)

### Overview

Description:	Servicemix Service Assembly
Singleton:	no
Plugin:	Servicemix4

### Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Service Assembly Name	yes	name



#### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

### Metrics

none

### Configuration Properties

none

### Operations

Name	Description
Start	Start a service assembly.
Stop	Stop a service assembly.
Shut Down	Shut down a service assembly.

## Package Types

none

## 6.9. SHARED LIBRARY SERVICE (SERVICEMIX4)

### Overview

Description:	Servicemix Shared Library
Singleton:	no
Plugin:	Servicemix4

### Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	Shared Library Name	yes	name

Name	Description	Required	Internal Name
Version	Shared Library Version	yes	version

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

## 6.10. OSGI COMPENDIUM CONFIGURATION MANAGEMENT SERVICE (SERVICEMIX4)

**Overview**

Description:	Osgi Compendium Configuration Management
Singleton:	no
Plugin:	Servicemix4

**Parent Resource Types**

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

**Child Resource Types**

none



## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
OSGi Version	OSGi Service Version	yes	osgiVersion



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

Name	Description
Delete	Delete configuration properties.
Delete For Location	Delete configuration properties for location.
Create Factory Configuration	Create a factory configuration.
Create Factory Configuration For Location	Create a factory configuration for location.
Get Factory Pid	Get a factory PID.
Get Factory Pid For Location	Get the factory PID for location.
Get Bundle Location	Get the location of a bundle.
Set Bundle Location	Set the location of a bundle.
Delete Configurations	Delete configurations.

## Package Types

none

## 6.11. OSGI CORE BUNDLE STATE SERVICE (SERVICEMIX4)

### Overview

Description:	Osgi Core Bundle State
Singleton:	no
Plugin:	Servicemix4

### Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
OSGi Version	OSGi Service Version	yes	osgiVersion
Skip unknown object name properties	Skip object names with unknown properties	yes	skipUnknownProps



#### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

### Metrics

none

## Configuration Properties

none

## Operations

Name	Description
Get State	Get the state of a bundle.
Get Last Modified	Get the date a bundle was last modified.
Get Symbolic Name	Get the symbolic name of a bundle.
Is Fragment	Discover whether a bundle is a fragment.
Get Start Level	Get the start level of a bundle.
Is Removal Pending	Discover whether removal of a bundle is pending.
Is Required	Discover whether a bundle is required.
Is Persistently Started	Discover whether a bundle is persistently started.

## Package Types

none

## 6.12. OSGI CORE FRAMEWORK SERVICE (SERVICEMIX4)

### Overview

Description:	Osgi Core Framework
Singleton:	no
Plugin:	Servicemix4

### Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
OSGi Version	OSGi Service Version	yes	osgiVersion
Skip unknown object name properties	Skip object names with unknown properties	yes	skipUnknownProps



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Name	Type	Description	Internal Name
Initial Bundle Start Level	trait	Feature Initial Bundle Start Level	InitialBundleStartL
Framework Start Level	trait	Feature Framework Start Level	FrameworkStartLe



### NOTE

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

## Configuration Properties

none

## Operations

Name	Description
Install Bundle	Install a bundle.

Name	Description
Set Bundle Start Level	Set the start level of a bundle.
Uninstall Bundle	Uninstall a bundle.
Update Bundle	Update a bundle.
Resolve Bundle	Resolve a bundle.
Restart Framework	Restart the OSGi framework.
Shutdown Framework	Shut down the OSGi framework.
Start Bundle	Start a bundle.
Stop Bundle	Stop a bundle.
Update Framework	Update the OSGi framework.

## Package Types

none

## 6.13. OSGI CORE PACKAGE STATE SERVICE (SERVICEMIX4)

### Overview

Description:	Osgi Core Package State
Singleton:	no
Plugin:	Servicemix4

### Parent Resource Types

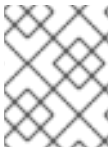
- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
OSGi Version	OSGi Service Version	yes	osgiVersion
Skip unknown object name properties	Skip object names with unknown properties	yes	skipUnknownProps

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

none

**Configuration Properties**

none

**Operations**

Name	Description
Is Removal Pending	Discover whether removal of a package is pending.

**Package Types**

none

**6.14. OSGI CORE SERVICE STATE SERVICE (SERVICEMIX4)****Overview**

Description:	Osgi Core Service State
Singleton:	no
Plugin:	ServiceMix4

## Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
OSGi Version	OSGi Service Version	yes	osgiVersion
Skip unknown object name properties	Skip object names with unknown properties	yes	skipUnknownProps



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

none

## Configuration Properties

none

## Operations

Name	Description
Get Bundle Identifier	Get the identifier of a bundle.

## Package Types

none

## 6.15. OSGI COMPENDIUM PERMISSION MANAGEMENT SERVICE (SERVICEMIX4)

### Overview

Description:	Osgi Compendium Permission Management
Singleton:	no
Plugin:	Servicemix4

### Parent Resource Types

- [Servicemix4 Server](#)
- [Fabric Container Server](#)
- [JBoss Fuse Container Server](#)

### Child Resource Types

none

### Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
OSGi Version	OSGi Service Version	yes	osgiVersion



#### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

### Metrics

none

### Configuration Properties

none



**Operations**

none

**Package Types**

none

## CHAPTER 7. JBOSS FUSE MANAGED RESOURCES

### Abstract

JBoss Fuse metrics are collected for Red Hat JBoss Fuse containers and Fabric service.

### 7.1. AGENT METRIC COLLECTORS

#### Abstract

The main service entries, which collect the required metrics, are:

- JBoss Fuse Container Server
- JBoss Fuse Fabric Service

#### 7.1.1. JBoss Fuse Container Server (JBossFuse)

##### Overview

Description:	JBoss Fuse Container Process
Singleton:	no
Plugin:	JBossFuse

##### Parent Resource Types

- Managed Platforms

##### Child Resource Types

- JBoss Fuse Container JVM\_Server

##### Autodiscovery Process Scans

Name	Query
<code>\${processScan.name}</code>	<pre>process basename match=^java.*,arg - Dkaraf.home match=.*,arg  - Dkaraf.base match=.*,arg * match=org\.apache\.karaf \.main shell\.wrapper)\.Main</pre>

##### Connection Properties

Name	Description	Required	Internal Name
Start Script Path	<p>The path to the script that the Start and Restart operations should use to start the server.</p> <p>If not absolute, the path is resolved relative to the server home directory (e.g. <b>bin/fuse</b> or <b>bin/karaf</b>).</p>	no	startScript
Start Script Prefix	<p>A prefix command line that should be prepended to the start script command line by the Start and Restart operations. The prefix must be an absolute path (for example, <b>/usr/bin/sudo</b>).</p> <p>This property is most commonly used to run the Server process as a different user than the RHQ Agent for example, <b>sudo -u fuse -g fuse</b> could be used to run the Server as user <b>fuse</b> and group <b>fuse</b>.</p> <p>You can also chain prefix commands (e.g. <b>nohup sudo -u fuse</b> could be used to make the Server ignore HUP signals and to run as user <b>fuse</b>).</p>	no	startScriptPrefix

Name	Description	Required	Internal Name
Start Script Environment Variables	<p>The variables that the Start and Restart operations will add to the environment of the server start script.</p> <p>Put each name=value pair on a new line. Do not enclose variable values in quotes (e.g. <b>JAVA_OPTS=-Xms512M -Xmx1024M</b>).</p> <p>On UNIX systems, the typical minimum set of environment variables is: <b>PATH=/usr/bin:/bin</b>. On Windows, the typical minimum set is: <b>PATH=C:\Windows\System32;C:\Windows</b>, and on OS=Windows_NT, the typical minimum set is: <b>SYSTEMROOT=C:\Windows</b>.</p> <p>It is also good practice to set JAVA_HOME to the absolute path of the install directory of the JRE or JDK you want to use to run the Server instance. If JAVA_HOME is unspecified, the start script attempts to find java in the PATH.</p> <p>This property is limited to 2000 characters.</p>	no	startScriptEnv
Start Script Arguments	<p>The arguments that the Start and Restart operations will pass to the server start script.</p> <p>Put each argument on a new line. An exception, you can put the value of a space-delimited option on the same line as the option.</p> <p>This property is limited to 2000 characters.</p>	no	startScriptArgs

Name	Description	Required	Internal Name
Log Event Sources	The list of log files that can be tracked	yes	logEventSources
JBoss Fuse Container Home	JBoss Fuse Container Home Directory	yes	karaf.home
JBoss Fuse Container Base	JBoss Fuse Container Base Directory	yes	karaf.base
Server Resource Key	Java system property that uniquely identifies this Server	yes	resourceKey
Version File Pattern	File name with Server version	yes	versionFile
Home Directory	System property for home directory	yes	homeProperty
Log File	Log File to track	yes	logFile
Connector Address	JMX Service URL	no	connectorAddress
Principal	JMX login principal/username	no	principal
Credentials	JMX login credentials/password	no	credentials
Fabric Registry URL	URL to use to connect to the Fabric Registry, required for Fabric managed Containers	no	zookeeper.url
Fabric Registry Password	Password to use to connect to the Fabric Registry	no	zookeeper.password
Registry Timeout	Registry connection timeout in Seconds, used for Fabric metadata collection	yes	zookeeper.timeout
JBoss Fuse Container Type	JBoss Fuse Container Type based on underlying product install	yes	container.type

Name	Description	Required	Internal Name
JBoss Fuse Container Name	JBoss Fuse Container name, same as Karaf name	yes	karaf.name
Fabric Container Git Repository	Fabric Container Git repository location	yes	git.root

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

Name	Type	Description	Internal Name
JBoss Fuse Container Version	trait	JBoss Fuse Profile Version used by this Container	container.version
JBoss Fuse Profiles	trait	JBoss Fuse Profiles referenced directly by this Container	profiles
JBoss Fuse Parent Profiles	trait	JBoss Fuse parent Profiles indirectly referenced by this Container	parentProfiles
MQ Clusters	trait	JBoss Fuse MQ Clusters where this Container exports ActiveMQ Connection Details	mqClusters

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

Name	Description
Start	Start the server by invoking its start script
Restart	Restart the server by shutting it down and then invoking its start script
Stop	Stop the server.

## Package Types

none

### 7.1.2. Fabric Service (JBossFuse)

Description:	Fabric Service
Singleton:	no
Plugin:	JBossFuse

## Parent Resource Types

- JBoss Fuse Container Platform

## Child Resource Types

none

## Connection Properties

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Skip unknown object name properties	Skip object names with unknown properties	yes	skipUnknownProps



### NOTE

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Name	Type	Description	Internal Name
Default Version	trait	Default Container Version	DefaultVersion
Maven Repo URI	trait	Fabric Maven Repo URI	MavenRepoURI
Maven Repo Upload URI	trait	Fabric Maven Repo upload URI	MavenRepoUploadURI
Zookeeper Url	trait	Fabric ZooKeeper URL	ZookeeperUrl
Current Container Name	trait	Current container name from Fabric agent	CurrentContainerName
Default Jvm Options	trait	Container default JVM options	DefaultJvmOptions
Default Repo	trait	Default Maven repo	DefaultRepo



### NOTE

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

## Configuration Properties

none

## Operations

Name	Description
Scale Profile	Scale a profile up or down

## Package Types

none



## CHAPTER 8. FABRIC MANAGED RESOURCES

### Abstract

Fabric metrics are collected for fabrics deployed in Red Hat JBoss Fuse.

## 8.1. AGENT METRIC COLLECTORS

### Abstract

The main service entry, which collects the required metrics, is Fabric Container.

### 8.1.1. Fabric Container Server (Fabric)

#### Overview

Description:	Fabric Container Process
Singleton:	no
Plugin:	Fabric

#### Parent Resource Types

- Managed Platforms

#### Child Resource Types

- Fabric Container JVM Server

#### Autodiscovery Process Scans

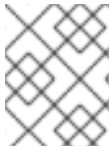
Name	Query
<code>\${processScan.name}</code>	<pre>process basename match=^java.* arg - Dkaraf.home match=.* arg  - Dkaraf.base match=.* arg * match=org\.apache\.karaf \.main shell\.wrapper)\.Main</pre>

#### Connection Properties

Name	Description	Required	Internal Name
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Name	Description	Required	Internal Name
Log Event Sources	The list of log files that can be tracked	yes	logEventSources
Fabric Container Home	Fabric Container Home Directory	yes	karaf.home
Fabric Container Base	Fabric Container Base Directory	yes	karaf.base
Server Resource Key	Java system property that uniquely identifies this Server	yes	resourceKey
Version File Pattern	File name with Server version	yes	versionFile
Home Directory	System property for home directory	yes	homeProperty
Log File	Log File to track	yes	logFile
Connector Address	JMX Service URL	no	connectorAddress
Principal	JMX login principal/username	no	principal
Credentials	JMX login credentials/password	no	credentials
Fabric Registry URL	URL to use to connect to the Fabric Registry, required for Fabric managed Containers	no	zookeeper.url
Fabric Registry Password	Password to use to connect to the Fabric Registry	no	zookeeper.password
Registry Timeout	Registry connection timeout in Seconds, used for Fabric metadata collection	yes	zookeeper.timeout
Fuse Container Type	Fuse Container Type based on underlying product install	yes	container.type

Name	Description	Required	Internal Name
Fabric Container Name	Fabric Container name, same as Karaf name	yes	karaf.name

**NOTE**

You must use the internal name to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

Name	Type	Description	Internal Name
Fabric Container Version	trait	Fabric Profile Version used by this Container	container.version
Fabric Profiles	trait	Fabric Profiles referenced directly by this Container	profiles
Fabric Parent Profiles	trait	Fabric parent Profiles indirectly referenced by this Container	parentProfiles
MQ Clusters	trait	Fabric MQ Clusters where this Container exports ActiveMQ Connection Details	mqClusters

**NOTE**

You must use the internal name to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

