



# **JBoss Operations Network 3.0 Resource Monitoring and Operations Reference**

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a complete reference for monitoring metrics, operations, and configuration options  
Edition 3.0.1

Ella Deon Lackey



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Edition 3.0.1

Ella Deon Lackey  
dlackey@redhat.com

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## Abstract

This is a reference for all monitoring checks available for the default resources handled in JBoss Operations Network 3.0, as well as available resource operations.

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## Preface

### 1. Document History

<b>Revision 3.0.1-1</b>	<b>2013-10-31</b>	<b>Rüdiger Landmann</b>
Rebuild with publican 4.0.0		
<b>Revision 3.0.1-0</b>	<b>March 18, 2012</b>	<b>Ella Deon Lackey</b>
Updates for JBoss Operations Network 3.0.1.		
<b>Revision 3.0-0</b>	<b>September 28, 2011</b>	<b>Ella Deon Lackey</b>
For the beta release of JBoss Operations Network 3.0.		

# Chapter 1. Managed Platforms

JBoss Operations Network 3.0 supports many major types of platforms and operating systems, including Java, most versions of Linux, Unix, and Windows. Platform support is implemented through a single agent resource plug-in that defines the individual configuration, metrics, and operations for all supported platform types.

## 1.1. AIX Platform

### Overview

**Table 1.1. Overview**

Description:	IBM AIX Operating System
Singleton:	no
Plugin:	Platforms

### Parent Resource Types

none

### Child Resource Types

- ✦ [Chapter 2, Base JBoss Resources](#)
- ✦ [Chapter 3, Base Server Resources](#)
- ✦ [Section 1.9, “Services Managed on Platforms”](#)

### Connection Properties

none

### Metrics

**Table 1.2. Metrics**

Name	Type	Description	Internal Name
Free Memory	measurement	The total free system memory	Native.MemoryInfo.free
Used Memory	measurement	The total used system memory	Native.MemoryInfo.used
Total Memory	measurement	The total system memory	Native.MemoryInfo.total
Free Swap Space	measurement	The total free system swap	Native.SwapInfo.free
Used Swap Space	measurement	The total used system swap	Native.SwapInfo.used
Total Swap Space	measurement	The total system swap	Native.SwapInfo.total
Idle	measurement	Idle percentage of all CPUs	CpuPerc.idle

Name	Type	Description	Internal Name
System Load	measurement	Percentage of all CPUs running in system mode	CpuPerc.sys
User Load	measurement	Percentage of all CPUs running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of all CPUs waiting on I/O	CpuPerc.wait
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch



### Note

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

## Configuration Properties

none

## Operations

**Table 1.3. Metrics**

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system

## Package Types

none

## 1.2. FreeBSD Platform

### Overview

**Table 1.4. Overview**

Description:	FreeBSD Operating System
Singleton:	no
Plugin:	Platforms

## Parent Resource Types



none

## Child Resource Types

- [Chapter 2, Base JBoss Resources](#)
- [Chapter 3, Base Server Resources](#)
- [Section 1.9, “Services Managed on Platforms”](#)

## Connection Properties

none

## Metrics

**Table 1.5. Metrics**

Name	Type	Description	Internal Name
Free Memory	measurement	The total free system memory	Native.MemoryInfo.free
Used Memory	measurement	The total used system memory	Native.MemoryInfo.used
Total Memory	measurement	The total system memory	Native.MemoryInfo.total
Free Swap Space	measurement	The total free system swap	Native.SwapInfo.free
Used Swap Space	measurement	The total used system swap	Native.SwapInfo.used
Total Swap Space	measurement	The total system swap	Native.SwapInfo.total
Idle	measurement	Idle percentage of all CPUs	CpuPerc.idle
System Load	measurement	Percentage of all CPUs running in system mode	CpuPerc.sys
User Load	measurement	Percentage of all CPUs running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of all CPUs waiting on I/O	CpuPerc.wait
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch



### Note

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

## Configuration Properties

none

## Operations

**Table 1.6. Metrics**

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system

## Package Types

none

## 1.3. HP-UX Platform

### Overview

**Table 1.7. Overview**

Description:	Hewlett-Packard HP-UX Operating System
Singleton:	no
Plugin:	Platforms

### Parent Resource Types

none

### Child Resource Types

- » [Chapter 2, Base JBoss Resources](#)
- » [Chapter 3, Base Server Resources](#)
- » [Section 1.9, “Services Managed on Platforms”](#)

### Connection Properties

none

### Metrics

**Table 1.8. Metrics**

Name	Type	Description	Internal Name
Free Memory	measurement	The total free system memory	Native.MemoryInfo.free

Name	Type	Description	Internal Name
Used Memory	measurement	The total used system memory	Native.MemoryInfo.used
Total Memory	measurement	The total system memory	Native.MemoryInfo.total
Free Swap Space	measurement	The total free system swap	Native.SwapInfo.free
Used Swap Space	measurement	The total used system swap	Native.SwapInfo.used
Total Swap Space	measurement	The total system swap	Native.SwapInfo.total
Idle	measurement	Idle percentage of all CPUs	CpuPerc.idle
System Load	measurement	Percentage of all CPUs running in system mode	CpuPerc.sys
User Load	measurement	Percentage of all CPUs running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of all CPUs waiting on I/O	CpuPerc.wait
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch



### Note

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

## Configuration Properties

none

## Operations

**Table 1.9. Metrics**

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system

## Package Types

none

## 1.4. Java Platform

## Overview

**Table 1.10. Overview**

Description:	Platform with 100% Java capability but not natively supported
Singleton:	no
Plugin:	Platforms

## Parent Resource Types

none

## Child Resource Types

- [Chapter 2, Base JBoss Resources](#)
- [Chapter 3, Base Server Resources](#)
- [Section 1.9, “Services Managed on Platforms”](#)

## Connection Properties

none

## Metrics

**Table 1.11. Metrics**

Name	Type	Description	Internal Name
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch



### Note

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

## Configuration Properties

none

## Operations

**Table 1.12. Metrics**

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system

## Package Types

none

## 1.5. Linux Platform

### Overview

**Table 1.13. Overview**

Description:	Linux Operating System
Singleton:	no
Plugin:	Platforms

### Parent Resource Types

none

### Child Resource Types

- » [Chapter 2, Base JBoss Resources](#)
- » [Chapter 3, Base Server Resources](#)
- » [Section 1.9, "Services Managed on Platforms"](#)

### Connection Properties

**Table 1.14.**

Name	Description	Required	Internal Name
Enable Content Discovery	If true, attempts will be made to discover installed packages on this platform	yes	enableContentDiscovery
Enable Internal Yum Server	If true, an internal yum server will be started in order to process yum content requests made on the local machine.	yes	enableInternalYumServer
Yum server port	The port the plugin will listen on in order to process yum requests. This is ignored if the internal yum server is not enabled.	yes	yumPort

Name	Description	Required	Internal Name
Metadata Cache Timeout	The time, in seconds, that the package metadata will always be considered valid. After the cache has lived this long or longer, the cache will be checked to see if it is stale, and if so, will be refreshed.	no	metadataCacheTimeout
Logs		yes	logs



### Note

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

## Metrics

Table 1.15. Metrics

Name	Type	Description	Internal Name
Free Memory	measurement	The total free system memory	Native.MemoryInfo.free
Used Memory	measurement	The total used system memory	Native.MemoryInfo.used
Total Memory	measurement	The total system memory	Native.MemoryInfo.total
Free Swap Space	measurement	The total free system swap	Native.SwapInfo.free
Used Swap Space	measurement	The total used system swap	Native.SwapInfo.used
Total Swap Space	measurement	The total system swap	Native.SwapInfo.total
Idle	measurement	Idle percentage of all CPUs	CpuPerc.idle
System Load	measurement	Percentage of all CPUs running in system mode	CpuPerc.sys
User Load	measurement	Percentage of all CPUs running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of all CPUs waiting on I/O	CpuPerc.wait
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch

Name	Type	Description	Internal Name
Distribution Name	trait	name of the Linux distribution	distro.name
Distribution Version	trait	version of the Linux distribution	distro.version



### Note

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

## Configuration Properties

none

## Operations

Table 1.16. Metrics

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system
Clean Yum Metadata Cache	Deletes all cached package metadata

## Package Types

Table 1.17. Package Types

Name	Category	Description
RPM File	Deployable	Red Hat installable package

## 1.6. Mac OS X Platform

### Overview

Table 1.18. Overview

Description:	Mac OS X Operating System
Singleton:	no
Plugin:	Platforms

### Parent Resource Types

none

### Child Resource Types

✦ [Chapter 2, Base JBoss Resources](#)

- » [Chapter 3, Base Server Resources](#)
- » [Section 1.9, “Services Managed on Platforms”](#)

## Connection Properties

**Table 1.19.**

Name	Description	Required	Internal Name
Logs		yes	logs



### Note

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

## Metrics

**Table 1.20. Metrics**

Name	Type	Description	Internal Name
Free Memory	measurement	The total free system memory	Native.MemoryInfo.free
Used Memory	measurement	The total used system memory	Native.MemoryInfo.used
Total Memory	measurement	The total system memory	Native.MemoryInfo.total
Free Swap Space	measurement	The total free system swap	Native.SwapInfo.free
Used Swap Space	measurement	The total used system swap	Native.SwapInfo.used
Total Swap Space	measurement	The total system swap	Native.SwapInfo.total
Idle	measurement	Idle percentage of all CPUs	CpuPerc.idle
System Load	measurement	Percentage of all CPUs running in system mode	CpuPerc.sys
User Load	measurement	Percentage of all CPUs running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of all CPUs waiting on I/O	CpuPerc.wait
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch



**Note**

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

**Configuration Properties**

none

**Operations****Table 1.21. Metrics**

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system

**Package Types**

none

**1.7. Solaris Platform****Overview****Table 1.22. Overview**

Description:	SUN Solaris Operating System
Singleton:	no
Plugin:	Platforms

**Parent Resource Types**

none

**Child Resource Types**

- ✦ [Chapter 2, Base JBoss Resources](#)
- ✦ [Chapter 3, Base Server Resources](#)
- ✦ [Section 1.9, "Services Managed on Platforms"](#)

**Connection Properties****Table 1.23.**

Name	Description	Required	Internal Name
Logs		yes	logs

**Note**

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

**Metrics****Table 1.24. Metrics**

Name	Type	Description	Internal Name
Free Memory	measurement	The total free system memory	Native.MemoryInfo.free
Used Memory	measurement	The total used system memory	Native.MemoryInfo.used
Total Memory	measurement	The total system memory	Native.MemoryInfo.total
Free Swap Space	measurement	The total free system swap	Native.SwapInfo.free
Used Swap Space	measurement	The total used system swap	Native.SwapInfo.used
Total Swap Space	measurement	The total system swap	Native.SwapInfo.total
Idle	measurement	Idle percentage of all CPUs	CpuPerc.idle
System Load	measurement	Percentage of all CPUs running in system mode	CpuPerc.sys
User Load	measurement	Percentage of all CPUs running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of all CPUs waiting on I/O	CpuPerc.wait
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch

**Note**

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

**Configuration Properties**

none

**Operations**

Table 1.25. Metrics

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system

## Package Types

none

## 1.8. Windows Platform

### Overview

Table 1.26. Overview

Description:	Microsoft Windows Operating System
Singleton:	no
Plugin:	Platforms

### Parent Resource Types

none

### Child Resource Types

- » [Chapter 2, Base JBoss Resources](#)
- » [Chapter 3, Base Server Resources](#)
- » [Section 1.9, "Services Managed on Platforms"](#)

### Connection Properties

Table 1.27.

Name	Description	Required	Internal Name
Enable Content Discovery	If true, attempts will be made to discover installed packages on this platform	yes	enableContentDiscovery
Event Tracking Enabled	Enables the collection of Windows events into the event subsystem	yes	eventTrackingEnabled
Regular Expression	A regular expression that if not-null must be matched by the event detail for the message to be accepted	no	regularExpression

Name	Description	Required	Internal Name
Minimum Severity	The minimum severity event that will be collected	yes	minimumSeverity



### Note

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

## Metrics

**Table 1.28. Metrics**

Name	Type	Description	Internal Name
Free Memory	measurement	The total free system memory	Native.MemoryInfo.free
Used Memory	measurement	The total used system memory	Native.MemoryInfo.used
Total Memory	measurement	The total system memory	Native.MemoryInfo.total
Free Swap Space	measurement	The total free system swap	Native.SwapInfo.free
Used Swap Space	measurement	The total used system swap	Native.SwapInfo.used
Total Swap Space	measurement	The total system swap	Native.SwapInfo.total
Idle	measurement	Idle percentage of all CPUs	CpuPerc.idle
System Load	measurement	Percentage of all CPUs running in system mode	CpuPerc.sys
User Load	measurement	Percentage of all CPUs running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of all CPUs waiting on I/O	CpuPerc.wait
Hostname	trait	Name that this platform is known as	Trait.hostname
OS Name	trait	Name that the operating system is known as	Trait.osname
OS Version	trait	Version of the operating system	Trait.osversion
Architecture	trait	Hardware architecture of the platform	Trait.sysarch



### Note

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

## Configuration Properties

none

## Operations

**Table 1.29. Metrics**

Name	Description
Manual Autodiscovery	Run an immediate discovery to search for resources
View Process List	View running processes on this system

## Package Types

**Table 1.30. Package Types**

Name	Category	Description
Installed Software	Deployable	Installed Windows Software

## 1.9. Services Managed on Platforms

### 1.9.1. CPU Service

#### Overview

**Table 1.31. Overview**

Description:	
Singleton:	no
Plugin:	Platforms

#### Parent Resource Types

- » [Section 1.8, "Windows Platform"](#)
- » [Section 1.5, "Linux Platform"](#)
- » [Section 1.7, "Solaris Platform"](#)
- » [Section 1.3, "HP-UX Platform"](#)
- » [Section 1.1, "AIX Platform"](#)
- » [Section 1.2, "FreeBSD Platform"](#)
- » [Section 1.6, "Mac OS X Platform"](#)

#### Child Resource Types

none

#### Connection Properties

none

**Metrics****Table 1.32. Metrics**

Name	Type	Description	Internal Name
Idle	measurement	Idle percentage of this CPU	CpuPerc.idle
System Load	measurement	Percentage of this CPU running in system mode	CpuPerc.sys
User Load	measurement	Percentage of this CPU running in user mode	CpuPerc.user
Wait Load	measurement	Percentage of this CPU waiting on I/O	CpuPerc.wait
User Time	measurement	The total system CPU user time	Cpu.user
User Time per Minute	measurement	The total system CPU user time	Cpu.user
Nice Time	measurement	The total system CPU nice time	Cpu.nice
Nice Time per Minute	measurement	The total system CPU nice time	Cpu.nice
System Time	measurement	The total system CPU kernel time	Cpu.sys
System Time per Minute	measurement	The total system CPU kernel time	Cpu.sys
Idle Time	measurement	The total system CPU idle time	Cpu.idle
Idle Time per Minute	measurement	The total system CPU idle time	Cpu.idle
Wait Time	measurement	The total system CPU I/O wait time	Cpu.wait
Wait Time per Minute	measurement	The total system CPU I/O wait time	Cpu.wait
Vendor	trait	Vendor of this CPU	CpuTrait.vendor
CPU Model	trait	Model of this CPU	CpuTrait.model
CPU Speed	trait	Speed of this CPU in Mhz	CpuTrait.mhz
Cache size	trait	Cache Size of this CPU	CpuTrait.cacheSize

**Note**

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

**Configuration Properties**

none

**Operations**

none

## Package Types

none

## 1.9.2. File System Service

### Overview

**Table 1.33. Overview**

Description:	
Singleton:	no
Plugin:	Platforms

### Parent Resource Types

- ✦ [Section 1.8, “Windows Platform”](#)
- ✦ [Section 1.5, “Linux Platform”](#)
- ✦ [Section 1.7, “Solaris Platform”](#)
- ✦ [Section 1.3, “HP-UX Platform”](#)
- ✦ [Section 1.1, “AIX Platform”](#)
- ✦ [Section 1.2, “FreeBSD Platform”](#)
- ✦ [Section 1.6, “Mac OS X Platform”](#)

### Child Resource Types

none

### Connection Properties

none

### Metrics

**Table 1.34. Metrics**

Name	Type	Description	Internal Name
Free Space	measurement	The total free bytes on filesystem	fileSystemUsage.free
Used Percentage	measurement	The percentage of disk used	fileSystemUsage.usePercent
Capacity	trait	The total size of the filesystem	fileSystemUsage.total
Volume Type	trait	The filesystem's generic type name	fileSystem.typeName

Name	Type	Description	Internal Name
Drive Type	trait	The filesystem's operating system-specific type name	fileSystem.sysTypeName
name	trait	The name of this device	fileSystem.devName
Free Files	measurement	The number of free file nodes on the filesystem	fileSystemUsage.freeFiles
Flags	trait	The filesystem's flags	fileSystem.flags
Used	measurement	The total bytes used on the filesystem	fileSystemUsage.used
Disk Reads	measurement	The number of physical disk reads	fileSystemUsage.diskReads
Disk Reads per Minute	measurement	The number of physical disk reads	fileSystemUsage.diskReads
Disk Writes	measurement	The number of physical disk writes	fileSystemUsage.diskWrites
Disk Writes per Minute	measurement	The number of physical disk writes	fileSystemUsage.diskWrites
Disk Read Bytes	measurement	The number of physical disk bytes read	fileSystemUsage.diskReadBytes
Disk Read Bytes per Minute	measurement	The number of physical disk bytes read	fileSystemUsage.diskReadBytes
Disk Write Bytes	measurement	The number of physical disk bytes written	fileSystemUsage.diskWriteBytes
Disk Write Bytes per Minute	measurement	The number of physical disk bytes written	fileSystemUsage.diskWriteBytes
Disk Queue	measurement	The number of I/Os currently in progress	fileSystemUsage.diskQueue



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 1.9.3. Network Adapter Service

### Overview

Table 1.35. Overview



Description:	
Singleton:	no
Plugin:	Platforms

## Parent Resource Types

- ✦ [Section 1.8, “Windows Platform”](#)
- ✦ [Section 1.5, “Linux Platform”](#)
- ✦ [Section 1.7, “Solaris Platform”](#)
- ✦ [Section 1.3, “HP-UX Platform”](#)
- ✦ [Section 1.1, “AIX Platform”](#)
- ✦ [Section 1.2, “FreeBSD Platform”](#)
- ✦ [Section 1.6, “Mac OS X Platform”](#)

## Child Resource Types

none

## Connection Properties

none

## Metrics

**Table 1.36. Metrics**

Name	Type	Description	Internal Name
Inet4Address	trait	IP address of the network adapter	Trait.net4.address
Interface Flags	trait	Flag constants for network related operations	Trait.interfaceFlags
Bytes Received	measurement	The total number of bytes received across this network interface since it started	rxBytes
Bytes Received per Minute	measurement	The total number of bytes received across this network interface since it started	rxBytes
Packets Received	measurement	The total number of packets received across this network interface since it started	rxPackets
Packets Received per Minute	measurement	The total number of packets received across this network interface since it started	rxPackets

Name	Type	Description	Internal Name
Bytes Transmitted	measurement	The total number of bytes transmitted across this network interface since it started	txBytes
Bytes Transmitted per Minute	measurement	The total number of bytes transmitted across this network interface since it started	txBytes
Packets Transmitted	measurement	The total number of packets transmitted across this network interface since it started	txPackets
Packets Transmitted per Minute	measurement	The total number of packets transmitted across this network interface since it started	txPackets
Receive Errors	measurement	'errors' statistic for received packets across this network interface since it started	rxErrors
Receive Errors per Minute	measurement	'errors' statistic for received packets across this network interface since it started	rxErrors
Receive Packets Dropped	measurement	'dropped' statistic for received packets across this network interface since it started	rxDropped
Receive Packets Dropped per Minute	measurement	'dropped' statistic for received packets across this network interface since it started	rxDropped
Receive Overruns	measurement	'overruns' statistic for received packets across this network interface since it started	rxOverruns
Receive Overruns per Minute	measurement	'overruns' statistic for received packets across this network interface since it started	rxOverruns
Receive Frame	measurement	'frame' statistic for received packets across this network interface since it started	rxFrame
Receive Frame per Minute	measurement	'frame' statistic for received packets across this network interface since it started	rxFrame
Transmit Errors	measurement	'errors' statistic for transmitted packets across this network interface since it started	txErrors

Name	Type	Description	Internal Name
Transmit Errors per Minute	measurement	'errors' statistic for transmitted packets across this network interface since it started	txErrors
Transmit Packets Dropped	measurement	'dropped' statistic for transmitted packets across this network interface since it started	txDropped
Transmit Packets Dropped per Minute	measurement	'dropped' statistic for transmitted packets across this network interface since it started	txDropped
Transmit Overruns	measurement	'overruns' statistic for transmitted packets across this network interface since it started	txOverruns
Transmit Overruns per Minute	measurement	'overruns' statistic for transmitted packets across this network interface since it started	txOverruns
Transmit Collisions	measurement	'collisions' statistic for transmitted packets across this network interface since it started	txCollisions
Transmit Collisions per Minute	measurement	'collisions' statistic for transmitted packets across this network interface since it started	txCollisions
Transmit Carrier	measurement	'carrier' statistic for transmitted packets across this network interface since it started	txCarrier
Transmit Carrier per Minute	measurement	'carrier' statistic for transmitted packets across this network interface since it started	txCarrier



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 1.9.4. Process Service

### Overview

**Table 1.37. Overview**

Description:	A generic process monitoring service to track native process information based on a pid file or process query
Singleton:	no
Plugin:	Platforms

### Parent Resource Types

- [Section 1.8, "Windows Platform"](#)
- [Section 1.5, "Linux Platform"](#)
- [Section 1.7, "Solaris Platform"](#)
- [Section 1.3, "HP-UX Platform"](#)
- [Section 1.1, "AIX Platform"](#)
- [Section 1.2, "FreeBSD Platform"](#)
- [Section 1.6, "Mac OS X Platform"](#)

### Child Resource Types

none

### Connection Properties

**Table 1.38.**

Name	Description	Required	Internal Name
Type	Choice of using a pid file or a PIQL query to find the process to monitor	yes	type
Pid File	Fully qualified path to the pid file for the process to monitor	no	pidFile
Piql	Process Information Query Language for process to monitor	no	piql
Full Process Tree	If true, the entire process tree will be monitored	yes	fullProcessTree

**Note**

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

**Metrics****Table 1.39. Metrics**

Name	Type	Description	Internal Name
User Time	measurement	The aggregate amount of CPU user time spent by all processes	Process.cpu.user
User Time per Minute	measurement	The aggregate amount of CPU user time spent by all processes	Process.cpu.user
Kernel Time	measurement	The aggregate amount of CPU kernel time spent by all processes	Process.cpu.sys
Kernel Time per Minute	measurement	The aggregate amount of CPU kernel time spent by all processes	Process.cpu.sys
CPU Percentage	measurement	The percentage of CPU currently being used by all processes	Process.cpu.percent
Physical Memory	measurement	The aggregate amount of resident memory used by all processes	Process.memory.resident
Virtual Memory	measurement	The aggregate amount of virtual memory used by all processes	Process.memory.size
Open File Descriptors	measurement	The aggregate number of file descriptors open by all processes	Process.fileDescriptor.total

**Note**

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

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

## Chapter 2. Base JBoss Resources

There are certain server types that are supported by default in JBoss Operations Network, both for JBoss and non-JBoss resource types.

The JBoss resources here are included with JBoss ON by default through the EAP plug-in pack. Additional JBoss resources can be managed by JBoss ON by installing additional *plug-in packs*.

### 2.1. JBossAS 4.x and EAP 4.x Server

#### Overview

Table 2.1. Overview

Description:	JBoss Application Server
Singleton:	no
Plugin:	JBossAS

#### Binding to IP addresses

When starting JBossAS instances that need to be monitored using remote JMX (i.e. JNP), it is necessary for the `java.rmi.server.hostname` System property to be set to the same value as the server's JNP address (which is set to the `jboss.bind.address` System property by default). Due to bugs in JBossAS (for more information please see [JBAS-4736](#) and [JBAS-4955](#)), `java.rmi.server.hostname` will default to `127.0.0.1`, unless JBossAS is started using `-b`, in which case `java.rmi.server.hostname` will default to the bind address specified as the argument to `-b`.

Therefore, you must start your JBossAS instances by using either `-b`:

```
run -b 12.34.56.78 ...
```

or by explicitly specifying a value for `java.rmi.server.hostname` via `-D` or `-P`, e.g.:

```
run -Djboss.bind.address=12.34.56.78 -
Djava.rmi.server.hostname=12.34.56.78 ...
```

Otherwise, you will not be able to manage the instance via JON.



#### Important

Using `-b` is the recommended way to specify the bind address, since, in addition to setting `jboss.bind.address` and `java.rmi.server.hostname`, it will also set other JGroups-related System properties to the specified address.

#### Monitoring of EJB 2.x EJBs

The issue here is that JBossAS changed the way it creates the MBean names of the deployed EJBs from the JNDI names / EJB names (this happened around version 4.0.3.sp1). Basically the `<jndi-name>`, or `<local-jndi-name>` if `<jndi-name>` is not present, from `jboss.xml` is used.

So the workaround is to set the `<jndi-name>` to the `ejb-name` in your application. As this probably breaks

client code, you will want to setup a naming reference that restores the original hierarchy. For example, if you have in jboss.xml:

```
<session>
  <ejb-name>Ability</ejb-name>
  <local-jndi-name>flower.AbilityLocal</local-jndi-name>
```

You might change this to:

```
<session>
  <ejb-name>Ability</ejb-name>
  <local-jndi-name>Ability</local-jndi-name>
```

And then add an MBean flowsys-naming-alias-service.xml:

```
<mbean code="org.jboss.naming.NamingAlias"
  name=":service=naming-alias">
  <attribute name="ToName">flower.AbilityLocal</attribute>
  <attribute name="FromName">Ability</attribute>
</mbean>
```

After you have done this, go into the inventory of the respective beans, edit the configuration and then click OK.

The naming alias ensures that clients of the Ability EJB can still find the bean in JNDI at the original location. Naming aliases appear in JNDIView (within JMX-Console) as LinkRef.

## Parent Resource Types

- ✦ [Chapter 1, Managed Platforms](#)

## Child Resource Types

- ✦ [Section 2.1.1, "ConnectionFactory Service"](#)
- ✦ [Section 2.1.2, "Datasource Service"](#)
- ✦ [Section 2.1.3, "EJB3 Entity Tree Cache Service"](#)
- ✦ [Section 2.1.4, "EJB3 Session Bean Service"](#)
- ✦ [Section 2.1.5, "Embedded Tomcat Server"](#)
- ✦ [Section 2.2.7, "Enterprise Application \(EAR\) Service"](#)
- ✦ [Section 2.1.7, "Entity EJB Service"](#)
- ✦ [Section 2.1.8, "JBossMessaging Service"](#)
- ✦ [Section 2.1.9, "JBossMQ Service"](#)
- ✦ [Section 2.1.10, "Message Driven EJB Service"](#)
- ✦ [Section 2.2.14, "Script Service"](#)
- ✦ [Section 2.1.12, "Stateful Session EJB Service"](#)



- ✦ [Section 2.1.13, “Stateless Session EJB Service”](#)
- ✦ [Section 2.2.17, “Web Application \(WAR\) Service”](#)

## Autodiscovery Process Scans

Table 2.2. Metrics

Name	Query
JBoss4	process basename match=^java.* arg org.jboss.Main match=.*

## Connection Properties

Table 2.3.

Name	Description	Required	Internal Name
Naming Provider URL	The JNP URL with which to connect to the JBoss Application Server instance (e.g. <code>jnp://127.0.0.1:1099</code> ).	yes	namingURL
Principal	The name of the principal (i.e. user) to authenticate.	no	principal
Credentials	The credentials (i.e. password) that should be used to authenticate the principal.	no	credentials
JBoss Home Directory	The absolute path to the directory where JBossAS is installed (e.g. <code>/opt/jboss-4.2.2.GA</code> ).	yes	jbossHomeDir
Configuration Path	The path to the configuration directory under which this instance operates (e.g. <code>/opt/jboss-4.2.2.GA/server/default</code> ); if the path is not absolute, then it will be resolved relative to <code>{jbossHomeDir}</code> .	yes	configurationPath
Configuration Set	The name of the server configuration (e.g. <code>minimal</code> , <code>default</code> , or <code>all</code> ); if not specified, it will default to the last path component of <code>{configurationPath}</code> .	no	configurationSet

Name	Description	Required	Internal Name
Script Prefix	A prefix applied to script execution commands; this prefix is applied verbatim. The full path of the executable is required (e.g. /usr/bin/sudo). For applicable platforms, this is typically a sudo command, so a sudo user must be configured appropriately for the specified command. Ignored if not set.	no	scriptPrefix
Start Script	The path to the script used by the 'Start' operation to start this JBossAS server (e.g. /opt/jboss-4.2.2.GA/bin/run.sh); if the path is not absolute, then it will be resolved relative to {jbossHomeDir}; defaults to 'bin/run.sh' on UNIX or 'bin\run.bat' on Windows.	no	startScript
Shutdown Script	The path to the script used by the 'Shutdown' operation to shutdown this JBossAS server (e.g. /opt/jboss-4.2.2.GA/bin/shutdown.sh); if the path is not absolute, then it will be resolved relative to {jbossHomeDir}; defaults to 'bin/shutdown.sh' on UNIX or 'bin\shutdown.bat' on Windows.	no	shutdownScript
Shutdown Method	The method used to execute the Shutdown operation; defaults to 'JMX MBean'.	no	shutdownMethod
Binding Address	The host or IP address used by all JBoss services as the binding address (e.g. 10.11.14.233); specify 0.0.0.0 to tell JBossAS to bind to all available network interfaces; defaults to '127.0.0.1'.	no	bindingAddress

Name	Description	Required	Internal Name
JAVA_HOME Path	The absolute path to a JRE or JDK installation directory containing the JVM that should be used to start and shutdown the JBossAS instance; defaults to the home directory of the RHQ agent JRE.	no	javaHomePath
Start Wait Max	The time, in minutes, (e.g. 1 or 8) that must elapse before the server is considered to have failed to start up. The default is 5 minutes.	no	startWaitMax
Stop Wait Max	The time, in minutes, (e.g. 1 or 8) that must elapse before the server is considered to have failed to stop. The default is 2.5 minutes.	no	stopWaitMax
Log Event Sources		yes	logEventSources
Snapshot Config Enabled	If true, take a snapshot of the configuration	yes	snapshotConfigEnabled
Snapshot Config Directory	The directory containing the configuration files that will be captured in the snapshot. This is usually relative to the configurationPath but can be a full absolute path.	yes	snapshotConfigDirectory
Snapshot Config Regex	If defined, this regular expression must match a configuration file name if that file is to be captured in the snapshot. If not defined, all configuration files will be captured.	no	snapshotConfigRegex
Snapshot Config Recursive	If true, the snapshot will include files located in subdirectories under the config directory.	yes	snapshotConfigRecursive
Snapshot Log Enabled	If true, take a snapshot of the log files	yes	snapshotLogEnabled
Snapshot Log Directory	The directory containing the log files that will be captured in the snapshot. This is usually relative to the configurationPath but can be a full absolute path.	yes	snapshotLogDirectory

Name	Description	Required	Internal Name
Snapshot Log Regex	If defined, this regular expression must match a log file name if that file is to be captured in the snapshot. If not defined, all log files will be captured.	no	snapshotLogRegex
Snapshot Log Recursive	If true, the snapshot will include files located in subdirectories under the log directory.	yes	snapshotLogRecursive
Snapshot Data Enabled	If true, take a snapshot of the data files	yes	snapshotDataEnabled
Snapshot Data Directory	The directory containing the data files that will be captured in the snapshot. This is usually relative to the configurationPath but can be a full absolute path.	yes	snapshotDataDirectory
Snapshot Data Regex	If defined, this regular expression must match a data file name if that file is to be captured in the snapshot. If not defined, all data files will be captured.	no	snapshotDataRegex
Snapshot Data Recursive	If true, the snapshot will include files located in subdirectories under the data directory.	yes	snapshotDataRecursive
Snapshot Additional Files List	Additional files to be included in the snapshot report	yes	snapshotAdditionalFilesList
Type	The type of the connection.	yes	type
Shutdown MBean Name	Name of the MBean to use when shutting down this server through JMX.	yes	shutdownMbeanName
Shutdown MBean Operation	Name of the operation to invoke when shutting down this server through JMX. Note that only operations with no parameter or with one int parameter are supported. If the operation requires an int parameter, '0' will be supplied.	yes	shutdownMbeanOperation

Name	Description	Required	Internal Name
Availability Check Period	The amount of time, in seconds, that must elapse between availability checks to see if the server is up. If set, the availability checks will be performed asynchronously thus allowing slow-responding servers to avoid being falsely reported as down.	no	availabilityCheckPeriod
JBoss AS JVM Name	The name of the JBoss AS JVM resource.	no	childJmxServerName



### Note

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

## Metrics

Table 2.4. Metrics

Name	Type	Description	Internal Name
Partition Name	trait	the name of the cluster partition this app server instance belongs to	partitionName
Version Name	trait	the code name for the this app server instance's major version (AS 3.2 = WonderLand, AS 4.0 = Zion, AS 4.2 = Trinity, EAP 4.x = EAP, SOA 4.x = SOA)	jboss.system:type=Server:VersionName
Build Date	trait	the date this app server was built	jboss.system:type=Server:BuildDate
Start Date	trait	the date and time this app server instance was started	jboss.system:type=Server:StartDate
Active Thread Count	measurement	The current number of active threads for this app server instance	jboss.system:type=ServerInfo:ActiveThreadCount
Active Thread Group Count	measurement	The current number of active thread groups for this app server instance	jboss.system:type=ServerInfo:ActiveThreadGroupCount

Name	Type	Description	Internal Name
JVM Free Memory	measurement	An approximation of the total amount of memory currently available in the app server JVM for future allocated objects, measured in bytes	jboss.system:type=ServerInfo:FreeMemory
JVM Max Memory	measurement	The maximum amount of memory that the app server JVM will attempt to use, measured in bytes; if there is no inherent limit then the value Long.MAX_VALUE will be returned	jboss.system:type=ServerInfo:MaxMemory
JVM Total Memory	measurement	The total amount of memory currently available in the app server JVM for current and future objects, measured in bytes	jboss.system:type=ServerInfo:TotalMemory
Total Transactions	measurement	Total number of transactions since last restart	jboss:service=TransactionManager:TransactionCount
Total Transactions per Minute	measurement	Total number of transactions since last restart	jboss:service=TransactionManager:TransactionCount
Transactions Committed	measurement	Number of transactions committed since last restart	jboss:service=TransactionManager:CommitCount
Transactions Committed per Minute	measurement	Number of transactions committed since last restart	jboss:service=TransactionManager:CommitCount
Transactions Rolledback	measurement	Number of transactions committed since last restart	jboss:service=TransactionManager:RollbackCount
Transactions Rolledback per Minute	measurement	Number of transactions committed since last restart	jboss:service=TransactionManager:RollbackCount



### Note

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

## Configuration Properties

none

## Operations

Table 2.5. Metrics

Name	Description
Start	Start this application server. The script used is specified in the Operations group of connection properties.
Shutdown	Shutdown this application server via script or JMX depending on the settings in the Operations and Advanced groups of connection properties.
Restart	Shutdown and then start this application server.

## Package Types

Table 2.6. Package Types

Name	Category	Description
Cumulative Patch	Deployable	Automatically installable application server patches
Jar Library	Deployable	Library Jar files deployed in JBoss AS

### 2.1.1. ConnectionFactory Service

#### Overview

Table 2.7. Overview

Description:	
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.8.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this Connection Factory	yes	name

**Note**

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

**Metrics****Table 2.9. Metrics**

Name	Type	Description	Internal Name
Available Connection Count	measurement	Number of available connections.	AvailableConnectionCount
Connection Count	measurement	Connection Count	ConnectionCount
Connection Created Count	measurement	Connection Created Count	ConnectionCreatedCount
Connection Destroyed Count	measurement	Connection Destroyed Count	ConnectionDestroyedCount
In Use Connection Count	measurement	Number of connections currently in use.	InUseConnectionCount
Max Connections In Use Count	measurement	Maximum number of maximum connections that have been in use.	MaxConnectionsInUseCount
Max Size	measurement	Max Size	MaxSize
Min Size	measurement	Min Size	MinSize

**Note**

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

**Configuration Properties****Table 2.10.**

Name	Description	Required	Internal Name
Connection Factory Type	Connection Factory Type (Tx or no Tx)	yes	type
JNDI Name	The JNDI Name under which the DataSource wrapper will be bound.	yes	jndi-name



Name	Description	Required	Internal Name
User Name	This element specifies the default username used when creating a new connection. The actual username may be overridden by the application code <code>getConnection</code> parameters or the connection creation context JAAS Subject.	no	user-name
Password	This element specifies the default password used when creating a new connection. The actual password may be overridden by the application code <code>getConnection</code> parameters or the connection creation context JAAS Subject.	no	password
Minimum Pool Size	Indicates the minimum number of connections the pool should hold.	no	min-pool-size
Maximum Pool Size	Indicates the maximum number of connections the pool should hold.	no	max-pool-size
Application Managed Security	Specifying this element indicates that connections in the pool should be distinguished by application code supplied parameters, such as from <code>getConnection(user, pw)</code> . This requires that you set a security domain which will populate a security-domain-and-application tag. If it is missing this resource will not be created or saved.	no	application-managed-security

Name	Description	Required	Internal Name
Security Domain/Security Domain and Application	Indicates Subjects from security domain are used to distinguish connections in this pool. If Application Managed Security is set to true, then this will create a security-domain tag. If it is set to false or unset, then this property will populate a security-domain-and-application tag.	no	security-domain
Adapter Display Name	used to identify the RAR deployment matching the display-name in the ra.xml	no	adapter-display-name
Depends	The depends element specifies the JMX ObjectName string of a service that the connection manager services depend on. The connection manager service will not be started until the dependent services have been started.	no	depends
Rar Name	This is the name of the RAR file that contains the definition for the resource we want to provide. For nested RAR files, the name would look like myapplication.ear#my.rar.	yes	rar-name
Connection Definition	This is the connection factory interface class. It should match the connectionfactory-interface in the ra.xml file.	yes	connection-definition
Type Mappings	This element declares a default type mapping for this datasource. The type mapping should match a type-mapping/name element from standardjbosscomp-jdbc.xml.	no	type-mapping
Use Java Context	Indicates if the JNDI name should be prefixed with java:.	no	use-java-context

Name	Description	Required	Internal Name
Transaction Type	Whether to use local or xa transactions. If nothing is specified, the default of local will be used.	no	transaction-type
No Tx Separate Pools	The presence of this element indicates that two connection pools are required to isolate connections used with JTA transaction from those used without a JTA transaction. The pools are lazily constructed on first use. Its use case is for Oracle (and possibly other vendors) XA implementations that don't like using an XA connection with and without a JTA transaction.	no	no-tx-separate-pools
Track Connection By Transaction	Whether the connection should be locked into the transaction.	no	track-connection-by-tx
isSameRM Override Value	Allows one to unconditionally set whether the <code>javax.transaction.xa.XAResource.isSameRMXA</code> Resource returns true or false. The default is not to override the return value.	no	isSameRM-override-value
Use Strict Minimum	Whether on not to use strict mininum.	no	use-strict-min
Prefill	Prefill the Pool with Connection objects, or lazy load objects in the pool	no	prefill

Name	Description	Required	Internal Name
Blocking Timeout in Milliseconds	Indicates the maximum time in milliseconds to block while waiting for a connection before throwing an exception. Note that this blocks only while waiting for a permit for a connection, and will never throw an exception if creating a new connection takes an inordinately long time. If nothing is specified the default of 30000 milliseconds is used.	no	blocking-timeout-millis
Idle Timeout	Maximum time in minutes a connection can be idle before it is closed.	no	idle-timeout-minutes
XA Resource Timeout	Maximum time in minutes an XA Resource can be idle before it is removed.	no	xa-resource-timeout
New Connection SQL	Specify an SQL statement to execute whenever a connection is added to the connection pool.	no	new-connection-sql
Check Valid Connection SQL	Specify an SQL statement to check validity of a pool connection. This may be called when managed connection is taken from pool for use.	no	check-valid-connection-sql
Config Property	Configuration Properties	no	config-property



### Note

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

## Operations

none

## Package Types

none

### 2.1.2. Datasource Service

## Overview

**Table 2.11. Overview**

Description:	
Singleton:	no
Plugin:	JBossAS

## Parent Resource Types

- ✱ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.12.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this datasource	yes	name



### Note

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

## Metrics

**Table 2.13. Metrics**

Name	Type	Description	Internal Name
Total Connections	measurement	Total Number of Connections for the Connection Pool, both active and in-active.	ConnectionCount
Available Connections	measurement	Number of available connections in the connection pool in-active and waiting.	AvailableConnectionCount
Active Connections	measurement	Number of Connections currently supporting clients.	InUseConnectionCount

Name	Type	Description	Internal Name
Connections Created	measurement	Number of Connections created since the Connection Pool was created.	ConnectionCreatedCount
Connections Created per Minute	measurement	Number of Connections created since the Connection Pool was created.	ConnectionCreatedCount
Connections Destroyed	measurement	Number of Connections destroyed since the Connection Pool was created.	ConnectionDestroyedCount
Connections Destroyed per Minute	measurement	Number of Connections destroyed since the Connection Pool was created.	ConnectionDestroyedCount



### Note

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

## Configuration Properties

Table 2.14.

Name	Description	Required	Internal Name
Type		yes	type
JNDI Name	The JNDI name under which the DataSource wrapper will be bound.	yes	jndi-name
Driver Class	The fully qualified name of the JDBC driver or datasource class. Not used for XA-Datasources	no	driver-class
Connection Url	The JDBC driver connection URL string. Needed for Tx and Non-Tx datasources	no	connection-url
User Name		no	user-name
Password		no	password
Min Pool Size		no	min-pool-size
Max Pool Size		no	max-pool-size
Transaction Isolation	The Transaction Isolation level. The default setting is to use whichever isolation level is provided by default by the database.	no	transaction-isolation

Name	Description	Required	Internal Name
Blocking Timeout Millis	Indicates the maximum time in milliseconds to block while waiting for a connection before throwing an exception. Note that this blocks only while waiting for a permit for a connection, and will never throw an exception if creating a new connection takes an inordinately long time. If nothing is specified the default of 30000 milliseconds is used.	no	blocking-timeout-millis
Idle Timeout Minutes	Indicates the maximum time in minutes a connection may be idle before being closed. The actual maximum time depends also on the IdleRemover scan time, which is 1/2 the smallest idle-timeout-minutes of any pool. If nothing is specified the default of 15 minutes is used.	no	idle-timeout-minutes
Prepared Statement Cache Size	The number of prepared statements per connection in an LRU cache.	no	prepared-statement-cache-size
Valid Connection Checker Class Name	An <code>org.jboss.resource.adapter.jdbc.ValidConnectionChecker</code> that provides a <code>SQLException isValidConnection(Connection e)</code> method to validate is a connection is valid. An exception means the connection is destroyed. This overrides the <code>check-valid-connection-sql</code> when present.	no	valid-connection-checker-class-name
Use Java Context	Indicates if the JNDI name should be prefixed with <code>java:</code> which causes the <code>DataSource</code> to only be accessible from within the JBoss server vm. The default is Yes.	no	use-java-context

Name	Description	Required	Internal Name
Security Domain	Indicates Subjects (from security domain) are used to distinguish connections in the pool. The content of the security domain is the name of the JAAS security manager that will handle authentication. This name correlates to the JAAS login-config.xml descriptor application-policy/name attribute. Must be specified if either Container Based or Container and Application Based authentication types are specified.	no	security-domain
New Connection Sql	Specify an SQL statement to execute whenever a connection is added to the connection pool.	no	new-connection-sql
Exception Sorter Class Name	An <code>org.jboss.resource.adapter.jdbc.ExceptionSorter</code> that provides a <code>boolean isExceptionFatal(SQLException e)</code> method to validate is an exception should be broadcast to all <code>javax.resource.spi.ConnectionEventListener</code> as a <code>connectionErrorOccurred</code> message.	no	exception-sorter-class-name
Check Valid Connection Sql	Specify an SQL statement to check validity of a pool connection. This may be called when managed connection is taken from pool for use.	no	check-valid-connection-sql



Name	Description	Required	Internal Name
Track Statements	Whether to check for unclosed statements when a connection is returned to the pool and result sets are closed when a statement is closed/returned to the prepared statement cache. The default is Yes, but no warnings.	no	track-statements
Xa Datasource Class	The datasource class for XA connections.	no	xa-datasource-class
Connection Property		no	connection-property
No Tx Separate Pools	Whether to use separate pools for connections retrieved in a transaction and those retrieved outside a transaction. The default is Yes.	no	no-tx-separate-pools
Application Managed Security		no	application-managed-security
Security Domain and Application		no	security-domain-and-application
Track Connection By Tx	Whether the connection should be "locked" to the transaction, returning it to the pool at the end of the transaction. The default is No.	no	track-connection-by-tx
Is Same RM Override Value	Allows one to unconditionally set whether the <code>javax.transaction.xa.XAResource.isSameRM(XAResource)</code> returns true or false. The default is not to override the return value.	no	isSameRM-override-value



### Note

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

## Operations

Table 2.15. Metrics

Name	Description
------	-------------

Name	Description
Flush	Resets the connection pool for this datasource. Performs the following steps: 1) all idle connections are immediately closed, 2) any in use connections are closed when the application finishes with them, and 3) new connections are created.

## Package Types

none

### 2.1.3. EJB3 Entity Tree Cache Service

#### Overview

Table 2.16. Overview

Description:	The entity cache
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

#### Child Resource Types

- ✦ [Section 2.1.3.1, “EJB3 Entity Tree Cache Interceptor Service”](#)

#### Connection Properties

Table 2.17.

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



#### Note

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

#### Metrics

Table 2.18. Metrics

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

Name	Type	Description	Internal Name
Number Of Locks Held	measurement	The number of entities locked for update / replication across the (clustered) tree cache	NumberOfLocksHeld
Number Of Nodes	measurement	The total number of entities currently cached across the (clustered) tree cache	NumberOfNodes



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.1.3.1. EJB3 Entity Tree Cache Interceptor Service

#### Overview

Table 2.19. Overview

Description:	The entity cache interceptor
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

- » [Section 2.1.3, “EJB3 Entity Tree Cache Service”](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.20.

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



## Note

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

## Metrics

**Table 2.21. Metrics**

Name	Type	Description	Internal Name
Hit Miss Ratio	measurement	Returns the hit/miss ratio for the cache. This ratio is defined as hits/(hits + misses).	HitMissRatio
Read Write Ratio	measurement	Returns the read/write ratio for the cache. This ratio is defined as (hits + misses)/stores.	ReadWriteRatio
Hits	measurement	Returns the number of requests made to this cache which it could answer without interrogating the underlying data store	Hits
Misses	measurement	Returns the number of requests made to this cache which required interrogating the underlying data store	Misses
Evictions	measurement	Returns the number of elements purged from this cache in accordance with its specific eviction policy	Evictions
Number Of Locks Held	measurement	The number of elements locked by this interceptor for update / replication across the (clustered) tree cache	NumberOfLocksHeld
Number Of Nodes	measurement	The total number of entities currently cached across the (clustered) tree cache	NumberOfNodes
Average Write Time	measurement	The average time it takes to insert or update elements for the cache	AverageWriteTime
Time Since Reset	measurement	The amount of time since this cache was reset / cleared	TimeSinceReset
Average Read Time	measurement	The average time it takes to read elements for the cache, includes	AverageReadTime

Name	Type	Description	Internal Name
Stores	measurement	Number of store / writes into this cache made by this interceptor	Stores
Number Of Attributes	measurement	The total number of attributes (properties of an entity) currently cached across the (clustered) tree cache	NumberOfAttributes
Elapsed Time	measurement	The amount of time since this cache was created	ElapsedTime



### Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.1.4. EJB3 Session Bean Service

### Overview

Table 2.22. Overview

Description:	An EJB3 Stateless or Stateful Session Bean
Singleton:	no
Plugin:	JBossAS

### Parent Resource Types

- ✦ [Section 2.1, "JBossAS 4.x and EAP 4.x Server"](#)

### Child Resource Types

none

### Connection Properties

Table 2.23.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this bean	yes	name
Ear		yes	ear
Jar		yes	jar



### Note

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

## Metrics

Table 2.24. Metrics

Name	Type	Description	Internal Name
Current Count	measurement	The total number of currently pooled instances of this EJB3 Session Bean	CurrentSize
Create Count	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	CreateCount
Create Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	CreateCount
Remove Count	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	RemoveCount
Remove Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	RemoveCount
Available Count	measurement	The number of pooled instances of this EJB3 Session Bean in the method-ready state	AvailableCount
Max Size	measurement	The maximum number of instances that are allowed to be pooled	MaxSize

Name	Type	Description	Internal Name
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB; NOTE: this metric is only available if JBoss EJB3 RC9 Patch 1 or later is being used (a capable version of EJB3 is included with JBossAS 4.2.0.GA or later)	MethodInvocationTime



### Note

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

## Configuration Properties

none

## Operations

Table 2.25. Metrics

Name	Description
View Method Stats	View method execution statistics for the EJB; NOTE: this operation is only available if JBoss EJB3 RC9 Patch 1 or later is being used (a capable version of EJB3 is included with JBossAS 4.2.0.GA or later)

## Package Types

none

## 2.1.5. Embedded Tomcat Server

### Overview

Table 2.26. Overview

Description:	Tomcat Web Application Container embedded in a JBossAS Server
Singleton:	yes
Plugin:	JBossAS

## Parent Resource Types

- [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

- [Section 2.2.9.1, “Connector Service”](#)
- [Section 2.1.5.2, “VHost Service”](#)

## Autodiscovery Process Scans

none

## Connection Properties

none

## Metrics

none

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.1.5.1. Connector Service

### Overview

**Table 2.27. Overview**

Description:	
Singleton:	no
Plugin:	JBossAS

## Parent Resource Types

- [Section 2.1.5, “Embedded Tomcat Server”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.28.**



Name	Description	Required	Internal Name
Object Name		yes	objectName
Port	Port this connector listens on.	yes	port
Address	Address this connector listens on.	yes	address
Scheme	The scheme of the protocol used by this connector (e.g. jk, ajp, http, https).	yes	schema
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

Table 2.29. Metrics

Name	Type	Description	Internal Name
Maximum Request Time	measurement	Maximum time it took to process a request	jboss.web:name=%schema%-address%-port%,type=GlobalRequestProcessor:maxTime
Request count	measurement	Total number of requests processed since last restart.	jboss.web:name=%schema%-address%-port%,type=GlobalRequestProcessor:requestCount
Request count per Minute	measurement	Total number of requests processed since last restart.	jboss.web:name=%schema%-address%-port%,type=GlobalRequestProcessor:requestCount
Error count	measurement	Number of errors while processing since last restart.	jboss.web:name=%schema%-address%-port%,type=GlobalRequestProcessor:errorCount

Name	Type	Description	Internal Name
Error count per Minute	measurement	Number of errors while processing since last restart.	jboss.web:name=%schema%-address%-port%,type=GlobalRequestProcessor:errorCount
Threads Active	measurement	Threads Active	jboss.web:name=%schema%-address%-port%,type=ThreadPool:currentThreadsBusy
Threads Allocated	measurement	Threads Allocated	jboss.web:name=%schema%-address%-port%,type=ThreadPool:currentThreadCount



### Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

### 2.1.5.2. VHost Service

#### Overview

**Table 2.30. Overview**

Description:	A virtual host in the web container
Singleton:	no
Plugin:	JBossAS

### Parent Resource Types

- » [Section 2.1.5, "Embedded Tomcat Server"](#)

### Child Resource Types

none

## Connection Properties

Table 2.31.

Name	Description	Required	Internal Name
Object Name		yes	objectName



### Note

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

## Metrics

Table 2.32. Metrics

Name	Type	Description	Internal Name
Aliases	trait	The aliases for this virtual host	jboss.web:type=Host,host=%name%:aliases



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.1.6. Enterprise Application (EAR) Service

### Overview

Table 2.33. Overview

Description:	Enterprise Application
Singleton:	no
Plugin:	JBossAS

## Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

- ✱ [Section 2.1.6.1, “Embedded Web Application \(WAR\) Service”](#)

## Connection Properties

Table 2.34.

Name	Description	Required	Internal Name
Name	The name of this EAR	yes	name
Filename		yes	filename
Object Name		yes	objectName
Name Template		yes	nameTemplate
Extension		yes	extension
Description Template		yes	descriptionTemplate



### Note

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

## Metrics

Table 2.35. Metrics

Name	Type	Description	Internal Name
Path	trait	The absolute path of this EAR file or directory	Application.path
Exploded?	trait	Whether this EAR is deployed exploded (i.e. as a directory)	Application.exploded



### Note

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

## Configuration Properties

none

## Operations

Table 2.36. Metrics

Name	Description
Revert	Tries to revert this enterprise application from a saved backup in the same directory and with a name ending in .bak

## Package Types

Table 2.37. Package Types

Name	Category	Description
EAR File	Deployable	

### 2.1.6.1. Embedded Web Application (WAR) Service

#### Overview

Table 2.38. Overview

Description:	Web Application embedded inside of an Enterprise Application
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

- ✧ [Section 2.1.6, “Enterprise Application \(EAR\) Service”](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.39.

Name	Description	Required	Internal Name
Name	The name of this WAR	yes	name
Filename		yes	filename
Object Name		yes	objectName
Context Root	this WAR's context root - used as a unique path prefix for URLs corresponding to this WAR	no	contextRoot
Virtual Host	The (virtual) host that this application is running on. If no virtual host is set, this defaults to 'localhost'	no	vHost
Jboss Web Name	the objectName for the jboss.web WebModule that will be used to fire operations	no	jbossWebName
Response Time Log File	the full path to the log file containing response-time stats for this webapp	no	responseTimeLogFile

Name	Description	Required	Internal Name
Response Time Url Excludes	a space-delimited list of regular expressions specifying URLs that should be excluded from response-time stats collection	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions that should be applied to all URLs for which response-time stats are collected (e.g. <code> ^/dept/finance/.*/dept/finance/* </code> )	no	responseTimeUrlTransforms
Name Template		yes	nameTemplate
Extension		yes	extension
Description Template		yes	descriptionTemplate



### Note

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

## Metrics

**Table 2.40. Metrics**

Name	Type	Description	Internal Name
Path	trait	the absolute path of this WAR file or directory	Application.path
Exploded?	trait	whether this WAR is deployed exploded (i.e. as a directory)	Application.exploded
Context Root	trait	this WAR's context root - used as a unique path prefix for URLs corresponding to this WAR	ContextRoot
HTTP Response Time	calltime	the minimum, maximum, and average response times for HTTP requests serviced by this webapp	ResponseTime
Min. Servlet Resp. Time	measurement	Minimum response time of a servlet	Servlet.MinResponseTime
Avg. Servlet Resp. Time	measurement	Average response time of a servlet	Servlet.AvgResponseTime
Max. Servlet Resp. Time	measurement	Maximum response time of a servlet	Servlet.MaxResponseTime
Total processing time	measurement	Total processing time of the webapp	Servlet.TotalTime

Name	Type	Description	Internal Name
Total processing time per Minute	measurement	Total processing time of the webapp	Servlet.TotalTime
Requests served	measurement	Number of requests served by servlets	Servlet.NumRequests
Requests served per Minute	measurement	Number of requests served by servlets	Servlet.NumRequests
Errors while processing	measurement	Number of errors while processing	Servlet.NumErrors
Errors while processing per Minute	measurement	Number of errors while processing	Servlet.NumErrors
Currently Active Sessions	measurement	Number active sessions for the webapp right now	Session.activeSessions
Maximum number of Active Sessions	measurement	Maximum number of active sessions for the webapp	Session.maxActive
Sessions created	measurement	Number of sessions created for the webapp	Session.sessionCounter
Sessions created per Minute	measurement	Number of sessions created for the webapp	Session.sessionCounter
Expired Sessions	measurement	Number of expired sessions for the webapp	Session.expiredSessions
Expired Sessions per Minute	measurement	Number of expired sessions for the webapp	Session.expiredSessions
Rejected Sessions	measurement	Number of sessions rejected for the webapp	Session.rejectedSessions
Rejected Sessions per Minute	measurement	Number of sessions rejected for the webapp	Session.rejectedSessions
Session Average alive time	measurement	Average alive time of a Sessions	Session.sessionAverageAliveTime
Max Session alive time	measurement	Maximum alive time of a Sessions	Session.sessionMaxAliveTime
Vhost	trait	Virtual hosts this app runs on	Vhost.name



### Note

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

### Configuration Properties

none

### Operations

**Table 2.41. Metrics**

Name	Description
------	-------------

Name	Description
Start	starts this webapp; NOTE: this operation is *not* supported for JBossAS versions prior to 4.0.4.GA (see <a href="http://jira.jboss.org/jira/browse/JBAS-3006">http://jira.jboss.org/jira/browse/JBAS-3006</a> )
Stop	stops this webapp; NOTE: this operation is *not* supported for JBossAS versions prior to 4.0.4.GA (see <a href="http://jira.jboss.org/jira/browse/JBAS-3006">http://jira.jboss.org/jira/browse/JBAS-3006</a> )
Reload	reloads this webapp; NOTE: if the webapp is not in the started state, this operation will fail

## Package Types

none

## 2.1.7. Entity EJB Service

### Overview

**Table 2.42. Overview**

Description:	An EJB 1.x or 2.x Entity Bean
Singleton:	no
Plugin:	JBossAS

## Parent Resource Types

» [Section 2.1, "JBossAS 4.x and EAP 4.x Server"](#)

## Child Resource Types

none

## Connection Properties

**Table 2.43.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this ejb	yes	name
J 2ee Application		yes	j2eeApplication
Ejb Jar		yes	ejbJar



### Note

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



## Metrics

Table 2.44. Metrics

Name	Type	Description	Internal Name
Create Calls	measurement	The number of instances of this EJB 1.x or 2.x Entity Bean that have been created since server start	{stats.createCount.count}
Create Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Entity Bean that have been created since server start	{stats.createCount.count}
Remove Calls	measurement	The number of instances of this EJB 1.x or 2.x Entity Bean that have been removed since server start	{stats.removeCount.count}
Remove Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Entity Bean that have been removed since server start	{stats.removeCount.count}
Method-Ready Beans	measurement	The number of pooled instances of this EJB 1.x or 2.x Entity Bean in the method-ready state	{stats.methodReadyCount.current}
Pooled Beans	measurement	The total number of currently pooled instances of this EJB 1.x or 2.x Entity Bean	{stats.pooledCount.current}
Cache Size	measurement	The total number of currently cached instances of this EJB 1.x or 2.x Entity Bean	{{jboss.j2ee:jndiName=%name%,plugin=cache,service=EJB}CacheSize}
Passivated Count	measurement	The number of pooled instances of this EJB 1.x or 2.x Entity Bean in the passivated state	{{jboss.j2ee:jndiName=%name%,plugin=cache,service=EJB}PassivatedCount}
Passivated Count per Minute	measurement	The number of pooled instances of this EJB 1.x or 2.x Entity Bean in the passivated state	{{jboss.j2ee:jndiName=%name%,plugin=cache,service=EJB}PassivatedCount}
Current Size	measurement	The total number of currently pooled instances of this EJB 1.x or 2.x Entity Bean	{{jboss.j2ee:jndiName=%name%,plugin=pool,service=EJB}PoolSize}
Max Size	measurement	The maximum number of instances that are allowed to be pooled	{{jboss.j2ee:jndiName=%name%,plugin=pool,service=EJB}MaxPoolSize}

**Note**

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

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**2.1.8. JBossMessaging Service****Overview****Table 2.45. Overview**

Description:	The JBoss Messaging subsystem
Singleton:	yes
Plugin:	JBossAS

**Parent Resource Types**

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

**Child Resource Types**

- » [Section 2.1.8.1, “JBM JMS Queue Service”](#)
- » [Section 2.1.8.2, “JBM JMS Topic Service”](#)

**Connection Properties****Table 2.46.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name		yes	name

**Note**

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

## Metrics

Table 2.47. Metrics

Name	Type	Description	Internal Name
Version of the Provider	trait	The version of JBoss Messaging in use	jboss.messaging:service=ServerPeer:ProviderVersion



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.1.8.1. JBM JMS Queue Service

#### Overview

Table 2.48. Overview

Description:	
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

- ✦ [Section 2.1.8, “JBossMessaging Service”](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.49.

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

Name	Description	Required	Internal Name
Name	The name of this queue	yes	name



### Note

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

## Metrics

**Table 2.50. Metrics**

Name	Type	Description	Internal Name
Messages in Queue	measurement	The number of messages in the queue.	MessageCount
Consumer Count	measurement	The number of ClientConsumers waiting for a message.	ConsumerCount
Scheduled Message Count	measurement	The number of scheduled messages in the Queue	ScheduledMessageCount
Created programmatically	trait	Was this Queue created dynamically	CreatedProgrammatically
Delivering Count	measurement	The number of messages currently being delivered	DeliveringCount



### Note

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

## Configuration Properties

**Table 2.51.**

Name	Description	Required	Internal Name
Server Peer	The ObjectName of the server peer this destination was deployed on.	yes	ServerPeer
Dead Letter Queue	The DLQ for this queue, overrides the default DLQ on the server peer.	no	DLQ

Name	Description	Required	Internal Name
Expiry Queue	By default, JBoss Messaging silently removes expired JMS message from its destination. ExpiryDestination indicates the javax.management.ObjectName of the expiry destination. This destination must be located on the same server and be a JBossMessaging destination.	no	ExpiryQueue
JNDI Name	The location in JNDI to which the queue object will be bound. If this is not set it will be bound under the queue context using the name of the queue. This property is optional, in most cases the mbean name is used for binding purpose. See {server-config}/deploy/jms/jbossmq-destinations-service.xml for examples.	no	JNDIName
Clustered	Is this a clustered destination?	no	Clustered
Max Delivery Attempts	The maximum times a message is nacked before a message is sent to the Dead Letter Queue (0 - don't redeliver, n - redeliver n times, -1 - continue redelivering indefinitely)	no	MaxDeliveryAttempts
Redelivery Delay	The length of time in milliseconds to wait before a message is redelivered after a nack	no	RedeliveryDelay
Message Counter History Day Limit	Sets the destination message counter history day limit with a value less than 0 indicating unlimited history, a 0 value disabling history and a value greater than 0 giving the history days count.	no	MessageCounterHistoryDayLimit

Name	Description	Required	Internal Name
Maximum Queue Size	The maximum number of messages this queue can hold before they are dropped (-1 = infinite)	no	MaxSize
Full Size	The in-memory message limit, can only be set when queue is stopped	no	FullSize
Page Size	The paging size, can only be set when queue is stopped	no	PageSize
Down Cache Size	The write-cache size, can only be set when queue is stopped	no	DownCacheSize
Security Configurations	This element specifies a XML fragment which describes the access control list to be used by the SecurityManager to authorize client operations against the destination. The content model is the same as for the SecurityManager SecurityConf attribute.	yes	SecurityConfig
Queue Name	Name of the queue to be used in the JMX object name.	yes	MBeanName
JNDI Binding	Binding path of this Queue in JNDI.	yes	JNDIBinding



### Note

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

## Operations

**Table 2.52. Metrics**

Name	Description
Remove All Messages	Clears all Messages in the Queue
Reset Message Counter	Clears the MessageCounter data for this Queue
Reset Message Counter History	Clears the MessageCounter history data for this Queue
List Messages by Selector	Lists the Messages in the Queue by Selector (if provided). Selector is not required.
List All Messages	Lists All Messages by Selector (if provided). Selector is not required.
List Durable Messages	Lists Durable Messages by Selector (if provided). Selector is not required.

Name	Description
List Non-Durable Messages	Lists Non-Durable Messages by Selector (if provided). Selector is not required.

### Package Types

none

### 2.1.8.2. JBM JMS Topic Service

#### Overview

**Table 2.53. Overview**

Description:	
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

✱ [Section 2.1.8, “JBossMessaging Service”](#)

#### Child Resource Types

none

#### Connection Properties

**Table 2.54.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this topic	yes	name



#### Note

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

#### Metrics

**Table 2.55. Metrics**

Name	Type	Description	Internal Name
All Message Counter	measurement	Returns the total message count for all subscriptions.	AllMessageCount

Name	Type	Description	Internal Name
Durable Message Count	measurement	Total number of messages for all durable subscriptions.	DurableMessageCount
Non-durable Message Count	measurement	Total number of messages for all non-durable subscriptions.	NonDurableMessageCount
All Subscription Count	measurement	Number of subscriptions waiting for a message.	AllSubscriptionsCount
Durable Subscription Count	measurement	Number of durable subscriptions waiting for a message.	DurableSubscriptionsCount
Non-durable Subscription Count	measurement	Number of non-durable subscriptions waiting for a message.	NonDurableSubscriptionCount
Created programmatically	trait	Was this Topic created dynamically	CreatedProgrammatically



### Note

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

## Configuration Properties

Table 2.56.

Name	Description	Required	Internal Name
Server Peer	The ObjectName of the server peer this destination was deployed on.	yes	ServerPeer
Dead Letter Queue	The DLQ for this queue, overrides the default DLQ on the server peer.	no	DLQ
Expiry Queue	By default, JBoss Messaging silently removes expired JMS message from its destination. ExpiryDestination indicates the javax.management.ObjectName of the expiry destination. This destination must be located on the same server and be a JBossMessaging destination.	no	ExpiryQueue



Name	Description	Required	Internal Name
JNDI Name	The location in JNDI to which the topic will be bound. If this is not set it will be bound under the topic context using the mbean name of the topic. This property is optional, in most cases the mbean name is used for binding purpose. See {server-config}/deploy/jms/jboss-mq-destinations-service.xml for examples.	no	JNDIName
Clustered	Is this a clustered destination?	no	Clustered
Max Delivery Attempts	The maximum times a message is nacked before a message is sent to the Dead Letter Queue (0 - don't redeliver, n - redeliver n times, -1 - continue redelivering indefinitely)	no	MaxDeliveryAttempts
Redelivery Delay	The length of time in milliseconds to wait before a message is redelivered after a NACK	no	RedeliveryDelay
Message Counter History Day Limit	Sets the destination message counter history day limit with a value less than 0 indicating unlimited history, a 0 value disabling history and a value greater than 0 giving the history days count.	no	MessageCounterHistoryDayLimit
Maximum Queue Size	The maximum number of messages this queue can hold before they are dropped (-1 = infinite)	no	MaxSize
Full Size	The in-memory message limit, can only be set when queue is stopped	no	FullSize
Page Size	The paging size, can only be set when queue is stopped	no	PageSize
Down Cache Size	The write-cache size, can only be set when queue is stopped	no	DownCacheSize

Name	Description	Required	Internal Name
Security Configurations	This element specifies a XML fragment which describes the access control list to be used by the SecurityManager to authorize client operations against the destination. The content model is the same as for the SecurityManager SecurityConf attribute.	yes	SecurityConfig
Topic Name	Name of the queue to be used in the JMX object name.	yes	MBeanName
JNDI Binding	Binding path of this Topic in JNDI.	yes	JNDIBinding



### Note

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

## Operations

**Table 2.57. Metrics**

Name	Description
Remove All Messages	Clears all Subscriptions
List All Subscriptions	Lists all the Subscriptions.
List Durable Subscriptions	Lists all the durable subscriptions.
List Non-durable Subscriptions	Lists all the non-durable subscriptions.
List Messages by ID and Selector	List the messages for a subscription by ID and with an optional selector.
List Non-durable Messages	Lists the non-durable messages by subscription ID and an optional selector.
List Durable Messages	Lists the durable messages by subscription ID and an optional selector.

## Package Types

none

## 2.1.9. JBossMQ Service

### Overview

**Table 2.58. Overview**

Description:	The JBossMQ subsystem
--------------	-----------------------

Singleton:	yes
Plugin:	JBossAS

## Parent Resource Types

- [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

- [Section 2.1.9.1, “JMQ JMS Queue Service”](#)
- [Section 2.1.9.2, “JMQ JMS Topic Service”](#)

## Connection Properties

Table 2.59.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name		yes	name



### Note

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

## Metrics

Table 2.60. Metrics

Name	Type	Description	Internal Name
JMS Message Cache Hits	measurement	The number of cache hits to the JMS Message Cache	jboss.mq:service=MessageCache:CacheHits
JMS Message Cache Hits per Minute	measurement	The number of cache hits to the JMS Message Cache	jboss.mq:service=MessageCache:CacheHits
JMS Message Cache Misses	measurement	The number of cache misses to the JMS Message Cache	jboss.mq:service=MessageCache:CacheMisses
JMS Message Cache Misses per Minute	measurement	The number of cache misses to the JMS Message Cache	jboss.mq:service=MessageCache:CacheMisses
JMS Message Cache Current Memory Usage	measurement	The total memory currently in use by the JMS Message Cache	jboss.mq:service=MessageCache:CurrentMemoryUsage
JMS Message Cache High Memory Mark	measurement	The peak amount of memory the JMS Message Cache has actively used since server start	jboss.mq:service=MessageCache:HighMemoryMark

Name	Type	Description	Internal Name
JMS Message Cache Max Memory Mark	measurement	The maximum amount of memory the JMS Message Cache is allowed to use	jboss.mq:service=MessageCache:MaxMemoryMark
JMS Message Cache Size	measurement	The number of messages currently in the JMS Message Cache	jboss.mq:service=MessageCache:TotalCacheSize



## Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.1.9.1. JMQ JMS Queue Service

#### Overview

Table 2.61. Overview

Description:	
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

- [Section 2.1.9, “JBossMQ Service”](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.62.

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

Name	Description	Required	Internal Name
Name	The name of this queue	yes	name



### Note

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

## Metrics

**Table 2.63. Metrics**

Name	Type	Description	Internal Name
Messages in Queue	measurement	The number of undelivered messages in the queue.	QueueDepth
Receivers Count	measurement	The number of ClientConsumers waiting for a message.	ReceiversCount
Scheduled Message Count	measurement	The number of messages waiting to be scheduled	ScheduledMessageCount
In Process Message Count	measurement	The number of messages received by clients but not acknowledged (from AS 4.0.5)	InProcessMessageCount



### Note

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

## Configuration Properties

**Table 2.64.**

Name	Description	Required	Internal Name
Destination Manager	The JMX object name of the destination manager configured for the server.	yes	DestinationManager
Security Manager	The JMX object name of the security manager that is being used to validate client requests.	no	SecurityManager

Name	Description	Required	Internal Name
Expiry Destination	By default, JBossMQ silently removes expired JMS message from its destination. As of JBoss 4.0.4, expired messages can now be moved into a separate destination. ExpiryDestination indicates the javax.management.ObjectName of the expiry destination. This destination must be located on the same server and be a JBossMQ destination.	no	ExpiryDestination
JNDI Name	The location in JNDI to which the queue object will be bound. If this is not set it will be bound under the queue context using the name of the queue. This property is optional, in most cases the mbean name is used for binding purpose. See {server-config}/deploy/jms/jbossmq-destinations-service.xml for examples.	no	JNDIName
In Memory	Don't persist messages and avoid message softening when using the NullPersistenceManager	no	InMemory
Redelivery Limit	The maximum times a message is nacked before a message is sent to the Dead Letter Queue (0 - don't redeliver, n - redeliver n times, -1 - continue redelivering indefinitely)	no	RedeliveryLimit
Redelivery Delay	The length of time in milliseconds to wait before a message is redelivered after a nack	no	RedeliveryDelay

Name	Description	Required	Internal Name
Message Counter History Day Limit	Sets the destination message counter history day limit with a value less than 0 indicating unlimited history, a 0 value disabling history and a value greater than 0 giving the history days count.	no	MessageCounterHistoryDayLimit
Maximum Depth	The MaxDepth is an upper limit to the backlog of messages that can exist for a destination. If exceeded, attempts to add new messages will result in a <code>org.jboss.mq.DestinationFullException</code> . The MaxDepth can still be exceeded in a number of situations, e.g. when a message is placed back into the queue. Also transactions performing read committed processing, look at the current size of queue, ignoring any messages that may be added as a result of the current transaction or other transactions. This is because we don't want the transaction to fail during the commit phase when the message is physically added to the queue.	no	MaxDepth
Recovery Retries	Specifies the number of times uncommitted transactions are to be resolved before failing. Default 0 - zero (from JBoss-4.0.3).	no	RecoveryRetries

Name	Description	Required	Internal Name
Security Configurations	This element specifies a XML fragment which describes the access control list to be used by the SecurityManager to authorize client operations against the destination. The content model is the same as for the SecurityManager SecurityConf attribute.	yes	SecurityConf
Queue Name	Name of the queue to be used in the JMX object name.	yes	MBeanName
JNDI Binding	Binding path of this Queue in JNDI.	yes	JNDIBinding



### Note

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

## Operations

**Table 2.65. Metrics**

Name	Description
Remove All Messages	Clears all Messages in the Queue
Reset Message Counter	Clears the MessageCounter data for this Queue
Reset Message Counter History	Clears the MessageCounter history data for this Queue
List Messages by Selector	Lists the Messages in the Queue by Selector (if provided). Selector is not required.
List Scheduled Messages	Lists the Scheduled Messages by Selector (if provided). Selector is not required.
List In Process Messages	Lists the Messages in process by Selector (if provided). Selector is not required.

## Package Types

none

### 2.1.9.2. JMQ JMS Topic Service

#### Overview

**Table 2.66. Overview**

Description:	
Singleton:	no



Plugin:	JBossAS
---------	---------

## Parent Resource Types

➤ [Section 2.1.9, “JBossMQ Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.67.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this topic	yes	name



### Note

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

## Metrics

**Table 2.68. Metrics**

Name	Type	Description	Internal Name
All Message Counter	measurement	Returns the total message count for all subscriptions.	AllMessageCount
Durable Message Count	measurement	Total number of messages for all durable subscriptions.	DurableMessageCount
Non-durable Message Count	measurement	Total number of messages for all non-durable subscriptions.	NonDurableMessageCount
All Subscription Count	measurement	Number of subscriptions waiting for a message.	AllSubscriptionsCount
Durable Subscription Count	measurement	Number of durable subscriptions waiting for a message.	DurableSubscriptionsCount
Non-durable Subscription Count	measurement	Number of non-durable subscriptions waiting for a message.	NonDurableSubscriptionsCount



## Note

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

## Configuration Properties

Table 2.69.

Name	Description	Required	Internal Name
Destination Manager	The JMX object name of the destination manager configured for the server.	yes	DestinationManager
Security Manager	The JMX object name of the security manager that is being used to validate client requests.	no	SecurityManager
Expiry Destination	By default, JBossMQ silently removes expired JMS message from its destination. As of JBoss 4.0.4, expired messages can now be moved into a separate destination. ExpiryDestination indicates the javax.management.ObjectName of the expiry destination. This destination must be located on the same server and be a JBossMQ destination.	no	ExpiryDestination
JNDI Name	The location in JNDI to which the topic will be bound. If this is not set it will be bound under the topic context using the mbean name of the topic. This property is optional, in most cases the mbean name is used for binding purpose. See {server-config}/deploy/jms/jbossmq-destinations-service.xml for examples.	no	JNDIName
In Memory	Don't persist messages and avoid message softening when using the NullPersistenceManager.	no	InMemory

Name	Description	Required	Internal Name
Redelivery Limit	The maximum times a message is nacked before a message is sent to the Dead Letter Queue (0 - don't redeliver, n - redeliver n times, -1 - continue redelivering indefinitely).	no	RedeliveryLimit
Redelivery Delay	The length of time in milliseconds to wait before a message is redelivered after a nack.	no	RedeliveryDelay
Message Counter History Day Limit	Sets the destination message counter history day limit with a value less than 0 indicating unlimited history, a 0 value disabling history and a value greater than 0 giving the history days count.	no	MessageCounterHistoryDayLimit
Maximum Depth	The MaxDepth is an upper limit to the backlog of messages that can exist for a destination. If exceeded, attempts to add new messages will result in a <code>org.jboss.mq.DestinationFullException</code> . The MaxDepth can still be exceeded in a number of situations, e.g. when a message is placed back into the queue. Also transactions performing read committed processing, look at the current size of queue, ignoring any messages that may be added as a result of the current transaction or other transactions. This is because we don't want the transaction to fail during the commit phase when the message is physically added to the queue.	no	MaxDepth

Name	Description	Required	Internal Name
Recovery Retries	Specifies the number of times uncommitted transactions are to be resolved before failing. Default 0 - zero (from JBoss-4.0.3).	no	RecoveryRetries
Security Configurations	This element specifies a XML fragment which describes the access control list to be used by the SecurityManager to authorize client operations against the destination. The content model is the same as for the SecurityManager SecurityConf attribute.	yes	SecurityConf
Topic Name	Name of the queue to be used as the JMX object name.	yes	MBeanName
JNDI Binding	Binding path of this Topic in JNDI.	yes	JNDIBinding



### Note

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

## Operations

**Table 2.70. Metrics**

Name	Description
Remove All Messages	Clears all Subscriptions
List All Subscriptions	Lists all the Subscriptions.
List Durable Subscriptions	Lists all the durable subscriptions.
List Non-durable Subscriptions	Lists all the non-durable subscriptions.
Reset Message Counter	Clears the message counter data for all topic subscriptions.
Reset Message Counter History	Clears the message counter history data for this topic.
List Messages by ID and Selector	List the messages for a subscription by ID and with an optional selector.
Get Non-durable Message Count	Gets the message count for non-durable messages by client ID and subscription ID.
List Non-durable Messages	Lists the non-durable messages by client ID, subscription ID, and an optional selector.
Get Durable Message Count	Gets the message count for durable messages by client ID and subscription ID.

Name	Description
List Durable Messages	Lists the durable messages by client ID, subscription ID, and an optional selector.
Get Non-durable Scheduled Message Count	Gets the message count for non-durable scheduled messages by client ID and subscription ID.
List Non-durable Scheduled Messages	Lists the non-durable scheduled messages by client ID, subscription ID, and an optional selector.
Get Durable Scheduled Message Count	Gets the message count for durable scheduled messages by client ID and subscription ID.
List Durable Scheduled Messages	Lists the durable scheduled messages by client ID, subscription ID, and an optional selector.
Get Non-durable In-process Message Count	Gets the message count for non-durable in-process messages by client Id and subscription Id
List Non-durable In-process Messages	Lists the non-durable in-process messages by client ID, subscription ID, and an optional selector.
Get Durable In-process Message Count	Gets the message count for durable in-process messages by client ID and subscription Id
List Durable In-process Messages	Lists the durable in-process messages by client ID, subscription ID, and an optional selector.

### Package Types

none

## 2.1.10. Message Driven EJB Service

### Overview

**Table 2.71. Overview**

Description:	An EJB 1.x or 2.x Message Driven Bean
Singleton:	no
Plugin:	JBossAS

### Parent Resource Types

» [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

**Table 2.72.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this ejb	yes	name

Name	Description	Required	Internal Name
J 2ee Application		yes	j2eeApplication
Ejb Jar		yes	ejbJar



### Note

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

## Metrics

Table 2.73. Metrics

Name	Type	Description	Internal Name
Create Calls	measurement	The number of instances of this EJB 1.x or 2.x Message Driven Bean that have been created since server start	{stats.createCount.count}
Create Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Message Driven Bean that have been created since server start	{stats.createCount.count}
Remove Calls	measurement	The number of instances of this EJB 1.x or 2.x Message Driven Bean that have been removed since server start	{stats.removeCount.count}
Remove Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Message Driven Bean that have been removed since server start	{stats.removeCount.count}
Method-Ready Beans	measurement	The number of pooled instances of this EJB 1.x or 2.x Message Driven Bean in the method-ready state	{stats.messageCount.count}
Method-Ready Beans per Minute	measurement	The number of pooled instances of this EJB 1.x or 2.x Message Driven Bean in the method-ready state	{stats.messageCount.count}



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.1.11. Script Service

#### Overview

Table 2.74. Overview

Description:	provides the ability to execute a script that performs some task related to its parent JBossAS server
Singleton:	no
Plugin:	JBossAS

#### Parent Resource Types

➤ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.75.

Name	Description	Required	Internal Name
Path	the absolute path to the script file	yes	path

Name	Description	Required	Internal Name
Environment Variables	the environment variables that will be passed to the script; each variable must be on a new line and have the syntax name=value; the variable's value can contain properties with the syntax %propertyName%; the script plugin will interpolate these with the current values of the corresponding properties from the script's parent JBossAS server's connection properties	no	environmentVariables



### Note

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

## Metrics

none

## Configuration Properties

none

## Operations

Table 2.76. Metrics

Name	Description
Execute Script	execute the script; NOTE: environment variables to be passed to the script can be configured via this Script service's connection properties (under its Inventory>Connection tab)

## Package Types

none

## 2.1.12. Stateful Session EJB Service

### Overview

Table 2.77. Overview



Description:	An EJB 1.x or 2.x Stateful Session Bean
Singleton:	no
Plugin:	JBossAS

## Parent Resource Types

- ✱ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.78.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this EJB	yes	name
J 2ee Application		yes	j2eeApplication
Ejb Jar		yes	ejbJar



### Note

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

## Metrics

**Table 2.79. Metrics**

Name	Type	Description	Internal Name
Create Calls	measurement	The number of instances of this EJB 1.x or 2.x Stateful Session Bean that have been created since server start	{stats.createCount.count}
Create Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Stateful Session Bean that have been created since server start	{stats.createCount.count}
Remove Calls	measurement	The number of instances of this EJB 1.x or 2.x Stateful Session Bean that have been removed since server start	{stats.removeCount.count}

Name	Type	Description	Internal Name
Remove Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Stateful Session Bean that have been removed since server start	{stats.removeCount.count}
Method-Ready Beans	measurement	The number of pooled instances of this EJB 1.x or 2.x Stateful Session Bean in the method-ready state	{stats.methodReadyCount.current}
Passive Beans	measurement	The number of pooled instances of this EJB 1.x or 2.x Stateful Session Bean in the passivated state	{stats.passiveCount.current}
Method Invocation Time	calltime	the minimum, maximum, and average invocation times for each of the methods exposed by this EJB	MethodInvocationTime



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.1.13. Stateless Session EJB Service

### Overview

**Table 2.80. Overview**

Description:	An EJB 1.x or 2.x Stateless Session Bean
Singleton:	no
Plugin:	JBossAS

## Parent Resource Types

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.81.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The name of this ejb	yes	name
J 2ee Application		yes	j2eeApplication
Ejb Jar		yes	ejbJar



### Note

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

## Metrics

**Table 2.82. Metrics**

Name	Type	Description	Internal Name
Create Calls	measurement	The number of instances of this EJB 1.x or 2.x Stateless Session Bean that have been created since server start	{stats.createCount.count}
Create Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Stateless Session Bean that have been created since server start	{stats.createCount.count}
Remove Calls	measurement	The number of instances of this EJB 1.x or 2.x Stateless Session Bean that have been removed since server start	{stats.removeCount.count}
Remove Calls per Minute	measurement	The number of instances of this EJB 1.x or 2.x Stateless Session Bean that have been removed since server start	{stats.removeCount.count}
Method-Ready Beans	measurement	The number of pooled instances of this EJB 1.x or 2.x Stateless Session Bean in the method-ready state	{stats.methodReadyCount.current}

Name	Type	Description	Internal Name
Pool Size	measurement	The total number of currently pooled instances of this EJB 1.x or 2.x Stateless Session Bean	{{jboss.j2ee:jndiName=%name%,plugin=pool,service=EJB}CurrentSize}
Max Pool Size	measurement	The maximum number of instances that are allowed to be pooled	{{jboss.j2ee:jndiName=%name%,plugin=pool,service=EJB}MaxSize}
Method Invocation Time	calltime	the minimum, maximum, and average invocation times for each of the methods exposed by this EJB	MethodInvocationTime



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.1.14. Web Application (WAR) Service

### Overview

Table 2.83. Overview

Description:	Web Application
Singleton:	no
Plugin:	JBossAS

## Parent Resource Types

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

Table 2.84.

Name	Description	Required	Internal Name
Name	The name of this WAR	yes	name
Filename		yes	filename
Object Name		yes	objectName
Context Root	this WAR's context root - used as a unique path prefix for URLs corresponding to this WAR	no	contextRoot
Virtual Host	The (virtual) host that this application is running on. If no virtual host is set, this defaults to 'localhost'	no	vHost
Jboss Web Name	the objectName for the jboss.web WebModule that will be used to fire operations	no	jbossWebName
Response Time Log File	the full path to the log file containing response-time stats for this webapp. The location is determined by the RtFilter and is usually something like ...server/.../log/rt/appname_rt.log	no	responseTimeLogFile
Response Time Url Excludes	a space-delimited list of regular expressions specifying URLs that should be excluded from response-time stats collection	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions that should be applied to all URLs for which response-time stats are collected (e.g. <code> ^/dept/finance.* /dept/finance/*</code> )	no	responseTimeUrlTransforms
Name Template		yes	nameTemplate
Extension		yes	extension
Description Template		yes	descriptionTemplate



### Note

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

## Metrics

**Table 2.85. Metrics**

Name	Type	Description	Internal Name
Path	trait	the absolute path of this WAR file or directory	Application.path
Exploded?	trait	whether this WAR is deployed exploded (i.e. as a directory)	Application.exploded
Context Root	trait	this WAR's context root - used as a unique path prefix for URLs corresponding to this WAR	ContextRoot
HTTP Response Time	calltime	the minimum, maximum, and average response times for HTTP requests serviced by this webapp	ResponseTime
Min. Servlet Resp. Time	measurement	Minimum response time of a servlet	Servlet.MinResponseTime
Avg. Servlet Resp. Time	measurement	Average response time of a servlet	Servlet.AvgResponseTime
Max. Servlet Resp. Time	measurement	Maximum response time of a servlet	Servlet.MaxResponseTime
Total processing time	measurement	Total processing time of the webapp	Servlet.TotalTime
Total processing time per Minute	measurement	Total processing time of the webapp	Servlet.TotalTime
Requests served	measurement	Number of requests served by servlets	Servlet.NumRequests
Requests served per Minute	measurement	Number of requests served by servlets	Servlet.NumRequests
Errors while processing	measurement	Number of errors while processing	Servlet.NumErrors
Errors while processing per Minute	measurement	Number of errors while processing	Servlet.NumErrors
Currently Active Sessions	measurement	Number active sessions for the webapp right now	Session.activeSessions
Maximum number of Active Sessions	measurement	Maximum number of active sessions for the webapp	Session.maxActive
Sessions created	measurement	Number of sessions created for the webapp	Session.sessionCounter
Sessions created per Minute	measurement	Number of sessions created for the webapp	Session.sessionCounter
Expired Sessions	measurement	Number of expired sessions for the webapp	Session.expiredSessions
Expired Sessions per Minute	measurement	Number of expired sessions for the webapp	Session.expiredSessions
Rejected Sessions	measurement	Number of sessions rejected for the webapp	Session.rejectedSessions

Name	Type	Description	Internal Name
Rejected Sessions per Minute	measurement	Number of sessions rejected for the webapp	Session.rejectedSessions
Session Average alive time	measurement	Average alive time of a Sessions	Session.sessionAverageAliveTime
Max Session alive time	measurement	Maximum alive time of a Sessions	Session.sessionMaxAliveTime
Vhost	trait	Virtual hosts this app runs on	Vhost.name



### Note

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

## Configuration Properties

none

## Operations

Table 2.86. Metrics

Name	Description
Start	starts this webapp; NOTE: this operation is *not* supported for JBossAS versions prior to 4.0.4.GA (see <a href="http://jira.jboss.org/jira/browse/JBAS-3006">http://jira.jboss.org/jira/browse/JBAS-3006</a> )
Stop	stops this webapp; NOTE: this operation is *not* supported for JBossAS versions prior to 4.0.4.GA (see <a href="http://jira.jboss.org/jira/browse/JBAS-3006">http://jira.jboss.org/jira/browse/JBAS-3006</a> )
Reload	reloads this webapp; NOTE: if the webapp is not in the started state, this operation will fail
Revert	Tries to revert this web application from a saved backup in the same directory and with a name ending in .bak

## Package Types

Table 2.87. Package Types

Name	Category	Description
WAR File	Deployable	

## 2.2. JBossAS 5.x Server and JBoss EAP 5.x

### Overview

Table 2.88. Overview

Description:	JBoss Application Server (AS) 5.x or 6.x instance and Enterprise Application Platform (EAP), Enterprise SOA Platform (SOA-P), or Enterprise Web Platform (EWP) 5.x instance
Singleton:	no
Plugin:	JBossAS5

## Parent Resource Types

- ✦ [Chapter 1, \*Managed Platforms\*](#)

## Child Resource Types

- ✦ [Section 2.2.1, “EJB2 JAR Service”](#)
- ✦ [Section 2.2.2, “EJB3 JAR Service”](#)
- ✦ [Section 2.2.3, “Embedded EJB2 JAR Service”](#)
- ✦ [Section 2.2.4, “Embedded EJB3 JAR Service”](#)
- ✦ [Section 2.2.5, “Embedded Resource Adapter Archive \(RAR\) Service”](#)
- ✦ [Section 2.2.6, “Embedded Web Application \(WAR\) Service”](#)
- ✦ [Section 2.2.7, “Enterprise Application \(EAR\) Service”](#)
- ✦ [Section 2.2.8, “JBoss Messaging Service”](#)
- ✦ [Section 2.2.9, “JBoss Web Service”](#)
- ✦ [Section 2.2.10, “Local Tx Datasource Service”](#)
- ✦ [Section 2.2.11, “No Tx ConnectionFactory Service”](#)
- ✦ [Section 2.2.12, “No Tx Datasource Service”](#)
- ✦ [Section 2.2.13, “Resource Adapter Archive \(RAR\) Service”](#)
- ✦ [Section 2.2.14, “Script Service”](#)
- ✦ [Section 2.2.15, “Service Binding Manager Service”](#)
- ✦ [Section 2.2.16, “Tx ConnectionFactory Service”](#)
- ✦ [Section 2.2.17, “Web Application \(WAR\) Service”](#)
- ✦ [Section 2.2.18, “XA Datasource Service”](#)

## Autodiscovery Process Scans

**Table 2.89. Metrics**

Name	Query
jbossas	process basename match=^java.*,arg org.jboss.Main match=.*



## Connection Properties

Table 2.90.

Name	Description	Required	Internal Name
Naming Provider URL	The JBoss Naming Provider (JNP) URL with which to connect to the JBoss AS or EAP instance (e.g. <code>jnp://127.0.0.1:1099</code> ).	yes	<code>namingURL</code>
Principal	The name of the principal (i.e. user) to authenticate.	no	<code>principal</code>
Credentials	The credentials (i.e. password) that should be used to authenticate the principal.	no	<code>credentials</code>
JBoss Home Directory	The absolute path to the directory where JBoss AS or EAP is installed (e.g. <code>/opt/jboss-5.1.0.GA</code> ).	yes	<code>homeDir</code>
Server Home Dir	The path to the configuration directory under which this instance operates (e.g. <code>/opt/jboss-5.2.0.GA/server/default</code> ); if the path is not absolute, then it will be resolved relative to <code>{homeDir}</code> .	yes	<code>serverHomeDir</code>
Server Name	The name of the server configuration (e.g. <code>minimal</code> , <code>default</code> , or <code>all</code> ); if not specified, it will default to the last path component of <code>{serverHomeDir}</code> .	no	<code>serverName</code>
Client Url	The URL of the server's client JAR library directory; if not specified, it will default to <code>{homeDir}/client</code> .	no	<code>clientUrl</code>
Lib Url	The URL of the server's main JAR library directory; if not specified, it will default to <code>{homeDir}/lib</code> .	no	<code>libUrl</code>

Name	Description	Required	Internal Name
Common Lib Url	The URL of the server's common JAR library directory; if not specified, it will default to {homeDir}/common/lib.	no	commonLibUrl
Script Prefix	A prefix applied to script execution commands; this prefix is applied verbatim. The full path of the executable is required (e.g. /usr/bin/sudo). For applicable platforms, this is typically a sudo command, so a sudo user must be configured appropriately for the specified command. Ignored if not set.	no	scriptPrefix
Start Script	The path to the script used by the 'Start' operation to start this JBossAS server (e.g. /opt/jboss-5.2.0.GA/bin/run.sh); if the path is not absolute, then it will be resolved relative to {jbossHomeDir}; defaults to 'bin/run.sh' on UNIX or 'bin\run.bat' on Windows.	no	startScript
Shutdown Script	The path to the script used by the Shut Down operation to shut down this JBossAS server (e.g. /opt/jboss-5.2.0.GA/bin/shutdown.sh); if the path is not absolute, then it will be resolved relative to {jbossHomeDir}; defaults to 'bin/shutdown.sh' on UNIX or 'bin\shutdown.bat' on Windows.	no	shutdownScript
Shutdown Method	The method used to execute the Shut Down operation; defaults to 'JMX MBean'.	no	shutdownMethod

Name	Description	Required	Internal Name
Bind Address	The host or IP address that all application server services should listen on (e.g. 10.11.14.233 or foo.example.com); specify 0.0.0.0 to tell the application server to bind to all available network interfaces; defaults to '127.0.0.1'.	no	bindAddress
Java Home	The absolute path to a JRE or JDK installation directory containing the JVM that should be used to start and shutdown this JBoss AS server; this property must be set in order for the Start operation to work, or for the Shutdown operation to work when the shutdown method is set to 'shutdown script'.	no	javaHome
Start Wait Max	The time, in minutes, (e.g. 1 or 8) that must elapse before the server is considered to have failed to start up. The default is 5 minutes.	no	startWaitMax
Stop Wait Max	The time, in minutes, (e.g. 1 or 8) that must elapse before the server is considered to have failed to stop. The default is 2.5 minutes.	no	stopWaitMax
Shutdown MBean Name	Name of the MBean to use when shutting down this server through JMX.	yes	shutdownMBeanName
Shutdown MBean Operation	Name of the operation to invoke when shutting down this server through JMX. Note that only operations with no parameter or with one int parameter are supported. If the operation requires an int parameter, '0' will be supplied.	yes	shutdownMBeanOperation

Name	Description	Required	Internal Name
Availability Check Period	The amount of time, in seconds, that must elapse between availability checks to see if the server is up. If set, the availability checks will be performed asynchronously thus allowing slow-responding servers to avoid being falsely reported as down.	no	availabilityCheckPeriod
JBoss AS JVM Name	The name of the JBoss AS JVM resource.	no	childJmxServerName
Log Event Sources		yes	logEventSources



### Note

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

## Metrics

Table 2.91. Metrics

Name	Type	Description	Internal Name
Cluster Partition Name	trait	the name of the cluster partition this server belongs to	MCBean ServerConfig * partitionName
Server Name	trait	the name of the active profile (i.e. configuration set) this server is using	MCBean ServerConfig * serverName
Server Home Dir	trait	the full path of the configuration set directory this server is using (e.g. /opt/jboss-5.1.0.CR1/server/default)	MCBean ServerConfig * serverHomeDir
Version Name	trait	the code name for this app server's version (AS 5.0 = Morpheus, AS 5.1 = The Oracle, AS 6.x = Neo)	MCBean MCServer * versionName
Build Date	trait	the date this app server was built	MCBean MCServer * buildDate
Start Date	trait	the date and time this app server instance was started	MCBean MCServer * startDate
Active Thread Count	measurement	The current number of active threads for this app server instance	MCBean ServerInfo * activeThreadCount

Name	Type	Description	Internal Name
Active Thread Group Count	measurement	The current number of active thread groups for this app server instance	MCBean ServerInfo * activeThreadGroupCount
JVM Free Memory	measurement	An approximation of the total amount of memory currently available in the app server JVM for future allocated objects, measured in bytes	MCBean ServerInfo * freeMemory
JVM Max Memory	measurement	The maximum amount of memory that the app server JVM will attempt to use, measured in bytes; if there is no inherent limit then the value Long.MAX_VALUE will be returned	MCBean ServerInfo * maxMemory
JVM Total Memory	measurement	The total amount of memory currently available in the app server JVM for current and future objects, measured in bytes	MCBean ServerInfo * totalMemory
Total Transactions	measurement	Total number of transactions since last restart	MCBean JTA * transactionCount
Total Transactions per Minute	measurement	Total number of transactions since last restart	MCBean JTA * transactionCount
Transactions Committed	measurement	Number of transactions committed since last restart	MCBean JTA * commitCount
Transactions Committed per Minute	measurement	Number of transactions committed since last restart	MCBean JTA * commitCount
Transactions Rolled Back	measurement	Number of transactions rolled back since last restart	MCBean JTA * rollbackCount
Transactions Rolled Back per Minute	measurement	Number of transactions rolled back since last restart	MCBean JTA * rollbackCount



### Note

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

## Configuration Properties

none

## Operations

**Table 2.92. Metrics**

Name	Description
Start	Start this application server. The script used is specified in the Operations group of connection properties. This operation will fail if the server is already started.
Shut Down	Shut down this application server via script or JMX, depending on the settings in the Operations and Advanced groups of connection properties. This operation will fail if the server is already shut down.
Restart	Shut down (if started) and then start this application server.

## Package Types

**Table 2.93. Package Types**

Name	Category	Description
Cumulative Patch	Deployable	Automatically installable application server patches
JAR Library	Deployable	Library Jar files deployed in JBoss AS

### 2.2.1. EJB2 JAR Service

#### Overview

**Table 2.94. Overview**

Description:	a standalone EJB 2.x application
Singleton:	no
Plugin:	JBossAS5

#### Parent Resource Types

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

#### Child Resource Types

- ✦ [Section 2.2.1.1, “EJB2 Entity Bean Service”](#)
- ✦ [Section 2.2.1.2, “EJB2 Message-Driven Bean Service”](#)
- ✦ [Section 2.2.1.3, “EJB2 Stateful Session Bean Service”](#)
- ✦ [Section 2.2.1.4, “EJB2 Stateless Session Bean Service”](#)

#### Connection Properties

Table 2.95.

Name	Description	Required	Internal Name
Deployment Name	the name of this EJB JAR	yes	deploymentName
Filename		yes	filename
Extension		yes	extension
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName



### Note

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

## Metrics

Table 2.96. Metrics

Name	Type	Description	Internal Name
Path	trait	the absolute path of this EJB JAR file or directory	custom.path
Exploded?	trait	whether this EJB JAR is deployed exploded (i.e. as a directory)	custom.exploded



### Note

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

## Configuration Properties

none

## Operations

Table 2.97. Metrics

Name	Description
Start	starts this EJB JAR
Stop	stops this EJB JAR
Restart	stops and then restarts this EJB JAR

## Package Types

**Table 2.98. Package Types**

Name	Category	Description
EJB JAR File	Deployable	

### 2.2.1.1. EJB2 Entity Bean Service

#### Overview

**Table 2.99. Overview**

Description:	An EJB2 Entity Bean
Singleton:	no
Plugin:	JBossAS5

#### Parent Resource Types

- ✱ [Section 2.2.1, "EJB2 JAR Service"](#)

#### Child Resource Types

none

#### Connection Properties

**Table 2.100.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName



#### Note

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

#### Metrics

**Table 2.101. Metrics**

Name	Type	Description	Internal Name
Create Count	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount



Name	Type	Description	Internal Name
Create Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Remove Count	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Remove Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Cache Size	measurement	Cache Size	CacheSize



### Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.2.1.2. EJB2 Message-Driven Bean Service

### Overview

**Table 2.102. Overview**

Description:	An EJB2 Message Driven Bean
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.2.1, “EJB2 JAR Service”](#)

### Child Resource Types

none

## Connection Properties

**Table 2.103.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName



### Note

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

## Metrics

**Table 2.104. Metrics**

Name	Type	Description	Internal Name
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Message Count	measurement	The number of messages sent/received	MessageCount
Message Count per Minute	measurement	The number of messages sent/received	MessageCount



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.2.1.3. EJB2 Stateful Session Bean Service

#### Overview

**Table 2.105. Overview**

Description:	An EJB2 Stateful Session Bean
Singleton:	no
Plugin:	JBossAS5

**Parent Resource Types**

- » [Section 2.2.1, "EJB2 JAR Service"](#)

**Child Resource Types**

none

**Connection Properties****Table 2.106.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats Property Name		yes	invocationStatsProperty Name

**Note**

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

**Metrics****Table 2.107. Metrics**

Name	Type	Description	Internal Name
Create Count	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Create Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Remove Count	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount

Name	Type	Description	Internal Name
Remove Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime
Passive Beans	measurement	The count of beans in the passivated state	PassivatedCount



### Note

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

### Configuration Properties

none

### Operations

**Table 2.108. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

### Package Types

none

### 2.2.1.4. EJB2 Stateless Session Bean Service

#### Overview

**Table 2.109. Overview**

Description:	An EJB2 Stateless Session Bean
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.2.1, "EJB2 JAR Service"](#)

### Child Resource Types

none

**Connection Properties****Table 2.110.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats Property Name		yes	invocationStatsPropertyName

**Note**

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

**Metrics****Table 2.111. Metrics**

Name	Type	Description	Internal Name
Create Count	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Create Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Remove Count	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Remove Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime

**Note**

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

**Configuration Properties**

none

**Operations****Table 2.112. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

**Package Types**

none

**2.2.2. EJB3 JAR Service****Overview****Table 2.113. Overview**

Description:	a standalone EJB 3.x application
Singleton:	no
Plugin:	JBossAS5

**Parent Resource Types**

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

**Child Resource Types**

- » [Section 2.2.2.1, “EJB3 Message-Driven Bean Service”](#)
- » [Section 2.2.2.2, “EJB3 Stateful Session Bean Service”](#)
- » [Section 2.2.2.3, “EJB3 Stateless Session Bean Service”](#)

**Connection Properties****Table 2.114.**

Name	Description	Required	Internal Name
Deployment Name	the name of this EJB JAR	yes	deploymentName
Filename		yes	filename
Extension		yes	extension
Description Template		yes	descriptionTemplate

Name	Description	Required	Internal Name
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName



### Note

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

## Metrics

Table 2.115. Metrics

Name	Type	Description	Internal Name
Path	trait	the absolute path of this EJB JAR file or directory	custom.path
Exploded?	trait	whether this EJB JAR is deployed exploded (i.e. as a directory)	custom.exploded



### Note

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

## Configuration Properties

none

## Operations

Table 2.116. Metrics

Name	Description
Start	starts this EJB JAR
Stop	stops this EJB JAR
Restart	stops and then restarts this EJB JAR

## Package Types

Table 2.117. Package Types

Name	Category	Description
EJB JAR File	Deployable	

### 2.2.2.1. EJB3 Message-Driven Bean Service

#### Overview

**Table 2.118. Overview**

Description:	An EJB3 Message-Driven Bean (MDB)
Singleton:	no
Plugin:	JBossAS5

#### Parent Resource Types

- [Section 2.2.2, "EJB3 JAR Service"](#)

#### Child Resource Types

none

#### Connection Properties

**Table 2.119.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats Property Name		yes	invocationStatsPropertyName



#### Note

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

#### Metrics

**Table 2.120. Metrics**

Name	Type	Description	Internal Name
EJB Name	trait	the name of this EJB	name
Minimum Pool Size	measurement	Minimum Pool Size	minPoolSize
Maximum Pool Size	measurement	Maximum Pool Size	maxPoolSize
Maximum number of Messages	measurement	Maximum number of Messages	maxMessages



**Note**

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

**Configuration Properties**

none

**Operations****Table 2.121. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

**Package Types**

none

**2.2.2.2. EJB3 Stateful Session Bean Service****Overview****Table 2.122. Overview**

Description:	An EJB3 Stateful Session Bean (SFSB)
Singleton:	no
Plugin:	JBossAS5

**Parent Resource Types**

- » [Section 2.2.2, "EJB3 JAR Service"](#)

**Child Resource Types**

none

**Connection Properties****Table 2.123.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats		yes	invocationStatsProperty
Property Name			Name



## Note

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

## Metrics

**Table 2.124. Metrics**

Name	Type	Description	Internal Name
EJB Name	trait	the name of this EJB	name
Available Count	measurement	The number of pooled instances of this EJB3 Session Bean in the method-ready state	availableCount
Create Count	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount
Create Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount
Current Count	measurement	The total number of currently pooled instances of this EJB3 Session Bean	currentSize
Max Size	measurement	The maximum number of instances that are allowed to be pooled	maxSize
Remove Count	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Remove Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime
Cache Size	measurement	Cache Size	cacheSize
Passivated Count	measurement	Passivated Count	passivatedCount
Total Size	measurement	Total Size	totalSize



## Note

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

### Configuration Properties

none

### Operations

**Table 2.125. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

### Package Types

none

### 2.2.2.3. EJB3 Stateless Session Bean Service

#### Overview

**Table 2.126. Overview**

Description:	An EJB3 Stateless Session Bean (SLSB)
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.2.2, "EJB3 JAR Service"](#)

### Child Resource Types

none

### Connection Properties

**Table 2.127.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats		yes	invocationStatsProperty
Property Name			Name



## Note

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

## Metrics

**Table 2.128. Metrics**

Name	Type	Description	Internal Name
EJB Name	trait	the name of this EJB	name
Available Count	measurement	The number of pooled instances of this EJB3 Session Bean in the method-ready state	availableCount
Create Count	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount
Create Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount
Current Count	measurement	The total number of currently pooled instances of this EJB3 Session Bean	currentSize
Max Size	measurement	The maximum number of instances that are allowed to be pooled	maxSize
Remove Count	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Remove Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime

**Note**

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

**Configuration Properties**

none

**Operations****Table 2.129. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

**Package Types**

none

**2.2.3. Embedded EJB2 JAR Service****Overview****Table 2.130. Overview**

Description:	an embedded EJB 2.x application
Singleton:	no
Plugin:	JBossAS5

**Parent Resource Types**

- [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

**Child Resource Types**

- [Section 2.2.3.1, “EJB2 Entity Bean \(Embedded\) Service”](#)
- [Section 2.2.3.2, “EJB2 Message-Driven Bean \(Embedded\) Service”](#)
- [Section 2.2.3.3, “EJB2 Stateful Session Bean \(Embedded\) Service”](#)
- [Section 2.2.3.4, “EJB2 Stateless Session Bean \(Embedded\) Service”](#)

**Connection Properties****Table 2.131.**

Name	Description	Required	Internal Name
Deployment Name	the name of this EJB JAR	yes	deploymentName
Filename		yes	filename

Name	Description	Required	Internal Name
Extension		yes	extension
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName



### Note

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

## Metrics

Table 2.132. Metrics

Name	Type	Description	Internal Name
Parent	trait	the name of this EJB JAR's parent deployment	custom.parent



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.2.3.1. EJB2 Entity Bean (Embedded) Service

#### Overview

Table 2.133. Overview

Description:	An EJB2 Entity Bean
Singleton:	no

Plugin:	JBossAS5
---------	----------

## Parent Resource Types

➤ [Section 2.2.3, “Embedded EJB2 JAR Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.134.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName



### Note

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

## Metrics

**Table 2.135. Metrics**

Name	Type	Description	Internal Name
Create Count	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Create Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Remove Count	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Remove Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize

Name	Type	Description	Internal Name
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Cache Size	measurement	Cache Size	CacheSize



### Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.2.3.2. EJB2 Message-Driven Bean (Embedded) Service

### Overview

**Table 2.136. Overview**

Description:	An EJB2 Message Driven Bean
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- [Section 2.2.3, "Embedded EJB2 JAR Service"](#)

### Child Resource Types

none

### Connection Properties

**Table 2.137.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName



**Note**

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

**Metrics****Table 2.138. Metrics**

Name	Type	Description	Internal Name
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Message Count	measurement	The number of messages sent/received	MessageCount
Message Count per Minute	measurement	The number of messages sent/received	MessageCount

**Note**

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

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**2.2.3.3. EJB2 Stateful Session Bean (Embedded) Service****Overview****Table 2.139. Overview**

Description:	An EJB2 Stateful Session Bean
Singleton:	no
Plugin:	JBossAS5

**Parent Resource Types**

- ✦ [Section 2.2.3, "Embedded EJB2 JAR Service"](#)

**Child Resource Types**

none

**Connection Properties****Table 2.140.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats Property Name		yes	invocationStatsPropertyName

**Note**

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

**Metrics****Table 2.141. Metrics**

Name	Type	Description	Internal Name
Create Count	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Create Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Remove Count	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Remove Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime

Name	Type	Description	Internal Name
Passive Beans	measurement	The count of beans in the passivated state	PassivatedCount



### Note

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

### Configuration Properties

none

### Operations

**Table 2.142. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

### Package Types

none

## 2.2.3.4. EJB2 Stateless Session Bean (Embedded) Service

### Overview

**Table 2.143. Overview**

Description:	An EJB2 Stateless Session Bean
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.2.3, “Embedded EJB2 JAR Service”](#)

### Child Resource Types

none

### Connection Properties

**Table 2.144.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats		yes	invocationStatsProperty
Property Name			Name

**Note**

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

**Metrics****Table 2.145. Metrics**

Name	Type	Description	Internal Name
Create Count	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Create Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been created since server start.	CreateCount
Remove Count	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Remove Count per Minute	measurement	The number of instances of this EJB2 Session Bean that have been removed since server start.	RemoveCount
Current Pool Size	measurement	The number of beans in the pool.	CurrentPoolSize
Max Pool Size	measurement	The maximum pool size.	MaxPoolSize
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime

**Note**

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

**Configuration Properties**

none

**Operations****Table 2.146. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

### Package Types

none

## 2.2.4. Embedded EJB3 JAR Service

### Overview

**Table 2.147. Overview**

Description:	an embedded EJB 3.x application
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

- [Section 2.2.4.1, “EJB3 Message-Driven Bean \(Embedded\) Service”](#)
- [Section 2.2.4.2, “EJB3 Stateful Session Bean \(Embedded\) Service”](#)
- [Section 2.2.4.3, “EJB3 Stateless Session Bean \(Embedded\) Service”](#)

### Connection Properties

**Table 2.148.**

Name	Description	Required	Internal Name
Deployment Name	the name of this EJB JAR	yes	deploymentName
Filename		yes	filename
Extension		yes	extension
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName

**Note**

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

**Metrics****Table 2.149. Metrics**

Name	Type	Description	Internal Name
Parent	trait	the name of this EJB JAR's parent deployment	custom.parent

**Note**

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

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**2.2.4.1. EJB3 Message-Driven Bean (Embedded) Service****Overview****Table 2.150. Overview**

Description:	An EJB3 Message-Driven Bean (MDB)
Singleton:	no
Plugin:	JBossAS5

**Parent Resource Types**

➤ [Section 2.2.4, "Embedded EJB3 JAR Service"](#)

**Child Resource Types**

none

**Connection Properties**

Table 2.151.

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats Property Name		yes	invocationStatsProperty Name



### Note

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

## Metrics

Table 2.152. Metrics

Name	Type	Description	Internal Name
EJB Name	trait	the name of this EJB	name
Minimum Pool Size	measurement	Minimum Pool Size	minPoolSize
Maximum Pool Size	measurement	Maximum Pool Size	maxPoolSize
Maximum number of Messages	measurement	Maximum number of Messages	maxMessages



### Note

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

## Configuration Properties

none

## Operations

Table 2.153. Metrics

Name	Description
View Method Statistics	Display detailed method invocation statistics.

## Package Types

none

## 2.2.4.2. EJB3 Stateful Session Bean (Embedded) Service

### Overview

**Table 2.154. Overview**

Description:	An EJB3 Stateful Session Bean (SFSB)
Singleton:	no
Plugin:	JBossAS5

**Parent Resource Types**

- » [Section 2.2.4, “Embedded EJB3 JAR Service”](#)

**Child Resource Types**

none

**Connection Properties****Table 2.155.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats Property Name		yes	invocationStatsProperty Name

**Note**

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

**Metrics****Table 2.156. Metrics**

Name	Type	Description	Internal Name
EJB Name	trait	the name of this EJB	name
Available Count	measurement	The number of pooled instances of this EJB3 Session Bean in the method-ready state	availableCount
Create Count	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount
Create Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount



Name	Type	Description	Internal Name
Current Count	measurement	The total number of currently pooled instances of this EJB3 Session Bean	currentSize
Max Size	measurement	The maximum number of instances that are allowed to be pooled	maxSize
Remove Count	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Remove Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime
Cache Size	measurement	Cache Size	cacheSize
Passivated Count	measurement	Passivated Count	passivatedCount
Total Size	measurement	Total Size	totalSize



### Note

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

### Configuration Properties

none

### Operations

**Table 2.157. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

### Package Types

none

### 2.2.4.3. EJB3 Stateless Session Bean (Embedded) Service

#### Overview

**Table 2.158. Overview**

Description:	An EJB3 Stateless Session Bean (SLSB)
Singleton:	no
Plugin:	JBossAS5

## Parent Resource Types

- » [Section 2.2.4, “Embedded EJB3 JAR Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.159.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Invocation Stats Property Name		yes	invocationStatsPropertyName



### Note

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

## Metrics

**Table 2.160. Metrics**

Name	Type	Description	Internal Name
EJB Name	trait	the name of this EJB	name
Available Count	measurement	The number of pooled instances of this EJB3 Session Bean in the method-ready state	availableCount
Create Count	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount
Create Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been created since server start	createCount

Name	Type	Description	Internal Name
Current Count	measurement	The total number of currently pooled instances of this EJB3 Session Bean	currentSize
Max Size	measurement	The maximum number of instances that are allowed to be pooled	maxSize
Remove Count	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Remove Count per Minute	measurement	The number of instances of this EJB3 Session Bean that have been removed since server start	removeCount
Method Invocation Time	calltime	The minimum, maximum, and average invocation times for each of the methods exposed by this EJB	methodInvocationTime



### Note

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

### Configuration Properties

none

### Operations

**Table 2.161. Metrics**

Name	Description
View Method Statistics	Display detailed method invocation statistics.

### Package Types

none

## 2.2.5. Embedded Resource Adapter Archive (RAR) Service

### Overview

**Table 2.162. Overview**

Description:	an embedded JCA resource adapter archive (RAR)
Singleton:	no

Plugin:	JBossAS5
---------	----------

## Parent Resource Types

» [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.163.**

Name	Description	Required	Internal Name
Deployment Name	the name of this RAR	yes	deploymentName
Filename		yes	filename
Extension		yes	extension
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName



### Note

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

## Metrics

**Table 2.164. Metrics**

Name	Type	Description	Internal Name
Parent	trait	the name of this RAR's parent deployment	custom.parent



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.2.6. Embedded Web Application (WAR) Service

#### Overview

**Table 2.165. Overview**

Description:	an embedded web application (WAR)
Singleton:	no
Plugin:	JBossAS5

#### Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

#### Child Resource Types

- » [Section 2.2.6.1, “Embedded Web Application Context Service”](#)

#### Connection Properties

**Table 2.166.**

Name	Description	Required	Internal Name
Deployment Name	the name of this WAR	yes	deploymentName
Context Path	this WAR's context path (e.g. /admin-console)	yes	contextPath
Response Time Log File	the full path to the log file containing response-time stats for this webapp	no	responseTimeLogFile
Response Time Url Excludes	a space-delimited list of regular expressions specifying URLs that should be excluded from response-time stats collection	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions that should be applied to all URLs for which response-time stats are collected (e.g. <code> ^/dept/finance/.*/dept/finance/* </code> )	no	responseTimeUrlTransforms
Extension		yes	extension

Name	Description	Required	Internal Name
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName
Embedded		yes	embedded



### Note

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

## Metrics

Table 2.167. Metrics

Name	Type	Description	Internal Name
Parent	trait	the name of this WAR's parent deployment	custom.parent
Context Root	trait	this context root of this WAR (e.g. jmx-console) - used as a unique path prefix for URLs corresponding to this WAR	contextRoot
Virtual Hosts	trait	the virtual host(s) to which this WAR is deployed	virtualHosts



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.2.6.1. Embedded Web Application Context Service

### Overview

**Table 2.168. Overview**

Description:	a web application context
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- ✱ [Section 2.2.6, “Embedded Web Application \(WAR\) Service”](#)

### Child Resource Types

none

### Connection Properties

**Table 2.169.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Response Time Log File	the full path to the log file containing response-time stats for this webapp	no	responseTimeLogFile
Response Time Url Excludes	a space-delimited list of regular expressions specifying URLs that should be excluded from response-time stats collection	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions that should be applied to all URLs for which response-time stats are collected (e.g. <code> ^/dept/finance/.*/dept/finance/* </code> )	no	responseTimeUrlTransforms
Virtual Host	this WAR's virtual host (e.g. localhost)	yes	virtualHost



### Note

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

## Metrics

Table 2.170. Metrics

Name	Type	Description	Internal Name
Clustered	trait	True if this web application context is clustered	clustered
Virtual Host	trait	the virtual host with which this context is associated	virtualHost
Response Time	calltime	the minimum, maximum, and average response times for requests serviced by this webapp	responseTime
Currently Active Sessions	measurement	the number of sessions that are currently active for this WAR	activeSessions
Maximum Active Sessions	measurement	the maximum number of sessions that have been active for this WAR	maxActive
Created Sessions	measurement	the number of sessions created for this WAR	sessionCounter
Created Sessions per Minute	measurement	the number of sessions created for this WAR	sessionCounter
Expired Sessions	measurement	the number of expired sessions for this WAR	expiredSessions
Expired Sessions per Minute	measurement	the number of expired sessions for this WAR	expiredSessions
Rejected Sessions	measurement	the number of sessions rejected for this WAR	rejectedSessions
Rejected Sessions per Minute	measurement	the number of sessions rejected for this WAR	rejectedSessions
Average Session Alive Time	measurement	the average alive time of sessions for this WAR	sessionAverageAliveTime
Max Session Alive Time	measurement	the maximum alive time of sessions for this WAR	sessionMaxAliveTime
Minimum Response Time	measurement	the minimum response time for requests serviced by this WAR	Servlet.minimumResponseTime
Average Response Time	measurement	the average response time for requests serviced by this WAR	Servlet.averageResponseTime
Maximum Response Time	measurement	the maximum response time for requests serviced by this WAR	Servlet.maximumResponseTime
Total Response Time	measurement	the total response time for requests serviced by this WAR	Servlet.totalResponseTime
Total Response Time per Minute	measurement	the total response time for requests serviced by this WAR	Servlet.totalResponseTime



Name	Type	Description	Internal Name
Number of Requests Served	measurement	the number of requests serviced by this WAR	Servlet.requestCount
Number of Requests Served per Minute	measurement	the number of requests serviced by this WAR	Servlet.requestCount
Number of Error Responses	measurement	the number of error responses sent by this WAR	Servlet.errorCount
Number of Error Responses per Minute	measurement	the number of error responses sent by this WAR	Servlet.errorCount



## Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.2.7. Enterprise Application (EAR) Service

### Overview

Table 2.171. Overview

Description:	JEE enterprise application (EAR)
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

✱ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

Table 2.172.

Name	Description	Required	Internal Name
Deployment Name	The name of this EAR	yes	deploymentName
Filename		yes	filename
Extension		yes	extension
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName



### Note

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

## Metrics

Table 2.173. Metrics

Name	Type	Description	Internal Name
Path	trait	the absolute path of this EAR file or directory	custom.path
Exploded?	trait	whether this EAR is deployed exploded (i.e. as a directory)	custom.exploded



### Note

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

## Configuration Properties

none

## Operations

Table 2.174. Metrics

Name	Description
Start	starts this EAR
Stop	stops this EAR
Restart	stops and then restarts this EAR

## Package Types

Table 2.175. Package Types

Name	Category	Description
EAR File	Deployable	

## 2.2.8. JBoss Messaging Service

### Overview

Table 2.176. Overview

Description:	the JBoss Messaging JMS provider
Singleton:	yes
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

- » [Section 2.2.8.1, “Queue Service”](#)
- » [Section 2.2.8.2, “Topic Service”](#)

### Connection Properties

Table 2.177.

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName



### 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

### 2.2.8.1. Queue Service

#### Overview

Table 2.178. Overview

Description:	a JMS queue
Singleton:	no
Plugin:	JBossAS5



#### Note

The message counter metrics will not be collected by default. In order for these metrics to be collected for all Topics and Queues for a given application server instance, go to the instance's JMX Console, and invoke the **enableMessageCounters** operation on the **jboss.messaging:service=ServerPeer** MBean. To ensure the message counters are still enabled when the application server is restarted, edit that instance's **deploy/messaging/messaging-service.xml** file and set the **EnableMessageCounters** attribute to "true".

#### Parent Resource Types

- » [Section 2.2.8, "JBoss Messaging Service"](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.179.

Name	Description	Required	Internal Name
Jms Type		yes	jms-type
Custom Properties	Maps a list of custom property names to the fully qualified class names of the <code>org.rhq.plugins.jbossas5.adapter.api.PropertyAdapter</code> implementations that should be used for those properties.	no	customProperties
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Template Name		yes	templateName

Name	Description	Required	Internal Name
Component Name Property	The name of the Resource configuration property whose value should be used as the underlying ManagedComponent name when creating a new Resource of this type.	yes	componentNameProperty



## Note

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

## Metrics

**Table 2.180. Metrics**

Name	Type	Description	Internal Name
Run State	trait	Run State	runState
Created Programmatically	trait	Was this queue created programmatically? If Yes, the queue will not survive a restart of the application server. If No, the queue was created via a deployment XML file.	createdProgrammatically
Message Counter History Day Limit	trait	This queue's message counter history day limit - <0: unlimited, =0: history disabled, >0: maximum day count	messageCounterHistoryDayLimit
Consumer Count	measurement	The number of consumers on the queue	consumerCount
Delivering Count	measurement	The number of messages currently being delivered	deliveringCount
Message Count	measurement	The number of messages in the queue	messageCount
Scheduled Message Count	measurement	The number of scheduled messages in the queue	scheduledMessageCount
Count	measurement	The total message count since startup or last counter reset	messageStatistics.count
Count Delta	measurement	The message count delta since last method call	messageStatistics.countDelta

Name	Type	Description	Internal Name
Depth	measurement	The current message count of pending messages within the queue waiting for dispatch	messageStatistics.depth
Depth Delta	measurement	The message count delta of pending messages since last method call	messageStatistics.depthDelta
Time Last Update	measurement	The timestamp of the last message add	messageStatistics.timeLastUpdate
Clustered	trait	True if this queue is clustered, false otherwise	clustered



### Note

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

## Configuration Properties

Table 2.181.

Name	Description	Required	Internal Name
Name	The name of this queue (e.g. 'MyQueue').	yes	name
JNDI Name	This queue's JNDI name (e.g. '/queue/MyQueue').	yes	JNDIName
Clustered	Is this queue clustered? For an existing queue, this property is read-only. If not specified when creating a new queue, the default value is false.	no	clustered

Name	Description	Required	Internal Name
Down Cache Size	When paging messages to storage from a subscription, they first go into a "Down Cache" before being written to storage. This enables the write to occur as a single operation, thus aiding performance. This setting determines the maximum number of messages that the Down Cache will hold before they are flushed to storage. Updates to this property will not go into effect until the queue has been restarted. The default value is 2000.	no	downCacheSize
Full Size	The maximum number of messages for the queue held in memory at any one time. The actual queue can hold many more messages than this, but these are paged to and from storage as necessary, as messages are added or consumed. Updates to this property will not go into effect until the queue has been restarted. The default value is 200000.	no	fullSize
Max Delivery Attempts	The number of delivery attempts before a message to a subscriber of this queue is moved to the DLQ. The default value is 10. A value of -1 indicates the default value should be used.	no	maxDeliveryAttempts
Max Size	The maximum number of messages this queue can hold before they are dropped. A value of -1 means there is no maximum. The default value is -1.	no	maxSize

Name	Description	Required	Internal Name
Page Size	When loading messages from a subscription, this is the maximum number of messages to pre-load in one operation. Must be less than Full Size and greater than or equal to Down Cache Size. Updates to this property will not go into effect until the queue has been restarted. The default value is 2000.	no	pageSize
Redelivery Delay	The delay in milliseconds before a rolled back or recovered message is redelivered. Set to 0 to disable redelivery. The default value is 0. A value of -1 indicates the default value should be used.	no	redeliveryDelay
DLQ	The JMX ObjectName of the dead letter queue (DLQ) for this queue (e.g. "jboss.messaging.destination:service=Queue,name=PrivateDLQ") - overrides the default DLQ on the server peer.	no	DLQ
Expiry Queue	The JMX ObjectName of the expiry queue for this queue (e.g. "jboss.messaging.destination:service=Queue,name=PrivateExpiryQueue") - overrides the default expiry queue on the server peer.	no	expiryQueue
Server Peer	The JMX ObjectName of the server peer this queue was deployed on (e.g. "jboss.messaging:service=ServerPeer"). Updates to this property will not go into effect until the queue has been restarted.	no	serverPeer



Name	Description	Required	Internal Name
Security Configurations	This element specifies a XML fragment which describes the access control list to be used by the SecurityManager to authorize client operations against the destination. The content model is the same as for the SecurityManager SecurityConf attribute.	yes	securityConfig



### Note

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

## Operations

**Table 2.182. Metrics**

Name	Description
Remove All Messages	Remove all messages from the destination.
Start	Start the destination.
Stop	Stop the destination.
List All Messages	List all messages for the specified selector
List Durable Messages	List all durable messages for the specified selector
List Non Durable Messages	List all non durable messages for the specified selector
List Message Counter As HTML	Get the message counter as HTML
List Message Counter History As HTML	Get the message counter history as HTML
Reset Message Counter	Reset the message counter
Reset Message Counter History	Reset the message counter history

## Package Types

none

### 2.2.8.2. Topic Service

#### Overview

**Table 2.183. Overview**

Description:	a JMS topic
Singleton:	no
Plugin:	JBossAS5



## Note

The message counter metrics will not be collected by default. In order for these metrics to be collected for all Topics and Queues for a given application server instance, go to the instance's JMX Console, and invoke the **enableMessageCounters** operation on the **jboss.messaging:service=ServerPeer** MBean. To ensure the message counters are still enabled when the application server is restarted, edit that instance's **deploy/messaging/messaging-service.xml** file and set the **EnableMessageCounters** attribute to "true".

## Parent Resource Types

- ✦ [Section 2.2.8, "JBoss Messaging Service"](#)

## Child Resource Types

none

## Connection Properties

Table 2.184.

Name	Description	Required	Internal Name
Jms Type		yes	jms-type
Custom Properties	Maps a list of custom property names to the the fully qualified class names of the <code>org.rhq.plugins.jbossas5.adapter.api.PropertyAdapter</code> implementations that should be used for those properties.	no	customProperties
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Template Name		yes	templateName
Component Name Property	The name of the Resource configuration property whose value should be used as the underlying <code>ManagedComponent</code> name when creating a new Resource of this type.	yes	componentNameProperty

**Note**

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

**Metrics****Table 2.185. Metrics**

Name	Type	Description	Internal Name
Run State	trait	Run State	runState
Created Programmatically	trait	Was this topic created programmatically? If Yes, the topic will not survive a restart of the application server. If No, the topic was created via a deployment XML file.	createdProgrammatically
Message Counter History Day Limit	trait	This topic's message counter history day limit - <0: unlimited, =0: history disabled, >0: maximum day count	messageCounterHistoryDayLimit
All Message Count	measurement	The count of all messages in all subscriptions to this topic	allMessageCount
All Subscriptions Count	measurement	The count of all subscriptions to this topic	allSubscriptionsCount
Durable Message Count	measurement	The count of all messages for all durable subscriptions to this topic	durableMessageCount
Durable Subscriptions Count	measurement	The count of all durable subscriptions to this topic	durableSubscriptionsCount
Non Durable Message Count	measurement	The count of all messages in all non durable subscriptions to this topic	nonDurableMessageCount
Non Durable Subscriptions Count	measurement	The count of all non durable subscriptions to this topic	nonDurableSubscriptionsCount
Clustered	trait	True if this topic is clustered, false otherwise	clustered

**Note**

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

**Configuration Properties**

Table 2.186.

Name	Description	Required	Internal Name
Name	The name of this topic (e.g. 'MyTopic').	yes	name
JNDI Name	This topic's JNDI name (e.g. '/topic/MyTopic')	yes	JNDIName
Clustered	Is this topic clustered? For an existing topic, this property is read-only. If not specified when creating a new topic, the default value is false.	no	clustered
Down Cache Size	When paging messages to storage from a subscription, they first go into a "Down Cache" before being written to storage. This enables the write to occur as a single operation, thus aiding performance. This setting determines the maximum number of messages that the Down Cache will hold before they are flushed to storage. Updates to this property will not go into effect until the topic has been restarted. The default value is 2000.	no	downCacheSize
Full Size	The maximum number of messages held by the topic subscriptions in memory at any one time. The actual subscription can hold many more messages than this, but these are paged to and from storage as necessary, as messages are added or consumed. Updates to this property will not go into effect until the topic has been restarted. The default value is 200000.	no	fullSize

Name	Description	Required	Internal Name
Max Delivery Attempts	The number of delivery attempts before a message to a subscriber of this topic is moved to the DLQ. The default value is 10. A value of -1 indicates the default value should be used.	no	maxDeliveryAttempts
Max Size	The maximum number of messages this topic can hold before they are dropped. A value of -1 means there is no maximum. The default value is -1.	no	maxSize
Page Size	When loading messages from a subscription, this is the maximum number of messages to pre-load in one operation. Must be less than Full Size and greater than or equal to Down Cache Size. Updates to this property will not go into effect until the topic has been restarted. The default value is 2000.	no	pageSize
Redelivery Delay	The delay in milliseconds before a rolled back or recovered message is redelivered. Set to 0 to disable redelivery. The default value is 0. A value of -1 indicates the default value should be used.	no	redeliveryDelay
DLQ	The JMX ObjectName of the dead letter queue (DLQ) for this topic (e.g. "jboss.messaging.destination:service=Queue,name=PrivateDLQ") - overrides the default DLQ on the server peer.	no	DLQ
Expiry Queue	The JMX ObjectName of the expiry queue for this topic (e.g. "jboss.messaging.destination:service=Queue,name=PrivateExpiryQueue") - overrides the default expiry queue on the server peer.	no	expiryQueue

Name	Description	Required	Internal Name
Server Peer	The JMX ObjectName of the server peer this topic was deployed on (e.g. "jboss.messaging:service=ServerPeer"). Updates to this property will not go into effect until the topic has been restarted.	no	serverPeer
Security Configurations	This element specifies a XML fragment which describes the access control list to be used by the SecurityManager to authorize client operations against the destination. The content model is the same as for the SecurityManager SecurityConf attribute.	yes	securityConfig



### Note

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

## Operations

**Table 2.187. Metrics**

Name	Description
Remove All Messages	Remove all messages from the destination.
Start	Start the destination.
Stop	Stop the destination.
List All Messages	List all messages for the specified subscription with the specified selector
List Durable Messages	List all durable messages for the specified subscription with the specified selector
List Non Durable Messages	List all non durable messages for the specified subscription with the specified selector
List All Subscriptions	Return all subscriptions for the topic
List All Subscriptions As HTML	Return all subscriptions for the topic as HTML
List Durable Subscriptions	Return all durable subscriptions for the topic
List Durable Subscriptions As HTML	Return all durable subscriptions for the topic as HTML
List Non-Durable Subscriptions	Return all non-durable subscriptions for the topic
List Non-Durable Subscriptions As HTML	Return all non-durable subscriptions for the topic as HTML

## Package Types

none

## 2.2.9. JBoss Web Service

### Overview

**Table 2.188. Overview**

Description:	JBoss Web Servlet Container
Singleton:	yes
Plugin:	JBossAS5

### Parent Resource Types

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

- ✦ [Section 2.2.9.1, “Connector Service”](#)
- ✦ [Section 2.2.9.2, “Virtual Host Service”](#)

### Connection Properties

none

### Metrics

none

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.2.9.1. Connector Service

### Overview

**Table 2.189. Overview**

Description:	a JBoss Web Connector
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

» [Section 2.2.9, “JBoss Web Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.190.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Protocol	this connector's protocol (e.g. jk, ajp, http)	yes	protocol
Address	the IP address this connector listens on	yes	address
Port	the port this connector listens on	yes	port



### Note

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

## Metrics

**Table 2.191. Metrics**

Name	Type	Description	Internal Name
Maximum Request Time	measurement	the maximum time it took to process a request since the last restart	maxTime
Request Count	measurement	the total number of requests processed since the last restart	requestCount
Request Count per Minute	measurement	the total number of requests processed since the last restart	requestCount
Error Count	measurement	the number of errors while processing requests since the last restart	errorCount
Error Count per Minute	measurement	the number of errors while processing requests since the last restart	errorCount



Name	Type	Description	Internal Name
Current Active Threads	measurement	the number of threads for this connector that are currently active	ThreadPool currentThreadsBusy
Current Thread Count	measurement	the number of threads for this connector that currently exist	ThreadPool currentThreadCount



## Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.2.9.2. Virtual Host Service

### Overview

**Table 2.192. Overview**

Description:	a JBoss Web virtual host
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.2.9, “JBoss Web Service”](#)

### Child Resource Types

none

### Connection Properties

**Table 2.193.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName

Name	Description	Required	Internal Name
Name	the virtual host's name (e.g. localhost)	yes	name



### Note

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

## Metrics

Table 2.194. Metrics

Name	Type	Description	Internal Name
Aliases	trait	the aliases for this virtual host, if any	aliases



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.2.10. Local Tx Datasource Service

### Overview

Table 2.195. Overview

Description:	Local Transaction Datasources deployed in the instance of JBoss AS
Singleton:	no
Plugin:	JBossAS5

## Parent Resource Types

- » [Section 2.1, "JBossAS 4.x and EAP 4.x Server"](#)

## Child Resource Types

none

## Connection Properties

Table 2.196.

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Template Name		yes	templateName
Component Name Property	The name of the Resource configuration property whose value should be used as the underlying ManagedComponent name when creating a new Resource of this type.	yes	componentNameProperty



### Note

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

## Metrics

Table 2.197. Metrics

Name	Type	Description	Internal Name
Run State	trait	Run State	runState
Pool JNDI Name	trait	the JNDI name of the connection pool for this datasource	poolJndiName
Available Connection Count	measurement	the maximum number of connections that are available	availableConnectionCount
Connection Count	measurement	the number of connections that are currently in the pool	connectionCount
Connection Created Count	measurement	the number of connections that have been created since the datasource was last started	connectionCreatedCount

Name	Type	Description	Internal Name
Connection Destroyed Count	measurement	the number of connections that have been destroyed since the datasource was last started	connectionDestroyedCount
In Use Connection Count	measurement	the number of connections that are currently in use	inUseConnectionCount
Local Transaction	trait	Local Transaction	local-transaction
Max Connections In Use Count	measurement	the most connections that have been simultaneously in use since this datasource was started	maxConnectionsInUseCount
Max Size	measurement	Max Size	maxSize
Min Size	measurement	Min Size	minSize



### Note

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

## Configuration Properties

Table 2.198.

Name	Description	Required	Internal Name
JNDI Name	The global JNDI Name under which to bind the datasource	yes	jndi-name
Username	The default username when creating a new connection.	no	user-name
Password	The default password when creating a new connection.	no	password
Minimum Pool Size	The minimum number of connections the pool should hold. The default is 0.	no	min-pool-size
Maximum Pool Size	The maximum number of connections the pool should hold. The default is 10.	no	max-pool-size
JDBC Driver Class	The fully qualified name of the JDBC driver class (e.g. "oracle.jdbc.driver.OracleDriver").	yes	driver-class

Name	Description	Required	Internal Name
Connection URL	The JDBC URL for the database (e.g. "jdbc:oracle:thin:@host.example.com:1521:db"). To define a high availability (HA) datasource, specify a list of URLs separated by URL delimiters (e.g. "jdbc:oracle:thin:@host1.example.com:1521:db1 jdbc:oracle:thin:@host2.example.com:1521:db2").	yes	connection-url
Connection Properties	Arbitrary connection properties that should be passed to the <code>java.sql.Driver.connect(url, props)</code> method.	no	connection-properties
Allocation Retry	The number of times that allocating a connection should be tried before throwing an exception. The default is 0.	no	allocation-retry
Allocation Retry Wait Millis	The time in milliseconds to wait between retrying to allocate a connection. The default is 5000 (5 seconds).	no	allocation-retry-wait-millis
Background Validation	Specify if connections should be validated on a background thread versus being validated prior to use. Background validation is meant to reduce the overall load on the RDBMS system when validating a connection. The default is No.	no	background-validation
Background Validation Millis	The interval, in milliseconds, at which the <code>ConnectionValidator</code> will run. Set to 0 to disable background validation. The default is 0.	no	background-validation-millis

Name	Description	Required	Internal Name
Blocking Timeout in Milliseconds	Indicates the maximum time in milliseconds to block while waiting for a connection before throwing an exception. Note that this blocks only while waiting for a permit for a connection, and will never throw an exception if creating a new connection takes an inordinately long time. The default is 30000 (30 seconds).	no	blocking-timeout-millis
Idle Timeout	The maximum time, in minutes, a connection may be idle before being closed. The default is 30.	no	idle-timeout-minutes
Is Same RM Override Value	If set, unconditionally sets the boolean return value of <code>javax.transaction.xa.XAResource.isSameRM(XAResource)</code> .	no	isSameRM-override-value
Jmx Invoker Name	The <code>ObjectName</code> of the JMX Invoker MBean associated with this <code>datasource</code> .	no	jmx-invoker-name
Metadata	Metadata properties.	no	metadata
No Tx Separate Pools	If true, the <code>datasource</code> cannot reuse a connection outside a transaction once enlisted in a global transaction and vice-versa. The default is Yes.	no	no-tx-separate-pools
Prefill	Whether to attempt to prefill the connection pool to the minimum number of connections. NOTE: Only supporting pools (OnePool) support this feature. A warning can be found in the logs if the pool does not support this. The default is No.	no	prefill
Security Settings	Security settings for connections in the pool.	no	security-domain

Name	Description	Required	Internal Name
Statistics Formatter	The fully qualified class name of the class to use for formatting managed connection pool statistics for this datasource. The class must implement the <code>org.jboss.resource.statistic.formatter.StatisticsFormatter</code> interface. The default is <code>"org.jboss.resource.statistic.pool.JBossDefaultSubPoolStatisticFormatter"</code> .	no	statistics-formatter
Type Mapping	The name of the corresponding type-mapping in <code>conf/standardjbosscmp-jdbc.xml</code> . The type mappings provided by default: DB2, InformixDB, MaxDB, MySQL, Oracle9i, PointBase, InterBase, Mimer SQL, McKoi, SapDB, DB2/400, SOLID, Hypersonic SQL, FirstSQL/J, MS SQLSERVER2000, MS SQLSERVER, Cloudscape, Derby, Firebird, PostgreSQL 8.0, PostgreSQL, Sybase, Ingres. Note, there may be custom type mappings defined in addition to these predefined mappings.	no	type-mapping
Use Java Context	Indicates whether the JNDI name should be bound under the "java" context, which causes the DataSource to only be accessible from within the JBossAS VM. The default is Yes.	no	use-java-context
Use Strict Min	Whether idle connections below the <code>min-pool-size</code> should be closed. The default is No.	no	use-strict-min

Name	Description	Required	Internal Name
Validate On Match	The validate-on-match element indicates whether or not connection level validation should be done when a connection factory attempts to match a managed connection for a given set. This is typically exclusive to the use of background validation. The default is Yes.	no	validate-on-match
Check Valid Connection SQL	The SQL statement to use to check the validity of a pool connection.	no	check-valid-connection-sql
Connection Definition	The connection definition inside the RAR deployment uniquely identified by the connection factory interface, e.g. "javax.sql.DataSource".	no	connection-definition
Exception Sorter Class Name	The fully qualified name of a Java class implementing the org.jboss.resource.adapter.jdbc.ExceptionSorter interface that should be used to check if a JDBC exception should be broadcast.	no	exception-sorter-class-name
New Connection SQL	An SQL statement to execute whenever a new connection is added to the pool; this can be used to set the connection schema, etc.	no	new-connection-sql
Prepared Statement Cache Size	The number of prepared statements per connection to be kept open and reused in subsequent requests. They are stored in an LRU cache. Set to 0 to disable the cache. The default is 0.	no	prepared-statement-cache-size
Query Timeout	Any configured query timeout in seconds. A value of 0 means no timeout. The default is 0.	no	query-timeout



Name	Description	Required	Internal Name
Rar Name	The RAR deployment to associate with the connection manager MBean. e.g. <code>jdbc-ra.rar</code> or <code>myapplication.ear#my.rar</code> for nested rars.	no	<code>rar-name</code>
Set Tx Query Timeout	Whether to set the query timeout based on the time remaining until transaction timeout; any configured query timeout will be used if there is no transaction. The default is No.	no	<code>set-tx-query-timeout</code>
Share Prepared Statements	Should prepared statements be shared? The default is No.	no	<code>share-prepared-statements</code>
Stale Connection Checker Class Name	Fully qualified name of the Java class used to check if a connection has become stale.	no	<code>stale-connection-checker-class-name</code>
Track Statements	Whether to check for unclosed Statements and ResultSets when connections are returned to the pool. The default is "yes-no-warnings".	no	<code>track-statements</code>
Transaction Isolation	The Transaction Isolation level. The default setting is to use whichever isolation level is provided by default by the database.	no	<code>transaction-isolation</code>
Url Delimiter	Specifies the delimiter for URLs in the value of the <code>connection-url</code> property for HA datasources. The default is " ".	no	<code>url-delimiter</code>
Url Selector Strategy Class Name	The fully qualified class name of a Java class implementing the <code>org.jboss.resource.adapter.jdbc.URLSelectorStrategy</code> interface.	no	<code>url-selector-strategy-class-name</code>
Use Try Lock	Any configured timeout, in milliseconds, for internal locks on the resource adapter objects. A value of 0 means no timeout. The default is 0.	no	<code>use-try-lock</code>

Name	Description	Required	Internal Name
Valid Connection Checker Class Name	The fully qualified name of a Java class implementing the <code>org.jboss.resource.adapter.jdbc.ValidConnectionChecker</code> whose <code>pingDatabase</code> method should be used to check if a connection is still valid before handing it out from the pool.	no	valid-connection-checker-class-name



### Note

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

## Operations

Table 2.199. Metrics

Name	Description
Flush	Flush the connections in the pool
List Formatted Sub Pool Statistics	Obtain a formatted sub pool statistics report
List Statistics	Obtain a statistics report
Test Connection	Test if a connection can be obtained - returns true if a connection was obtained, or false if not; NOTE: this operation will always return a status of Successful - the results of the operation must be inspected to see whether or not a connection was obtained

## Package Types

none

### 2.2.11. No Tx ConnectionFactory Service

#### Overview

Table 2.200. Overview

Description:	A ConnectionFactory that does not take part in JTA transactions.
Singleton:	no
Plugin:	JBossAS5

## Parent Resource Types

» [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

Table 2.201.

Name	Description	Required	Internal Name
Custom Properties	Maps a list of custom property names to the the fully qualified class names of the org.rhq.plugins.jbossas5.adapter.api.PropertyAdapter implementations that should be used for those properties.	no	customProperties
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Template Name		yes	templateName
Component Name Property	The name of the Resource configuration property whose value should be used as the underlying ManagedComponent name when creating a new Resource of this type.	yes	componentNameProperty



### Note

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

## Metrics

Table 2.202. Metrics

Name	Type	Description	Internal Name
Run State	trait	Run State	runState
Pool JNDI Name	trait	Pool JNDI Name	poolJndiName
Available Connection Count	measurement	Number of available connections.	availableConnectionCount
Connection Count	measurement	Connection Count	connectionCount
Connection Created Count	measurement	Connection Created Count	connectionCreatedCount

Name	Type	Description	Internal Name
Connection Destroyed Count	measurement	Connection Destroyed Count	connectionDestroyedCount
In Use Connection Count	measurement	Number of connections currently in use.	inUseConnectionCount
Max Connections In Use Count	measurement	Maximum number of maximum connections that have been in use.	maxConnectionsInUseCount
Max Size	measurement	Max Size	maxSize
Min Size	measurement	Min Size	minSize



### Note

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

## Configuration Properties

Table 2.203.

Name	Description	Required	Internal Name
JNDI Name	The global JNDI name to bind the connection factory under.	yes	jndi-name
RAR Name	The name of the RAR file that contains the definition for the resource we want to provide. For nested RAR files, the name would look like myapplication.ear#my.rar.	yes	rar-name
Connection Definition	The connection factory interface class. It should match the connectionfactory-interface in the ra.xml file.	yes	connection-definition
Minimum Pool Size	The minimum number of connections the pool should hold. The default is 0.	no	min-pool-size
Maximum Pool Size	The maximum number of connections the pool should hold. The default is 10.	no	max-pool-size

Name	Description	Required	Internal Name
Allocation Retry	The number of times that allocating a connection should be tried before throwing an exception. The default is 0.	no	allocation-retry
Allocation Retry Wait Millis	The time in milliseconds to wait between retrying to allocate a connection. The default is 5000 (5 seconds).	no	allocation-retry-wait-millis
Background Validation	Specify if connections should be validated on a background thread versus being validated prior to use. Background validation is meant to reduce the overall load on the RDBMS system when validating a connection. The default is No.	no	background-validation
Background Validation Millis	The interval, in milliseconds, at which the ConnectionValidator will run. Set to 0 to disable background validation. The default is 0.	no	background-validation-millis
Blocking Timeout in Milliseconds	Indicates the maximum time in milliseconds to block while waiting for a connection before throwing an exception. Note that this blocks only while waiting for a permit for a connection, and will never throw an exception if creating a new connection takes an inordinately long time. The default is 30000 (30 seconds).	no	blocking-timeout-millis
Idle Timeout	The maximum time, in minutes, a connection may be idle before being closed. The default is 30.	no	idle-timeout-minutes
Is Same RM Override Value	If set, unconditionally sets the boolean return value of <code>javax.transaction.xa.XAResource.isSameRM(XAResource)</code> .	no	isSameRM-override-value

Name	Description	Required	Internal Name
Jmx Invoker Name	The ObjectName of the JMX Invoker MBean associated with this datasource.	no	jmx-invoker-name
Metadata	Metadata properties.	no	metadata
No Tx Separate Pools	If true, the datasource cannot reuse a connection outside a transaction once enlisted in a global transaction and vice-versa. The default is Yes.	no	no-tx-separate-pools
Prefill	Whether to attempt to prefill the connection pool to the minimum number of connections. NOTE: Only supporting pools (OnePool) support this feature. A warning can be found in the logs if the pool does not support this. The default is No.	no	prefill
Security Settings	Security settings for connections in the pool.	no	security-domain
Statistics Formatter	The fully qualified class name of the class to use for formatting managed connection pool statistics for this datasource. The class must implement the <code>org.jboss.resource.statistic.formatter.StatisticsFormatter</code> interface. The default is <code>"org.jboss.resource.statistic.pool.JBossDefaultSubPoolStatisticFormatter"</code> .	no	statistics-formatter

Name	Description	Required	Internal Name
Type Mapping	The name of the corresponding type-mapping in conf/standardjbosscmp-jdbc.xml. The type mappings provided by default: DB2, InformixDB, MaxDB, MySQL, Oracle9i, PointBase, InterBase, Mimer SQL, McKoi, SapDB, DB2/400, SOLID, Hypersonic SQL, FirstSQL/J, MS SQLSERVER2000, MS SQLSERVER, Cloudscape, Derby, Firebird, PostgreSQL 8.0, PostgreSQL, Sybase, Ingres. Note, there may be custom type mappings defined in addition to these predefined mappings.	no	type-mapping
Use Java Context	Indicates whether the JNDI name should be bound under the "java" context, which causes the DataSource to only be accessible from within the JBossAS VM. The default is Yes.	no	use-java-context
Use Strict Min	Whether idle connections below the min-pool-size should be closed. The default is No.	no	use-strict-min
Validate On Match	The validate-on-match element indicates whether or not connection level validation should be done when a connection factory attempts to match a managed connection for a given set. This is typically exclusive to the use of background validation. The default is Yes.	no	validate-on-match

Name	Description	Required	Internal Name
Config Property	Properties to supply to the ManagedConnectionFactory (MCF) MBean service configuration.	no	config-property



### Note

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

## Operations

Table 2.204. Metrics

Name	Description
Flush	Flush the connections in the pool
List Formatted Sub Pool Statistics	Obtain a formatted sub pool statistics report
List Statistics	Obtain a statistics report
Test Connection	Test if a connection can be obtained - returns true if a connection was obtained, or false if not; NOTE: this operation will always return a status of Successful - the results of the operation must be inspected to see whether or not a connection was obtained

## Package Types

none

## 2.2.12. No Tx Datasource Service

### Overview

Table 2.205. Overview

Description:	No Transaction Datasources deployed in the instance of JBoss AS
Singleton:	no
Plugin:	JBossAS5

## Parent Resource Types

✳ [Section 2.1, "JBossAS 4.x and EAP 4.x Server"](#)

## Child Resource Types

none



## Connection Properties

Table 2.206.

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Template Name		yes	templateName
Component Name Property	The name of the Resource configuration property whose value should be used as the ManagedComponent name when creating a new Resource of this type.	yes	componentNameProperty



### Note

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

## Metrics

Table 2.207. Metrics

Name	Type	Description	Internal Name
Run State	trait	Run State	runState
Pool JNDI Name	trait	the JNDI name of the connection pool for this datasource	poolJndiName
Available Connection Count	measurement	the maximum number of connections that are available	availableConnectionCount
Connection Count	measurement	the number of connections that are currently in the pool	connectionCount
Connection Created Count	measurement	the number of connections that have been created since the datasource was last started	connectionCreatedCount
Connection Destroyed Count	measurement	the number of connections that have been destroyed since the datasource was last started	connectionDestroyedCount
In Use Connection Count	measurement	the number of connections that are currently in use	inUseConnectionCount

Name	Type	Description	Internal Name
Local Transaction	trait	Local Transaction	local-transaction
Max Connections In Use Count	measurement	the most connections that have been simultaneously in use since this datasource was started	maxConnectionsInUseCount
Max Size	measurement	Max Size	maxSize
Min Size	measurement	Min Size	minSize



### Note

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

## Configuration Properties

Table 2.208.

Name	Description	Required	Internal Name
JNDI Name	The global JNDI Name under which to bind the datasource	yes	jndi-name
Username	The default username when creating a new connection.	no	user-name
Password	The default password when creating a new connection.	no	password
Minimum Pool Size	The minimum number of connections the pool should hold. The default is 0.	no	min-pool-size
Maximum Pool Size	The maximum number of connections the pool should hold. The default is 10.	no	max-pool-size
JDBC Driver Class	The fully qualified name of the JDBC driver class (e.g. "oracle.jdbc.driver.OracleDriver").	yes	driver-class

Name	Description	Required	Internal Name
Connection URL	The JDBC URL for the database (e.g. "jdbc:oracle:thin:@host.example.com:1521:db"). To define a high availability (HA) datasource, specify a list of URLs separated by URL delimiters (e.g. "jdbc:oracle:thin:@host1.example.com:1521:db1 jdbc:oracle:thin:@host2.example.com:1521:db2").	yes	connection-url
Connection Properties	Arbitrary connection properties that should be passed to the <code>java.sql.Driver.connect(url, props)</code> method.	no	connection-properties
Allocation Retry	The number of times that allocating a connection should be tried before throwing an exception. The default is 0.	no	allocation-retry
Allocation Retry Wait Millis	The time in milliseconds to wait between retrying to allocate a connection. The default is 5000 (5 seconds).	no	allocation-retry-wait-millis
Background Validation	Specify if connections should be validated on a background thread versus being validated prior to use. Background validation is meant to reduce the overall load on the RDBMS system when validating a connection. The default is No.	no	background-validation
Background Validation Millis	The interval, in milliseconds, at which the <code>ConnectionValidator</code> will run. Set to 0 to disable background validation. The default is 0.	no	background-validation-millis

Name	Description	Required	Internal Name
Blocking Timeout in Milliseconds	Indicates the maximum time in milliseconds to block while waiting for a connection before throwing an exception. Note that this blocks only while waiting for a permit for a connection, and will never throw an exception if creating a new connection takes an inordinately long time. The default is 30000 (30 seconds).	no	blocking-timeout-millis
Idle Timeout	The maximum time, in minutes, a connection may be idle before being closed. The default is 30.	no	idle-timeout-minutes
Is Same RM Override Value	If set, unconditionally sets the boolean return value of <code>javax.transaction.xa.XAResource.isSameRM(XAResource)</code> .	no	isSameRM-override-value
Jmx Invoker Name	The <code>ObjectName</code> of the JMX Invoker MBean associated with this <code>datasource</code> .	no	jmx-invoker-name
Metadata	Metadata properties.	no	metadata
No Tx Separate Pools	If true, the <code>datasource</code> cannot reuse a connection outside a transaction once enlisted in a global transaction and vice-versa. The default is Yes.	no	no-tx-separate-pools
Prefill	Whether to attempt to prefill the connection pool to the minimum number of connections. NOTE: Only supporting pools (OnePool) support this feature. A warning can be found in the logs if the pool does not support this. The default is No.	no	prefill
Security Settings	Security settings for connections in the pool.	no	security-domain

Name	Description	Required	Internal Name
Statistics Formatter	The fully qualified class name of the class to use for formatting managed connection pool statistics for this datasource. The class must implement the <code>org.jboss.resource.statistic.formatter.StatisticsFormatter</code> interface. The default is <code>"org.jboss.resource.statistic.pool.JBossDefaultSubPoolStatisticFormatter"</code> .	no	statistics-formatter
Type Mapping	The name of the corresponding type-mapping in <code>conf/standardjbosscmp-jdbc.xml</code> . The type mappings provided by default: DB2, InformixDB, MaxDB, MySQL, Oracle9i, PointBase, InterBase, Mimer SQL, McKoi, SapDB, DB2/400, SOLID, Hypersonic SQL, FirstSQL/J, MS SQLSERVER2000, MS SQLSERVER, Cloudscape, Derby, Firebird, PostgreSQL 8.0, PostgreSQL, Sybase, Ingres. Note, there may be custom type mappings defined in addition to these predefined mappings.	no	type-mapping
Use Java Context	Indicates whether the JNDI name should be bound under the "java" context, which causes the DataSource to only be accessible from within the JBossAS VM. The default is Yes.	no	use-java-context
Use Strict Min	Whether idle connections below the <code>min-pool-size</code> should be closed. The default is No.	no	use-strict-min

Name	Description	Required	Internal Name
Validate On Match	The validate-on-match element indicates whether or not connection level validation should be done when a connection factory attempts to match a managed connection for a given set. This is typically exclusive to the use of background validation. The default is Yes.	no	validate-on-match
Check Valid Connection SQL	The SQL statement to use to check the validity of a pool connection.	no	check-valid-connection-sql
Connection Definition	The connection definition inside the RAR deployment uniquely identified by the connection factory interface, e.g. "javax.sql.DataSource".	no	connection-definition
Exception Sorter Class Name	The fully qualified name of a Java class implementing the org.jboss.resource.adapter.jdbc.ExceptionSorter interface that should be used to check if a JDBC exception should be broadcast.	no	exception-sorter-class-name
New Connection SQL	An SQL statement to execute whenever a new connection is added to the pool; this can be used to set the connection schema, etc.	no	new-connection-sql
Prepared Statement Cache Size	The number of prepared statements per connection to be kept open and reused in subsequent requests. They are stored in an LRU cache. Set to 0 to disable the cache. The default is 0.	no	prepared-statement-cache-size
Query Timeout	Any configured query timeout in seconds. A value of 0 means no timeout. The default is 0.	no	query-timeout

Name	Description	Required	Internal Name
Rar Name	The RAR deployment to associate with the connection manager MBean. e.g. <code>jdbc-ra.rar</code> or <code>myapplication.ear#my.rar</code> for nested rars.	no	<code>rar-name</code>
Set Tx Query Timeout	Whether to set the query timeout based on the time remaining until transaction timeout; any configured query timeout will be used if there is no transaction. The default is No.	no	<code>set-tx-query-timeout</code>
Share Prepared Statements	Should prepared statements be shared? The default is No.	no	<code>share-prepared-statements</code>
Stale Connection Checker Class Name	Fully qualified name of the Java class used to check if a connection has become stale.	no	<code>stale-connection-checker-class-name</code>
Track Statements	Whether to check for unclosed Statements and ResultSets when connections are returned to the pool. The default is "yes-no-warnings".	no	<code>track-statements</code>
Transaction Isolation	The Transaction Isolation level. The default setting is to use whichever isolation level is provided by default by the database.	no	<code>transaction-isolation</code>
Url Delimiter	Specifies the delimiter for URLs in the value of the <code>connection-url</code> property for HA datasources. The default is " ".	no	<code>url-delimiter</code>
Url Selector Strategy Class Name	The fully qualified class name of a Java class implementing the <code>org.jboss.resource.adapter.jdbc.URLSelectorStrategy</code> interface.	no	<code>url-selector-strategy-class-name</code>
Use Try Lock	Any configured timeout, in milliseconds, for internal locks on the resource adapter objects. A value of 0 means no timeout. The default is 0.	no	<code>use-try-lock</code>

Name	Description	Required	Internal Name
Valid Connection Checker Class Name	The fully qualified name of a Java class implementing the <code>org.jboss.resource.adapter.jdbc.ValidConnectionChecker</code> whose <code>pingDatabase</code> method should be used to check if a connection is still valid before handing it out from the pool.	no	valid-connection-checker-class-name



### Note

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

## Operations

Table 2.209. Metrics

Name	Description
Flush	Flush the connections in the pool
List Formatted Sub Pool Statistics	Obtain a formatted sub pool statistics report
List Statistics	Obtain a statistics report
Test Connection	Test if a connection can be obtained - returns true if a connection was obtained, or false if not; NOTE: this operation will always return a status of Successful - the results of the operation must be inspected to see whether or not a connection was obtained

## Package Types

none

### 2.2.13. Resource Adapter Archive (RAR) Service

#### Overview

Table 2.210. Overview

Description:	a standalone JCA resource adapter archive (RAR)
Singleton:	no
Plugin:	JBossAS5

## Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)



## Child Resource Types

none

## Connection Properties

Table 2.211.

Name	Description	Required	Internal Name
Deployment Name	the name of this RAR	yes	deploymentName
Filename		yes	filename
Extension		yes	extension
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName



### Note

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

## Metrics

Table 2.212. Metrics

Name	Type	Description	Internal Name
Path	trait	the absolute path of this RAR file or directory	custom.path
Exploded?	trait	whether this RAR is deployed exploded (i.e. as a directory)	custom.exploded



### Note

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

## Configuration Properties

none

## Operations

Table 2.213. Metrics

Name	Description
Start	starts this RAR
Stop	stops this RAR
Restart	stops and then restarts this RAR

## Package Types

Table 2.214. Package Types

Name	Category	Description
RAR File	Deployable	

## 2.2.14. Script Service

### Overview

Table 2.215. Overview

Description:	provides the ability to execute a script that performs some task related to its parent JBossAS server
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

Table 2.216.

Name	Description	Required	Internal Name
Path	the absolute path to the script file	yes	path

Name	Description	Required	Internal Name
Environment Variables	the environment variables that will be passed to the script; each variable must be on a new line and have the syntax name=value; the variable's value can contain properties with the syntax %propertyName%; the script plugin will interpolate these with the current values of the corresponding properties from the script's parent JBossAS server's connection properties	no	environmentVariables



### Note

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

### Metrics

none

### Configuration Properties

none

### Operations

Table 2.217. Metrics

Name	Description
Execute Script	execute the script; NOTE: environment variables to be passed to the script can be configured via this Script service's connection properties (under its Inventory tab)

### Package Types

Table 2.218. Package Types

Name	Category	Description
Executable Script	Executable Script	This is the script file to be uploaded to the server's bin directory.

## 2.2.15. Service Binding Manager Service

### Overview

**Table 2.219. Overview**

Description:	The Service Binding Manager manages the ports of the deployed services
Singleton:	yes
Plugin:	JBossAS5

### Parent Resource Types

- [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

- [Section 2.2.15.1, “Service Binding Set Service”](#)

### Connection Properties

**Table 2.220.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName



#### Note

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

### Metrics

**Table 2.221. Metrics**

Name	Type	Description	Internal Name
Active Binding Set	trait	The active binding set used to obtain port bindings from.	activeBindingSetName



#### Note

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

### Configuration Properties

Table 2.222.

Name	Description	Required	Internal Name
Active Binding Set Name	The name of the binding set the Service Binding Manager should use when resolving bindings. Note to JBoss ON or Jopr users (does not apply to JBoss AS admin console): CHANGING THIS PROPERTY IS POTENTIALLY DANGEROUS because if there are any port conflicts on the machine the Application Server is running on, the server will not start up again and it will not be possible to monitor it. To be able to monitor the server again after the restart you have to update the "Naming Provider Url" in the "Connection" subtab in the "Inventory" of the Application Server to the value of "jboss:service=Naming:Port" binding of the active binding set. I.e. if the "jboss:service=Naming:Port" binding of the active binding set has the port set to 4099 and hostname to 127.0.0.1, you have to set the "Naming Provider Url" to jnp://127.0.0.1:4099.	yes	activeBindingSetName
Standard Bindings	The standard port bindings inherited by the binding sets.	yes	standardBindings



### Note

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

### Operations

none

## Package Types

none

### 2.2.15.1. Service Binding Set Service

#### Overview

Table 2.223. Overview

Description:	The Service Binding Set defines all bindings of a profile. It inherits the standard bindings from the Service Binding Manager and defines a port offset and overridden and additional bindings.
Singleton:	no
Plugin:	JBossAS5

#### Parent Resource Types

- » [Section 2.2.15, “Service Binding Manager Service”](#)

#### Child Resource Types

none

#### Connection Properties

none

#### Metrics

Table 2.224. Metrics

Name	Type	Description	Internal Name
Name	trait	The name of this binding set.	name
Default Host Name	trait	The default host name of this binding set.	defaultHostName
Port Offset	trait	The port offset of this binding set.	portOffset



#### Note

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

#### Configuration Properties

Table 2.225.

Name	Description	Required	Internal Name
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Name	Description	Required	Internal Name
Name	The name of this binding set.	yes	name
Default Host Name	The host name that should be used for all bindings whose configuration does not specify "fixed host name".	yes	defaultHostName
Port Offset	A value to add to the port configuration for a standard binding to derive the port to use in this binding set. This doesn't apply to standard bindings defined as 'fixed port'.	yes	portOffset
Override Bindings	The binding configurations that apply only to this binding set, either non-standard bindings or ones that override standard binding configurations. The binding set inherits the standard bindings from the Service Binding Manager, applies the port offset to them (unless the standard binding is defined as "fixed port"), and appends the override bindings. These can either redefine a standard binding or define a brand new binding. The standard bindings and the override bindings then define the full set of the bindings that are defined by the binding set.	yes	overrideBindings



### Note

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

## Operations

Table 2.226. Metrics

Name	Description
Display Bindings	Displays the full set of bindings as they would look if this bindings set was active.

### Package Types

none

## 2.2.16. Tx ConnectionFactory Service

### Overview

**Table 2.227. Overview**

Description:	A ConnectionFactory that takes part in JTA transactions.
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

**Table 2.228.**

Name	Description	Required	Internal Name
Custom Properties	Maps a list of custom property names to the the fully qualified class names of the org.rhq.plugins.jbossas5.adapter.api.PropertyAdapter implementations that should be used for those properties.	no	customProperties
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Template Name		yes	templateName



Name	Description	Required	Internal Name
Component Name Property	The name of the Resource configuration property whose value should be used as the underlying ManagedComponent name when creating a new Resource of this type.	yes	componentNameProperty



### Note

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

## Metrics

Table 2.229. Metrics

Name	Type	Description	Internal Name
Transaction Type	trait	The type of transactions used by this connection factory - Local or XA	custom.transactionType
Run State	trait	Run State	runState
Pool JNDI Name	trait	Pool JNDI Name	poolJndiName
Available Connection Count	measurement	Number of available connections.	availableConnectionCount
Connection Count	measurement	Connection Count	connectionCount
Connection Created Count	measurement	Connection Created Count	connectionCreatedCount
Connection Destroyed Count	measurement	Connection Destroyed Count	connectionDestroyedCount
In Use Connection Count	measurement	Number of connections currently in use.	inUseConnectionCount
Max Connections In Use Count	measurement	Maximum number of maximum connections that have been in use.	maxConnectionsInUseCount
Max Size	measurement	Max Size	maxSize
Min Size	measurement	Min Size	minSize



### Note

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

## Configuration Properties

Table 2.230.

Name	Description	Required	Internal Name
JNDI Name	The global JNDI name to bind the connection factory under.	yes	jndi-name
RAR Name	The name of the RAR file that contains the definition for the resource we want to provide. For nested RAR files, the name would look like myapplication.ear#my.rar.	yes	rar-name
Connection Definition	The connection factory interface class. It should match the connectionfactory-interface in the ra.xml file.	yes	connection-definition
Minimum Pool Size	The minimum number of connections the pool should hold. The default is 0.	no	min-pool-size
Maximum Pool Size	The maximum number of connections the pool should hold. The default is 10.	no	max-pool-size
XA Transaction	Whether on not to use XA transactions. The default is No.	no	xa-transaction
Allocation Retry	The number of times that allocating a connection should be tried before throwing an exception. The default is 0.	no	allocation-retry
Allocation Retry Wait Millis	The time in milliseconds to wait between retrying to allocate a connection. The default is 5000 (5 seconds).	no	allocation-retry-wait-millis
Background Validation	Specify if connections should be validated on a background thread versus being validated prior to use. Background validation is meant to reduce the overall load on the RDBMS system when validating a connection. The default is No.	no	background-validation

Name	Description	Required	Internal Name
Background Validation Millis	The interval, in milliseconds, at which the ConnectionValidator will run. Set to 0 to disable background validation. The default is 0.	no	background-validation-millis
Blocking Timeout in Milliseconds	Indicates the maximum time in milliseconds to block while waiting for a connection before throwing an exception. Note that this blocks only while waiting for a permit for a connection, and will never throw an exception if creating a new connection takes an inordinately long time. The default is 30000 (30 seconds).	no	blocking-timeout-millis
Idle Timeout	The maximum time, in minutes, a connection may be idle before being closed. The default is 30.	no	idle-timeout-minutes
Is Same RM Override Value	If set, unconditionally sets the boolean return value of <code>javax.transaction.xa.XAResource.isSameRM(XAResource)</code> .	no	isSameRM-override-value
Jmx Invoker Name	The ObjectName of the JMX Invoker MBean associated with this datasource.	no	jmx-invoker-name
Metadata	Metadata properties.	no	metadata
No Tx Separate Pools	If true, the datasource cannot reuse a connection outside a transaction once enlisted in a global transaction and vice-versa. The default is Yes.	no	no-tx-separate-pools
Prefill	Whether to attempt to prefill the connection pool to the minimum number of connections. NOTE: Only supporting pools (OnePool) support this feature. A warning can be found in the logs if the pool does not support this. The default is No.	no	prefill

Name	Description	Required	Internal Name
Security Settings	Security settings for connections in the pool.	no	security-domain
Statistics Formatter	The fully qualified class name of the class to use for formatting managed connection pool statistics for this datasource. The class must implement the <code>org.jboss.resource.statistic.formatter.StatisticsFormatter</code> interface. The default is <code>"org.jboss.resource.statistic.pool.JBossDefaultSubPoolStatisticFormatter"</code> .	no	statistics-formatter
Type Mapping	The name of the corresponding type-mapping in <code>conf/standardjbosscomp-jdbc.xml</code> . The type mappings provided by default: DB2, InformixDB, MaxDB, MySQL, Oracle9i, PointBase, InterBase, Mimer SQL, McKoi, SapDB, DB2/400, SOLID, Hypersonic SQL, FirstSQL/J, MS SQLSERVER2000, MS SQLSERVER, Cloudscape, Derby, Firebird, PostgreSQL 8.0, PostgreSQL, Sybase, Ingres. Note, there may be custom type mappings defined in addition to these predefined mappings.	no	type-mapping
Use Java Context	Indicates whether the JNDI name should be bound under the "java" context, which causes the DataSource to only be accessible from within the JBossAS VM. The default is Yes.	no	use-java-context
Use Strict Min	Whether idle connections below the <code>min-pool-size</code> should be closed. The default is No.	no	use-strict-min

Name	Description	Required	Internal Name
Validate On Match	The validate-on-match element indicates whether or not connection level validation should be done when a connection factory attempts to match a managed connection for a given set. This is typically exclusive to the use of background validation. The default is Yes.	no	validate-on-match
Config Property	Properties to supply to the ManagedConnectionFactory (MCF) MBean service configuration.	no	config-property
Interleaving	If true, enable transaction interleaving if the DB vendor supports it (most do not). Can only be set to true if XA transactions are enabled. This property supersedes the "track-connection-by-tx" property from earlier versions of JBoss AS. The default is false.	no	interleaving
XA Resource Timeout	The maximum time, in minutes, an XA Resource can be idle before it is removed. 0 means no timeout. The default is 0.	no	xa-resource-timeout



### Note

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

## Operations

Table 2.231. Metrics

Name	Description
Flush	Flush the connections in the pool
List Formatted Sub Pool Statistics	Obtain a formatted sub pool statistics report
List Statistics	Obtain a statistics report

Name	Description
Test Connection	Test if a connection can be obtained - returns true if a connection was obtained, or false if not; NOTE: this operation will always return a status of Successful - the results of the operation must be inspected to see whether or not a connection was obtained

## Package Types

none

## 2.2.17. Web Application (WAR) Service

### Overview

**Table 2.232. Overview**

Description:	a standalone web application (WAR)
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.1, "JBossAS 4.x and EAP 4.x Server"](#)

### Child Resource Types

- » [Section 2.2.17.1, "Web Application Context Service"](#)

### Connection Properties

**Table 2.233.**

Name	Description	Required	Internal Name
Deployment Name	the name of this WAR	yes	deploymentName
Filename		yes	filename
Context Path	this WAR's context path (e.g. /admin-console)	yes	contextPath
Extension		yes	extension
Description Template		yes	descriptionTemplate
Deployment Type Name	The name of the item from the org.jboss.deployers.spi.management.KnownDeploymentTypes enum corresponding to this deployment's type.	yes	deploymentTypeName

**Note**

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

**Metrics****Table 2.234. Metrics**

Name	Type	Description	Internal Name
Path	trait	the absolute path of this WAR file or directory	custom.path
Exploded?	trait	whether this WAR is deployed exploded (i.e. as a directory)	custom.exploded
Context Root	trait	this context root of this WAR (e.g. jmx-console) - used as a unique path prefix for URLs corresponding to this WAR	contextRoot
Virtual Hosts	trait	the virtual host(s) to which this WAR is deployed	virtualHosts

**Note**

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

**Configuration Properties**

none

**Operations****Table 2.235. Metrics**

Name	Description
Start	starts this WAR
Stop	stops this WAR
Restart	stops and then restarts this WAR

**Package Types****Table 2.236. Package Types**

Name	Category	Description
WAR File	Deployable	

## 2.2.17.1. Web Application Context Service

### Overview

**Table 2.237. Overview**

Description:	a web application context
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- ✱ [Section 2.2.17, “Web Application \(WAR\) Service”](#)

### Child Resource Types

none

### Connection Properties

**Table 2.238.**

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Response Time Log File	the full path to the log file containing response-time stats for this webapp	no	responseTimeLogFile
Response Time Url Excludes	a space-delimited list of regular expressions specifying URLs that should be excluded from response-time stats collection	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions that should be applied to all URLs for which response-time stats are collected (e.g. <code> ^/dept/finance/.*/dept/finance/* </code> )	no	responseTimeUrlTransforms
Virtual Host	this WAR's virtual host (e.g. localhost)	yes	virtualHost



### Note

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



## Metrics

Table 2.239. Metrics

Name	Type	Description	Internal Name
Clustered	trait	True if this web application context is clustered	clustered
Virtual Host	trait	the virtual host with which this context is associated	virtualHost
Response Time	calltime	the minimum, maximum, and average response times for requests serviced by this webapp	responseTime
Currently Active Sessions	measurement	the number of sessions that are currently active for this WAR	activeSessions
Maximum Active Sessions	measurement	the maximum number of sessions that have been active for this WAR	maxActive
Created Sessions	measurement	the number of sessions created for this WAR	sessionCounter
Created Sessions per Minute	measurement	the number of sessions created for this WAR	sessionCounter
Expired Sessions	measurement	the number of expired sessions for this WAR	expiredSessions
Expired Sessions per Minute	measurement	the number of expired sessions for this WAR	expiredSessions
Rejected Sessions	measurement	the number of sessions rejected for this WAR	rejectedSessions
Rejected Sessions per Minute	measurement	the number of sessions rejected for this WAR	rejectedSessions
Average Session Alive Time	measurement	the average alive time of sessions for this WAR	sessionAverageAliveTime
Max Session Alive Time	measurement	the maximum alive time of sessions for this WAR	sessionMaxAliveTime
Minimum Response Time	measurement	the minimum response time for requests serviced by this WAR	Servlet.minimumResponseTime
Average Response Time	measurement	the average response time for requests serviced by this WAR	Servlet.averageResponseTime
Maximum Response Time	measurement	the maximum response time for requests serviced by this WAR	Servlet.maximumResponseTime
Total Response Time	measurement	the total response time for requests serviced by this WAR	Servlet.totalResponseTime
Total Response Time per Minute	measurement	the total response time for requests serviced by this WAR	Servlet.totalResponseTime

Name	Type	Description	Internal Name
Number of Requests Served	measurement	the number of requests serviced by this WAR	Servlet.requestCount
Number of Requests Served per Minute	measurement	the number of requests serviced by this WAR	Servlet.requestCount
Number of Error Responses	measurement	the number of error responses sent by this WAR	Servlet.errorCount
Number of Error Responses per Minute	measurement	the number of error responses sent by this WAR	Servlet.errorCount



## Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.2.18. XA Datasource Service

### Overview

Table 2.240. Overview

Description:	XA Datasources deployed in the instance of JBoss AS
Singleton:	no
Plugin:	JBossAS5

### Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

Table 2.241.

Name	Description	Required	Internal Name
Component Type		yes	componentType
Component Subtype		yes	componentSubtype
Component Name		yes	componentName
Template Name		yes	templateName
Component Name Property	The name of the Resource configuration property whose value should be used as the underlying ManagedComponent name when creating a new Resource of this type.	yes	componentNameProperty



### Note

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

## Metrics

Table 2.242. Metrics

Name	Type	Description	Internal Name
Run State	trait	Run State	runState
Pool JNDI Name	trait	the JNDI name of the connection pool for this datasource	poolJndiName
Available Connection Count	measurement	the maximum number of connections that are available	availableConnectionCount
Connection Count	measurement	the number of connections that are currently in the pool	connectionCount
Connection Created Count	measurement	the number of connections that have been created since the datasource was last started	connectionCreatedCount
Connection Destroyed Count	measurement	the number of connections that have been destroyed since the datasource was last started	connectionDestroyedCount
In Use Connection Count	measurement	the number of connections that are currently in use	inUseConnectionCount
Local Transaction	trait	Local Transaction	local-transaction

Name	Type	Description	Internal Name
Max Connections In Use Count	measurement	the most connections that have been simultaneously in use since this datasource was started	maxConnectionsInUseCount
Max Size	measurement	Max Size	maxSize
Min Size	measurement	Min Size	minSize



### Note

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

## Configuration Properties

Table 2.243.

Name	Description	Required	Internal Name
JNDI Name	The global JNDI Name under which to bind the datasource	yes	jndi-name
Username	The default username when creating a new connection.	no	user-name
Password	The default password when creating a new connection.	no	password
Minimum Pool Size	The minimum number of connections the pool should hold. The default is 0.	no	min-pool-size
Maximum Pool Size	The maximum number of connections the pool should hold. The default is 10.	no	max-pool-size
XA DataSource Class	The fully qualified name of the javax.sql.XADataSource implementation class.	yes	xa-datasource-class

Name	Description	Required	Internal Name
XA Datasource Properties	The properties to assign to the XADataSource implementation class. Each property is mapped onto the XADataSource implementation by looking for a JavaBeans style getter method for the property name. If found, the value of the property is set using the JavaBeans setter with the element text translated to the true property type using the <code>java.beans.PropertyEditor</code> for the type.	no	xa-datasource-properties
XA Resource Timeout	XA transaction timeout, in seconds (passed to <code>XAResource.setTimeout()</code> ) - default is zero which does not invoke the setter.	no	xa-resource-timeout
URL Property	For HA XA datasources, specifies the name of an XADataSource property that contains a list of URLs.	no	url-property
Allocation Retry	The number of times that allocating a connection should be tried before throwing an exception. The default is 0.	no	allocation-retry
Allocation Retry Wait Millis	The time in milliseconds to wait between retrying to allocate a connection. The default is 5000 (5 seconds).	no	allocation-retry-wait-millis
Background Validation	Specify if connections should be validated on a background thread versus being validated prior to use. Background validation is meant to reduce the overall load on the RDBMS system when validating a connection. The default is No.	no	background-validation

Name	Description	Required	Internal Name
Background Validation Millis	The interval, in milliseconds, at which the ConnectionValidator will run. Set to 0 to disable background validation. The default is 0.	no	background-validation-millis
Blocking Timeout in Milliseconds	Indicates the maximum time in milliseconds to block while waiting for a connection before throwing an exception. Note that this blocks only while waiting for a permit for a connection, and will never throw an exception if creating a new connection takes an inordinately long time. The default is 30000 (30 seconds).	no	blocking-timeout-millis
Idle Timeout	The maximum time, in minutes, a connection may be idle before being closed. The default is 30.	no	idle-timeout-minutes
Is Same RM Override Value	If set, unconditionally sets the boolean return value of <code>javax.transaction.xa.XAResource.isSameRM(XAResource)</code> .	no	isSameRM-override-value
Jmx Invoker Name	The ObjectName of the JMX Invoker MBean associated with this datasource.	no	jmx-invoker-name
Metadata	Metadata properties.	no	metadata
No Tx Separate Pools	If true, the datasource cannot reuse a connection outside a transaction once enlisted in a global transaction and vice-versa. The default is Yes.	no	no-tx-separate-pools
Prefill	Whether to attempt to prefill the connection pool to the minimum number of connections. NOTE: Only supporting pools (OnePool) support this feature. A warning can be found in the logs if the pool does not support this. The default is No.	no	prefill

Name	Description	Required	Internal Name
Security Settings	Security settings for connections in the pool.	no	security-domain
Statistics Formatter	The fully qualified class name of the class to use for formatting managed connection pool statistics for this datasource. The class must implement the <code>org.jboss.resource.statistic.formatter.StatisticsFormatter</code> interface. The default is <code>"org.jboss.resource.statistic.pool.JBossDefaultSubPoolStatisticFormatter"</code> .	no	statistics-formatter
Type Mapping	The name of the corresponding type-mapping in <code>conf/standardjbosscomp-jdbc.xml</code> . The type mappings provided by default: DB2, InformixDB, MaxDB, MySQL, Oracle9i, PointBase, InterBase, Mimer SQL, McKoi, SapDB, DB2/400, SOLID, Hypersonic SQL, FirstSQL/J, MS SQLSERVER2000, MS SQLSERVER, Cloudscape, Derby, Firebird, PostgreSQL 8.0, PostgreSQL, Sybase, Ingres. Note, there may be custom type mappings defined in addition to these predefined mappings.	no	type-mapping
Use Java Context	Indicates whether the JNDI name should be bound under the "java" context, which causes the DataSource to only be accessible from within the JBossAS VM. The default is Yes.	no	use-java-context
Use Strict Min	Whether idle connections below the <code>min-pool-size</code> should be closed. The default is No.	no	use-strict-min

Name	Description	Required	Internal Name
Validate On Match	The validate-on-match element indicates whether or not connection level validation should be done when a connection factory attempts to match a managed connection for a given set. This is typically exclusive to the use of background validation. The default is Yes.	no	validate-on-match
Check Valid Connection SQL	The SQL statement to use to check the validity of a pool connection.	no	check-valid-connection-sql
Connection Definition	The connection definition inside the RAR deployment uniquely identified by the connection factory interface, e.g. "javax.sql.DataSource".	no	connection-definition
Exception Sorter Class Name	The fully qualified name of a Java class implementing the org.jboss.resource.adapter.jdbc.ExceptionSorter interface that should be used to check if a JDBC exception should be broadcast.	no	exception-sorter-class-name
New Connection SQL	An SQL statement to execute whenever a new connection is added to the pool; this can be used to set the connection schema, etc.	no	new-connection-sql
Prepared Statement Cache Size	The number of prepared statements per connection to be kept open and reused in subsequent requests. They are stored in an LRU cache. Set to 0 to disable the cache. The default is 0.	no	prepared-statement-cache-size
Query Timeout	Any configured query timeout in seconds. A value of 0 means no timeout. The default is 0.	no	query-timeout



Name	Description	Required	Internal Name
Rar Name	The RAR deployment to associate with the connection manager MBean. e.g. jms-ra.rar or myapplication.ear#my.rar for nested rars.	no	rar-name
Set Tx Query Timeout	Whether to set the query timeout based on the time remaining until transaction timeout; any configured query timeout will be used if there is no transaction. The default is No.	no	set-tx-query-timeout
Share Prepared Statements	Should prepared statements be shared? The default is No.	no	share-prepared-statements
Stale Connection Checker Class Name	Fully qualified name of the Java class used to check if a connection has become stale.	no	stale-connection-checker-class-name
Track Statements	Whether to check for unclosed Statements and ResultSets when connections are returned to the pool. The default is "yes-no-warnings".	no	track-statements
Transaction Isolation	The Transaction Isolation level. The default setting is to use whichever isolation level is provided by default by the database.	no	transaction-isolation
Url Delimiter	Specifies the delimiter for URLs in the value of the connection-url property for HA datasources. The default is " ".	no	url-delimiter
Url Selector Strategy Class Name	The fully qualified class name of a Java class implementing the org.jboss.resource.adapter.jdbc.URLSelectorStrategy interface.	no	url-selector-strategy-class-name
Use Try Lock	Any configured timeout, in milliseconds, for internal locks on the resource adapter objects. A value of 0 means no timeout. The default is 0.	no	use-try-lock

Name	Description	Required	Internal Name
Valid Connection Checker Class Name	The fully qualified name of a Java class implementing the <code>org.jboss.resource.adapter.jdbc.ValidConnectionChecker</code> whose <code>pingDatabase</code> method should be used to check if a connection is still valid before handing it out from the pool.	no	valid-connection-checker-class-name
Interleaving	If true, enable transaction interleaving if the DB vendor supports it (most do not). This property supersedes the "track-connection-by-tx" property from earlier versions of JBoss AS. The default is false.	no	interleaving



### Note

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

## Operations

Table 2.244. Metrics

Name	Description
Flush	Flush the connections in the pool
List Formatted Sub Pool Statistics	Obtain a formatted sub pool statistics report
List Statistics	Obtain a statistics report
Test Connection	Test if a connection can be obtained - returns true if a connection was obtained, or false if not; NOTE: this operation will always return a status of Successful - the results of the operation must be inspected to see whether or not a connection was obtained

## Package Types

none

## 2.3. JBossAS7 Standalone Server (Tech Preview)

The JBoss AS 7 is available through a special, tech preview plug-in pack.



## Note

Secured AS7 is not supported in this tech preview. If the JBoss AS 7 server is running in secure mode, JBoss ON can detect the server but it cannot manage it.

To test AS 7 with JBoss ON, first remove the `security-realm="ManagementRealm"` flag from the HTTP interface element in the `AS7_installDir/standalone/configuration/standalone.xml` file:

```
<management-interfaces>
  <native-interface security-realm="ManagementRealm">
    <socket-binding native="management-native"/>
  </native-interface>
  <http-interface security-realm="ManagementRealm">
    <socket-binding http="management-http"/>
  </http-interface>
  ....
```

The correct configuration is:

```
<http-interface>
  <socket-binding http="management-http"/>
</http-interface>
```



## Warning

This resource is tech preview in JBoss Operations Network 3.0. This resource is not fully-supported. If you configure this resource in JBoss Operations Network 3.0, it must be uninventoried and re-added in later versions of JBoss Operations Network. It cannot be migrated. This means that you can lose monitoring data.

## Overview

Table 2.245. Overview

Description:	Standalone AS7 server
Singleton:	no
Plugin:	jboss-as-7

## Parent Resource Types

» [Chapter 1, Managed Platforms](#)

## Child Resource Types

none

## Autodiscovery Process Scans

Table 2.246. Metrics

Name	Query
StandaloneAS	process basename match=^java.*,arg org.jboss.as.s tandalone match=.*

## Connection Properties

Table 2.247.

Name	Description	Required	Internal Name
Log Event Sources		yes	logEventSources
Hostname		yes	hostname
Port		yes	port
User	Management user for a secured AS	no	user
Password	Password for the management user	no	password
Configuration	Running configuration	yes	config
Base directory	Base directory of the server installation	no	baseDir
Start Script	Script used to start the server. If the path is not absolute, it is relative to the base directory	yes	startScript
System Properties		yes	system-properties



### Note

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

## Metrics

Table 2.248. Metrics

Name	Type	Description	Internal Name
Number of management requests	measurement	Number of requests sent to the controller	_internal:mgmtRequests
Number of management requests per Minute	measurement	Number of requests sent to the controller	_internal:mgmtRequests
Time used for management requests	measurement	Total time for requests	_internal:requestTime
Time used for management requests per Minute	measurement	Total time for requests	_internal:requestTime
Maximum request time	measurement	Max time for a request since last metric get	_internal:maxTime

**Note**

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

**Configuration Properties****Table 2.249.**

Name	Description	Required	Internal Name
Installed extensions		no	*

**Note**

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

**Operations****Table 2.250. Metrics**

Name	Description
Reload	Make the server re-load the (changed) configuration. To load a different startup config use 'restart'
Start	Start the server by invoking its start script
Restart	Restart the server by shutting it down and invoking its start script
Shutdown	Shut down the server.

**Package Types**

none

**2.4. JBossAS7 Host Controller Server (Tech Preview)**

The JBoss AS 7 is available through a special, tech preview plug-in pack.



## Note

Secured AS7 is not supported in this tech preview. If the JBoss AS 7 server is running in secure mode, JBoss ON can detect the server but it cannot manage it.

To test AS 7 with JBoss ON, first remove the `security-realm="ManagementRealm"` flag from the HTTP interface element in the `AS7_installDir/domain/configuration/domain.xml` file:

```
<management-interfaces>
  <native-interface security-realm="ManagementRealm">
    <socket-binding native="management-native"/>
  </native-interface>
  <http-interface security-realm="ManagementRealm">
    <socket-binding http="management-http"/>
  </http-interface>
  ....
```

The correct configuration is:

```
<http-interface>
  <socket-binding http="management-http"/>
</http-interface>
```



## Warning

This resource is tech preview in JBoss Operations Network 3.0. This resource is not fully-supported. If you configure this resource in JBoss Operations Network 3.0, it must be uninventoried and re-added in later versions of JBoss Operations Network. It cannot be migrated. This means that you can lose monitoring data.

## Overview

**Table 2.251. Overview**

Description:	Domain controller (delegate) for this host
Singleton:	no
Plugin:	jboss-as-7

## Parent Resource Types

- » [Chapter 1, Managed Platforms](#)

## Child Resource Types

- » [Section 2.4.1, "DomainDeployment Service"](#)
- » [Section 2.4.2, "Host Server"](#)
- » [Section 2.4.3, "Profile Server"](#)

» [Section 2.4.4, “ServerGroup Server”](#)

## Autodiscovery Process Scans

Table 2.252. Metrics

Name	Query
HostController	process basename match=^java.* arg org.jboss.as.host-controller match=.*

## Connection Properties

Table 2.253.

Name	Description	Required	Internal Name
Log Event Sources		yes	logEventSources
Hostname	Host name of the domain API	yes	hostname
Port	Port of the domain API	yes	port
User	Management user for a secured Host controller	no	user
Password	Password for the management user	no	password
Domain Configuration	Running configuration (domain part)	yes	domainConfig
Host Configuration	Running configuration (host part)	yes	hostConfig
Base directory	Base directory of the server installation	no	baseDir
Start Script	Script used to start the server. If the path is not absolute, it is relative to the base directory	yes	startScript
Domain Host	Host name within the AS7 domain	no	domainHost



### Note

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

## Metrics

Table 2.254. Metrics

Name	Type	Description	Internal Name
Number of management requests	measurement	Number of requests sent to the controller	_internal:mgmtRequests

Name	Type	Description	Internal Name
Number of management requests per Minute	measurement	Number of requests sent to the controller	_internal:mgmtRequests
Time used for management requests	measurement	Total time for requests	_internal:requestTime
Time used for management requests per Minute	measurement	Total time for requests	_internal:requestTime
Maximum request time	measurement	Max time for a request since last metric get	_internal:maxTime



### Note

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

## Configuration Properties

Table 2.255.

Name	Description	Required	Internal Name
Installed extensions		no	*



### Note

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

## Operations

Table 2.256. Metrics

Name	Description
Add managed server	Add a new managed server
Remove managed server	Remove a managed server
Start this host controller	Start this Host-/Domaincontroller
Shut down this host controller	Stop this Host-/Domaincontroller

## Package Types

none

### 2.4.1. DomainDeployment Service

#### Overview

Table 2.257. Overview



Description:	
Singleton:	no
Plugin:	jboss-as-7

## Parent Resource Types

- ✱ [Section 2.4, “JBossAS7 Host Controller Server \(Tech Preview\)”](#)

## Child Resource Types

none

## Connection Properties

Table 2.258.

Name	Description	Required	Internal Name
Path		yes	path



### Note

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

## Metrics

none

## Configuration Properties

Table 2.259.

Name	Description	Required	Internal Name
Name		yes	name
Runtime Name		yes	runtime-name
Content		yes	content



### Note

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

## Operations

Table 2.260. Metrics

Name	Description
Deploy to Server-Group	Deploy this deployment to a server group

## Package Types

Table 2.261. Package Types

Name	Category	Description
File	Deployable	Deployments on this domain

## 2.4.2. Host Server

### Overview

Table 2.262. Overview

Description:	Host involved in this domain
Singleton:	no
Plugin:	jboss-as-7

### Parent Resource Types

- » [Section 2.4, “JBossAS7 Host Controller Server \(Tech Preview\)”](#)

### Child Resource Types

none

### Autodiscovery Process Scans

none

### Connection Properties

Table 2.263.

Name	Description	Required	Internal Name
Path		yes	path



### Note

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

### Metrics

none

### Configuration Properties

none

## Operations

**Table 2.264. Metrics**

Name	Description
Create server	Add a new server to this host.
Delete server	Deletes a server on this host.

## Package Types

none

### 2.4.3. Profile Server

#### Overview

**Table 2.265. Overview**

Description:	One profile in a domain. Profiles are assigned to server groups.
Singleton:	no
Plugin:	jboss-as-7

#### Parent Resource Types

- [Section 2.4, “JBossAS7 Host Controller Server \(Tech Preview\)”](#)

#### Child Resource Types

none

#### Autodiscovery Process Scans

none

#### Connection Properties

**Table 2.266.**

Name	Description	Required	Internal Name
Path		yes	path



#### 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

## 2.4.4. ServerGroup Server

### Overview

Table 2.267. Overview

Description:	Server groups on this domain
Singleton:	no
Plugin:	jboss-as-7

### Parent Resource Types

- » [Section 2.4, “JBossAS7 Host Controller Server \(Tech Preview\)”](#)

### Child Resource Types

none

### Autodiscovery Process Scans

none

### Connection Properties

Table 2.268.

Name	Description	Required	Internal Name
Path		yes	path



### Note

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

## Metrics

none

## Configuration Properties

**Table 2.269.**

Name	Description	Required	Internal Name
Profile	The profile name	yes	profile
Socket Binding Group		yes	socket-binding-group
Socket Binding Port Offset	The default offset to be added to the port values given by the socket binding group.	no	socket-binding-port-offset
Jvm		no	jvm



### Note

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

## Operations

none

## Package Types

none

## 2.5. JBossAS7 Managed Server (Tech Preview)

The JBoss AS 7 is available through a special, tech preview plug-in pack.



### Warning

This resource is tech preview in JBoss Operations Network 3.0. This resource is not fully-supported. If you configure this resource in JBoss Operations Network 3.0, it must be uninventoried and re-added in later versions of JBoss Operations Network. It cannot be migrated. This means that you can lose monitoring data.

## Overview

**Table 2.270. Overview**

Description:	
Singleton:	no
Plugin:	jboss-as-7

## Parent Resource Types

» [Chapter 1, Managed Platforms](#)

## Child Resource Types

none

## Autodiscovery Process Scans

Table 2.271. Metrics

Name	Query
HostController	process basename match=^java.*,arg org.jboss.as.host-controller match=.*
ManagedAS	process basename match=^java.*,arg org.jboss.as.server match=.*

## Connection Properties

Table 2.272.

Name	Description	Required	Internal Name
Log Event Sources		yes	logEventSources
Management host		yes	hostname
Management port		yes	port
Domain Host	Hostname in the domain	yes	domainHost
Server Group	Server Group this instance belongs to.	yes	group
Socket binding group	Socket bindings to use	yes	socket-binding-group
Port Offset	Offset to the base ports	yes	socket-binding-port-offset
Path		yes	path



### Note

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

## Metrics

Table 2.273. Metrics

Name	Type	Description	Internal Name
Server state	trait	Detailed server state	status

**Note**

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

**Configuration Properties**

none

**Operations****Table 2.274. Metrics**

Name	Description
Start	Start this server instance.
Stop	Stop this server instance.
Restart	Restart this server instance.

**Package Types**

none

**2.6. mod\_cluster Service****Overview****Table 2.275. Overview**

Description:	mod_cluster plugin
Singleton:	yes
Plugin:	mod_cluster

**Parent Resource Types**

- ✦ [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)
- ✦ [Section 2.2, “JBossAS 5.x Server and JBoss EAP 5.x”](#)
- ✦ [Section 3.4, “Tomcat Server”](#)

**Child Resource Types**

- ✦ [Section 2.6.1, “Catalina Service”](#)
- ✦ [Section 2.6.2, “Dynamic Load Balancer Factor Service”](#)
- ✦ [Section 2.6.3, “HA Service”](#)
- ✦ [Section 2.6.4, “HA Service Configuration Service”](#)
- ✦ [Section 2.6.5, “Load Metric Service”](#)

- » [Section 2.6.6, “Service”](#)
- » [Section 2.6.7, “Service Configuration Service”](#)
- » [Section 2.6.8, “Simple Load Balancer Factor Service”](#)
- » [Section 2.6.9, “Webapp Context Service”](#)

## Connection Properties

**Table 2.276.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Engine Object Name		yes	engineObjectName
Name Template		yes	nameTemplate
Modcluster Config File		yes	modclusterConfigFile



### Note

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

## Metrics

**Table 2.277. Metrics**

Name	Type	Description	Internal Name
Proxy Information	trait	Proxy Information	ProxyInformation



### Note

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

## Configuration Properties

none

## Operations

**Table 2.278. Metrics**

Name	Description
Reset the node	Move this application server out of an error state.
Refresh configuration	Refresh configuration for this application server.

## Package Types



none

## 2.6.1. Catalina Service

### Overview

**Table 2.279. Overview**

Description:	Catalina Service
Singleton:	yes
Plugin:	mod_cluster

### Parent Resource Types

- » [Section 2.6, "mod\\_cluster Service"](#)

### Child Resource Types

none

### Connection Properties

**Table 2.280.**

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



### Note

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

### Metrics

**Table 2.281. Metrics**

Name	Type	Description	Internal Name
Proxy Configuration	trait	Proxy Configuration	proxyConfiguration
Proxy Info	trait	Proxy Info	proxyInfo
Type of the modeled resource	trait	Type of the modeled resource	modelerType
Fully qualified class name of the managed object	trait	Fully qualified class name of the managed object	className
Enable autodiscovery of httpd servers.	trait	Enable autodiscovery of httpd servers.	advertise



## Note

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

## Configuration Properties

Table 2.282.

Name	Description	Required	Internal Name
Worker Timeout	Timeout to wait for an available worker (default is no wait).	yes	workerTimeout
Sticky Session	Enables sticky session for the cluster.	yes	stickySession
Sticky Session Remove	Remove session when the request cannot be routed to the right node for this cluster.	yes	stickySessionRemove
Smax	Maximum time on seconds for idle connections above smax.	yes	smax
Max Attempts	Maximum number of attempts to send the request to the backend server.	yes	maxAttempts
Advertise Security Key	Security key for discovery.	no	advertiseSecurityKey
Sticky Session Force	Return an error when the request cannot be routed to the right node.	yes	stickySessionForce
Balancer	Name of the balancer.	no	balancer
Flush Packets	Allows controlling flusing of packets.	yes	flushPackets
Socket Timeout	Connection timeout for communication with the proxy.	yes	socketTimeout
Advertise Port	Multicast port for discovery	no	advertisePort
Advertise Group Address	Multicast address for discovery.	no	advertiseGroupAddress
Flush Wait	Time in ms to wait before flushing packets.	yes	flushWait
Ping	Time in s to wait for a pong answer to a ping.	yes	ping

**Note**

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

**Operations****Table 2.283. Metrics**

Name	Description
Add a proxy	Add a proxy.
Remove a proxy	Remove a proxy.
Disable all webapps	Disable all webapps for all virtual hosts of this application server.
Enable all webapps	Enable all webapps for all virtual hosts of this application server.
Stop all webapps	Gracefully stops all webapps for all virtual hosts of this application server.

**Package Types**

none

**2.6.2. Dynamic Load Balancer Factor Service****Overview****Table 2.284. Overview**

Description:	Dynamic Load balancer factor for mod_cluster
Singleton:	yes
Plugin:	mod_cluster

**Parent Resource Types**

» [Section 2.6, “mod\\_cluster Service”](#)

**Child Resource Types**

none

**Connection Properties****Table 2.285.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Class Name		yes	className
Name Template		yes	nameTemplate

**Note**

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

**Metrics**

none

**Configuration Properties****Table 2.286.**

Name	Description	Required	Internal Name
Decay Factor	The number of historical load values used to determine load factor.	no	decayFactor
History	The exponential decay factor for historical load values.	no	history

**Note**

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

**Operations**

none

**Package Types**

none

**2.6.3. HA Service****Overview****Table 2.287. Overview**

Description:	HA Service
Singleton:	yes
Plugin:	mod_cluster

**Parent Resource Types**

✱ [Section 2.6, “mod\\_cluster Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.288.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Class Name		yes	className
Proxy Info Property		yes	proxyInfoProperty



### Note

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

## Metrics

**Table 2.289. Metrics**

Name	Type	Description	Internal Name
Master Node	trait	Master Node	MasterNode
Proxy Configuration	trait	Proxy Configuration	ProxyConfiguration
Proxy Info	trait	Proxy Info	ProxyInfo



### Note

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

## Configuration Properties

**Table 2.290.**

Name	Description	Required	Internal Name
Process Status Frequency	Process status frequency.	no	processStatusFrequency



### Note

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

## Operations

**Table 2.291. Metrics**

Name	Description
Disable domain	Disables all contexts on each node within the current domain. If the current domain is null, then all nodes are stopped.
Enable domain	Enable all contexts on each node within the current domain. If the current domain is null, then all nodes are stopped.
Stop domain	Gracefully stops all contexts on each node within the current domain. If the current domain is null, then all nodes are stopped.
Ping httpd	Ping httpd and determine whether each proxy is accessible and healthy. Returns the PING_RSP grouped by proxy address.
Ping node by JVM Route	Ping a node from httpd and returns the PING_RSP grouped by proxy address. Determines whether the node configured with the specified jvm route is accessible from each proxy returning the PING_RSP grouped by proxy address.
Ping node by address	Ping a node from httpd and returns the PING_RSP grouped by proxy address. Determines whether the node configured with the specified jvm route is accessible from each proxy returning the PING_RSP grouped by proxy address.
Add a proxy	Add a proxy.
Remove a proxy	Remove a proxy.
Disable all webapps	Disable all webapps for all virtual hosts of this application server.
Enable all webapps	Enable all webapps for all virtual hosts of this application server.
Stop all webapps	Gracefully stops all webapps for all virtual hosts of this application server.

## Package Types

none

### 2.6.4. HA Service Configuration Service

#### Overview

**Table 2.292. Overview**

Description:	HA Service Configuration
Singleton:	yes
Plugin:	mod_cluster

## Parent Resource Types

» [Section 2.6, “mod\\_cluster Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.293.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Class Name		yes	className
Dependency Class Name		yes	dependencyClassName
Proxy Info Property		yes	proxyInfoProperty



### Note

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

## Metrics

none

## Configuration Properties

**Table 2.294.**

Name	Description	Required	Internal Name
Master Per Load Balancing Group	Enable current node to be master in the load balancing group.	no	masterPerLoadBalancingGroup
Advertise	Enable autodiscovery of httpd servers.	no	advertise
Advertise Group Address	Multicast address on which to listen for advertisements.	yes	advertiseGroupAddress
Advertise Port	Multicast port for discovery	no	advertisePort
Advertise Interface	Multicast interface for discovery	no	advertiseInterface
Advertise Security Key	Security key for discovery.	no	advertiseSecurityKey
Proxy List	Comma separated list of address:port listing the httpd servers where mod_cluster is running.	no	proxyList

Name	Description	Required	Internal Name
Proxy URL	URL prefix to send with commands to mod_cluster. Default is no prefix.	no	proxyURL
Socket Timeout	Connection timeout for communication with the proxy.	no	socketTimeout
Excluded Contexts	Comma delimited list of contexts that should <i>*not*</i> be auto-registered with httpd. Contexts may be qualified by host using a colon, e.g. host1:context1. If no host is defined, localhost is assumed.	no	excludedContexts
Auto Enable Contexts	Toggle for context auto-enable during mod_cluster startup.	no	autoEnableContexts
Load Balancing Group	Load balancing group.	no	loadBalancingGroup
Flush Packets	Allows controlling flushing of packets.	no	flushPackets
Flush Wait	Time in ms to wait before flushing packets.	no	flushWait
Ping	Time in s to wait for a pong answer to a ping.	no	ping
Smax	Maximum time on seconds for idle connections above smax.	no	smax
Ttl	TTL	no	ttl
Node Timeout	Node timeout	no	nodeTimeout
Balancer	Name of the balancer	no	balancer
Sticky Session	Enables sticky session for the node.	yes	stickySession
Sticky Session Remove	Remove session when the request cannot be routed to the right node for this cluster.	yes	stickySessionRemove
Sticky Session Force	Return an error when the request cannot be routed to the right node.	yes	stickySessionForce
Worker Timeout	Timeout to wait for an available worker (default is no wait).	yes	workerTimeout
Max Attempts	Maximum number of attempts to send the request to the backend server.	yes	maxAttempts



Name	Description	Required	Internal Name
Ssl	Whether to use SSL to communicate with mod_cluster. Note this has nothing to do with handling of https requests by JBoss Web	yes	ssl
Ssl Ciphers	SSL ciphers.	no	sslCiphers
Ssl Protocol	SSL protocol.	no	sslProtocol
Ssl Certificate Encoding Algorithm	Certificate encoding algorithm.	no	sslCertificateEncodingAlgorithm
Ssl Key Store	SSL keystore.	no	sslKeyStore
Ssl Key Store Password	SSL keystore password.	no	sslKeyStorePassword
Ssl Key Store Type	SSL keystore type.	no	sslKeyStoreType
Ssl Key Store Provider	SSL keystore provider.	no	sslKeyStoreProvider
Ssl Trust Algorithm	Truststore algorithm.	no	sslTrustAlgorithm
Ssl Key Alias	Key alias.	no	sslKeyAlias
Ssl Crl File	Certificate revocation list.	no	sslCrlFile
Ssl Trust Max Cert Length	Trust max certificate length.	no	sslTrustMaxCertLength
Ssl Trust Store	Trust store file.	no	sslTrustStore
Ssl Trust Store Password	Trust store password.	no	sslTrustStorePassword
Ssl Trust Store Type	Trust store type.	no	sslTrustStoreType
Ssl Trust Store Provider	Trust store provider.	no	sslTrustStoreProvider



### Note

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

## Operations

none

## Package Types

none

## 2.6.5. Load Metric Service

### Overview

Table 2.295. Overview

Description:	Load Metric
Singleton:	no
Plugin:	mod_cluster

## Parent Resource Types

✱ [Section 2.6, “mod\\_cluster Service”](#)

## Child Resource Types

none

## Connection Properties

Table 2.296.

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



### Note

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

## Metrics

Table 2.297. Metrics

Name	Type	Description	Internal Name
Load	measurement	The current load of this metric as a percent of the metric's capacity.	Load



### Note

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

## Configuration Properties

Table 2.298.

Name	Description	Required	Internal Name
Weight	The significance of this load metric compared to the other metrics.	yes	weight
Capacity	Used to normalize the value returned by load expressed as a percentage of the capacity, such that: $0 < (\text{load}/\text{capacity}) < 1$	yes	capacity

**Note**

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

**Operations**

none

**Package Types**

none

**2.6.6. Service****Overview****Table 2.299. Overview**

Description:	Service
Singleton:	yes
Plugin:	mod_cluster

**Parent Resource Types**

» [Section 2.6, “mod\\_cluster Service”](#)

**Child Resource Types**

none

**Connection Properties****Table 2.300.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Class Name		yes	className
Proxy Info Property		yes	proxyInfoProperty

**Note**

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

**Metrics**

**Table 2.301. Metrics**

Name	Type	Description	Internal Name
Proxy Configuration	trait	Proxy Configuration	ProxyConfiguration
Proxy Info	trait	Proxy Info	ProxyInfo

**Note**

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

**Configuration Properties**

none

**Operations****Table 2.302. Metrics**

Name	Description
Ping httpd	Ping httpd and determine whether each proxy is accessible and healthy. Returns the PING_RSP grouped by proxy address.
Ping node by JVM Route	Ping a node from httpd and returns the PING_RSP grouped by proxy address. Determines whether the node configured with the specified jvm route is accessible from each proxy returning the PING_RSP grouped by proxy address.
Ping node by address	Ping a node from httpd and returns the PING_RSP grouped by proxy address. Determines whether the node configured with the specified jvm route is accessible from each proxy returning the PING_RSP grouped by proxy address.
Add a proxy	Add a proxy.
Remove a proxy	Remove a proxy.
Disable all webapps	Disable all webapps for all virtual hosts of this application server.
Enable all webapps	Enable all webapps for all virtual hosts of this application server.
Stop all webapps	Gracefully stops all webapps for all virtual hosts of this application server.

**Package Types**

none

**2.6.7. Service Configuration Service****Overview****Table 2.303. Overview**

Description:	Service Configuration
Singleton:	yes
Plugin:	mod_cluster

## Parent Resource Types

✱ [Section 2.6, “mod\\_cluster Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 2.304.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Class Name		yes	className
Dependency Class Name		yes	dependencyClassName
Proxy Info Property		yes	proxyInfoProperty



### Note

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

## Metrics

none

## Configuration Properties

**Table 2.305.**

Name	Description	Required	Internal Name
Advertise	Enable autodiscovery of httpd servers.	no	advertise
Advertise Group Address	Multicast address on which to listen for advertisements.	yes	advertiseGroupAddress
Advertise Port	Multicast port for discovery	no	advertisePort
Advertise Interface	Multicast interface for discovery	no	advertiseInterface
Advertise Security Key	Security key for discovery.	no	advertiseSecurityKey

Name	Description	Required	Internal Name
Proxy List	Comma separated list of address:port listing the httpd servers where mod_cluster is running.	no	proxyList
Proxy URL	URL prefix to send with commands to mod_cluster. Default is no prefix.	no	proxyURL
Socket Timeout	Connection timeout for communication with the proxy.	no	socketTimeout
Excluded Contexts	Comma delimited list of contexts that should *not* be auto-registered with httpd. Contexts may be qualified by host using a colon, e.g. host1:context1. If no host is defined, localhost is assumed.	no	excludedContexts
Auto Enable Contexts	Toggle for context auto-enable during mod_cluster startup.	no	autoEnableContexts
Load Balancing Group	Load balancing group.	no	loadBalancingGroup
Flush Packets	Allows controlling flushing of packets.	no	flushPackets
Flush Wait	Time in ms to wait before flushing packets.	no	flushWait
Ping	Time in s to wait for a pong answer to a ping.	no	ping
Smax	Maximum time on seconds for idle connections above smax.	no	smax
Ttl	TTL	no	ttl
Node Timeout	Node timeout	no	nodeTimeout
Balancer	Name of the balancer	no	balancer
Sticky Session	Enables sticky session for the node.	yes	stickySession
Sticky Session Remove	Remove session when the request cannot be routed to the right node for this cluster.	yes	stickySessionRemove
Sticky Session Force	Return an error when the request cannot be routed to the right node.	yes	stickySessionForce
Worker Timeout	Timeout to wait for an available worker (default is no wait).	yes	workerTimeout

Name	Description	Required	Internal Name
Max Attempts	Maximum number of attempts to send the request to the backend server.	yes	maxAttempts
Ssl	Whether to use SSL to communicate with mod_cluster. Note this has nothing to do with handling of https requests by JBoss Web	yes	ssl
Ssl Ciphers	SSL ciphers.	no	sslCiphers
Ssl Protocol	SSL protocol.	no	sslProtocol
Ssl Certificate Encoding Algorithm	Certificate encoding algorithm.	no	sslCertificateEncodingAlgorithm
Ssl Key Store	SSL keystore.	no	sslKeyStore
Ssl Key Store Password	SSL keystore password.	no	sslKeyStorePassword
Ssl Key Store Type	SSL keystore type.	no	sslKeyStoreType
Ssl Key Store Provider	SSL keystore provider.	no	sslKeyStoreProvider
Ssl Trust Algorithm	Truststore algorithm.	no	sslTrustAlgorithm
Ssl Key Alias	Key alias.	no	sslKeyAlias
Ssl Crl File	Certificate revocation list.	no	sslCrlFile
Ssl Trust Max Cert Length	Trust max certificate length.	no	sslTrustMaxCertLength
Ssl Trust Store	Trust store file.	no	sslTrustStore
Ssl Trust Store Password	Trust store password.	no	sslTrustStorePassword
Ssl Trust Store Type	Trust store type.	no	sslTrustStoreType
Ssl Trust Store Provider	Trust store provider.	no	sslTrustStoreProvider



### Note

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

## Operations

none

## Package Types

none

## 2.6.8. Simple Load Balancer Factor Service

### Overview

Table 2.306. Overview

Description:	Simple load balancer factor for mod_cluster
Singleton:	yes
Plugin:	mod_cluster

## Parent Resource Types

✱ [Section 2.6, “mod\\_cluster Service”](#)

## Child Resource Types

none

## Connection Properties

Table 2.307.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Class Name		yes	className
Name Template		yes	nameTemplate



### Note

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

## Metrics

none

## Configuration Properties

Table 2.308.

Name	Description	Required	Internal Name
Load Balance Factor	The load balance factor.	yes	loadBalanceFactor



### Note

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

## Operations

none

## Package Types



none

## 2.6.9. Webapp Context Service

### Overview

**Table 2.309. Overview**

Description:	Webapp Context
Singleton:	no
Plugin:	mod_cluster

### Parent Resource Types

- » [Section 2.6, "mod\\_cluster Service"](#)

### Child Resource Types

none

### Connection Properties

none

### Metrics

none

### Configuration Properties

none

### Operations

**Table 2.310. Metrics**

Name	Description
Disable webapp	Disable this webapp.
Stop webapp	Gracefully stops this webapp.
Enable webapp	Enable this webapp.

### Package Types

none

## 2.7. Hibernate Statistics Service

### Overview

**Table 2.311. Overview**

Description:	Statistics for Hibernate
Singleton:	no
Plugin:	Hibernate



## Note

In order to monitor Hibernate statistics via JON, the Hibernate Session Manager MBean must be deployed to an object name of the format **\_"Hibernate:application=%application%,type=statistics"\_**, and statistics must be enabled.

Some example code is provided below to register the Hibernate Session MBean within an EJB3 application.

```

public static void enableHibernateStatistics(EntityManager
entityManager)
{
    try
    {
        StatisticsService mBean = new StatisticsService();
        SessionFactory sessionFactory =
getHibernateSession(entityManager).getSessionFactory();
        mBean.setSessionFactory(sessionFactory);
        ObjectName objectName = new
ObjectName(HIBERNATE_STATISTICS_MBEAN_OBJECTNAME);
        MBeanServer jbossMBeanServer = getJBossMBeanServer();
        jbossMBeanServer.registerMBean(mBean, objectName);
        sessionFactory.getStatistics().setStatisticsEnabled(true);
    }
    catch (InstanceAlreadyExistsException iaee)
    {
        LOG.info("Duplicate MBean registration ignored: " +
HIBERNATE_STATISTICS_MBEAN_OBJECTNAME);
    }
    catch (Exception e)
    {
        LOG.warn("Couldn't register Hibernate statistics MBean.", e);
    }
}

private static Session getHibernateSession(EntityManager
entityManager) {
    Session session;
    if (entityManager.getDelegate() instanceof EntityManagerImpl) {
        EntityManagerImpl entityManagerImpl = (EntityManagerImpl)
entityManager.getDelegate();
        session = entityManagerImpl.getSession();
    } else {
        session = (Session) entityManager.getDelegate();
    }
    return session;
}

private static MBeanServer getJBossMBeanServer() {

```

```

List<MBeanServer> servers =
MBeanServerFactory.findMBeanServer(null);
MBeanServer jbossServer = null;
for (MBeanServer server : servers) {
    if ("jboss".equals(server.getDefaultDomain())) {
        jbossServer = server;
    }
}
if (jbossServer == null) {
    jbossServer = ManagementFactory.getPlatformMBeanServer();
}
return jbossServer;
}

```

See also [Publishing statistics through JMX](#) and [Enabling Hibernate statistics](#)

## Parent Resource Types

- [Section 2.10, “JMX Server”](#)
- [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)
- [Section 2.2, “JBossAS 5.x Server and JBoss EAP 5.x”](#)

## Child Resource Types

- [Section 2.7.1, “Hibernate Entity Service”](#)

## Connection Properties

Table 2.312.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Application	the Hibernate application name	yes	application



### Note

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

## Metrics

Table 2.313. Metrics

Name	Type	Description	Internal Name
Entity Insert Count	measurement	The global number of entity inserts since the statistics were reset	EntityInsertCount
Entity Insert Count per Minute	measurement	The global number of entity inserts since the statistics were reset	EntityInsertCount
Query Execution Max Time	measurement	The amount of time taken by the slowest recorded query since the statistics were reset	QueryExecutionMaxTime
Entity Update Count	measurement	The global number of entity updates since the statistics were reset	EntityUpdateCount
Entity Update Count per Minute	measurement	The global number of entity updates since the statistics were reset	EntityUpdateCount
Collection Update Count	measurement	The global number of collections updated since the statistics were reset	CollectionUpdateCount
Collection Update Count per Minute	measurement	The global number of collections updated since the statistics were reset	CollectionUpdateCount
Entity Load Count	measurement	The global number of entity loads since the statistics were reset	EntityLoadCount
Entity Load Count per Minute	measurement	The global number of entity loads since the statistics were reset	EntityLoadCount
Entity Fetch Count	measurement	The global number of entity fetches since the statistics were reset	EntityFetchCount
Entity Fetch Count per Minute	measurement	The global number of entity fetches since the statistics were reset	EntityFetchCount
Entity Delete Count	measurement	The global number of entity deletes since the statistics were reset	EntityDeleteCount
Entity Delete Count per Minute	measurement	The global number of entity deletes since the statistics were reset	EntityDeleteCount
Collection Recreate Count	measurement	The global number of collections recreated since the statistics were reset	CollectionRecreateCount
Collection Recreate Count per Minute	measurement	The global number of collections recreated since the statistics were reset	CollectionRecreateCount
Query Execution Count	measurement	The global number of queries executed since the statistics were reset	QueryExecutionCount

Name	Type	Description	Internal Name
Query Execution Count per Minute	measurement	The global number of queries executed since the statistics were reset	QueryExecutionCount
Flush Count	measurement	The global number of flushes executed by sessions (either implicit or explicit) since the statistics were reset	FlushCount
Flush Count per Minute	measurement	The global number of flushes executed by sessions (either implicit or explicit) since the statistics were reset	FlushCount
Collection Load Count	measurement	The global number of collections loaded since the statistics were reset	CollectionLoadCount
Collection Load Count per Minute	measurement	The global number of collections loaded since the statistics were reset	CollectionLoadCount
Successful Transaction Count	measurement	The global number of transactions known to have been successful since the statistics were reset	SuccessfulTransactionCount
Successful Transaction Count per Minute	measurement	The global number of transactions known to have been successful since the statistics were reset	SuccessfulTransactionCount
Query Cache Hit Count	measurement	The global number of cached queries successfully retrieved from cache since the statistics were reset	QueryCacheHitCount
Query Cache Hit Count per Minute	measurement	The global number of cached queries successfully retrieved from cache since the statistics were reset	QueryCacheHitCount
Collection Remove Count	measurement	The global number of collections removed since the statistics were reset	CollectionRemoveCount
Collection Remove Count per Minute	measurement	The global number of collections removed since the statistics were reset	CollectionRemoveCount

Name	Type	Description	Internal Name
Connect Count	measurement	The global number of connections asked by the sessions (the actual number of connections used may be much smaller depending whether you use a connection pool or not) since the statistics were reset	ConnectCount
Connect Count per Minute	measurement	The global number of connections asked by the sessions (the actual number of connections used may be much smaller depending whether you use a connection pool or not) since the statistics were reset	ConnectCount
Start Time	trait	The time when the statistics collection started or were last reset	StartTime
Second Level Cache Put Count	measurement	The global number of cacheable entities/collections put in the cache since the statistics were reset	SecondLevelCachePutCount
Second Level Cache Put Count per Minute	measurement	The global number of cacheable entities/collections put in the cache since the statistics were reset	SecondLevelCachePutCount
Query Cache Put Count	measurement	The global number of cacheable queries put in cache since the statistics were reset	QueryCachePutCount
Query Cache Put Count per Minute	measurement	The global number of cacheable queries put in cache since the statistics were reset	QueryCachePutCount
Session Open Count	measurement	The global number of sessions closed since the statistics were reset	SessionOpenCount
Session Open Count per Minute	measurement	The global number of sessions closed since the statistics were reset	SessionOpenCount
Transaction Count	measurement	The global number of transactions known to have completed since the statistics were reset	TransactionCount

Name	Type	Description	Internal Name
Transaction Count per Minute	measurement	The global number of transactions known to have completed since the statistics were reset	TransactionCount
Collection Fetch Count	measurement	The global number of collections fetched since the statistics were reset	CollectionFetchCount
Collection Fetch Count per Minute	measurement	The global number of collections fetched since the statistics were reset	CollectionFetchCount
Session Close Count	measurement	The global number of sessions closed since the statistics were reset	SessionCloseCount
Session Close Count per Minute	measurement	The global number of sessions closed since the statistics were reset	SessionCloseCount
Query Cache Miss Count	measurement	The global number of cached queries *not* found in cache since the statistics were reset	QueryCacheMissCount
Query Cache Miss Count per Minute	measurement	The global number of cached queries *not* found in cache since the statistics were reset	QueryCacheMissCount
Second Level Cache Miss Count	measurement	The global number of cacheable entities/collections not found in the cache and loaded from the database since the statistics were reset	SecondLevelCacheMissCount
Second Level Cache Miss Count per Minute	measurement	The global number of cacheable entities/collections not found in the cache and loaded from the database since the statistics were reset	SecondLevelCacheMissCount



### Note

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

## Configuration Properties

none

## Operations

Table 2.314. Metrics

Name	Description
Clear Statistics	Clear the collected statistics and begin collecting again
View Queries	View statistical information about queries executed by Hibernate

## Package Types

none

### 2.7.1. Hibernate Entity Service

#### Overview

**Table 2.315. Overview**

Description:	A Hibernate persistent entity
Singleton:	no
Plugin:	Hibernate

#### Parent Resource Types

» [Section 2.7, "Hibernate Statistics Service"](#)

#### Child Resource Types

none

#### Connection Properties

none

#### Metrics

**Table 2.316. Metrics**

Name	Type	Description	Internal Name
Load Count	measurement	The number of times this entity was loaded since the statistics were reset	loadCount
Update Count	measurement	The number of times this entity was updated since the statistics were reset	updateCount
Insert Count	measurement	The number of times this entity was inserted since the statistics were reset	insertCount
Delete Count	measurement	The number of times this entity was deleted since the statistics were reset	deleteCount



Name	Type	Description	Internal Name
Fetch Count	measurement	The number of times this entity was fetched since the statistics were reset	fetchCount
Optimistic Lock Failure Count	measurement	The number of StaleObjectStateExceptions for this entity that occurred since the statistics were reset	optimisticFailureCount



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.8. JBossCacheSubsystem Server

### Overview

Table 2.317. Overview

Description:	The JBoss Cache instances on this server
Singleton:	yes
Plugin:	JBossCache

### Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

- » [Section 2.8.1, “JBossCache Service”](#)

### Autodiscovery Process Scans

none

### Connection Properties

none

## Metrics

none

## Configuration Properties

none

## Operations

none

## Package Types

none

### 2.8.1. JBossCache Service

#### Overview

Table 2.318. Overview

Description:	Statistics for JBossCache
Singleton:	no
Plugin:	JBossCache



#### Note

Please note that the number of possible metrics varies depending on the configuration and flavour of Cache used.

#### Parent Resource Types

- » [Section 2.8, “JBossCacheSubsystem Server”](#)

#### Child Resource Types

- » [Section 2.8.1.1, “JGroupsChannel Service”](#)

#### Connection Properties

Table 2.319.

Name	Description	Required	Internal Name
Object Name		yes	objectName

Name	Description	Required	Internal Name
Is Tree Cache	Is this a TreeCache instance or a POJO Cache	yes	isTreeCache



## Note

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

## Metrics

Table 2.320. Metrics

Name	Type	Description	Internal Name
Number of Nodes	measurement	Number of Nodes	:numberOfNodes
Activations	measurement	Number of passivated nodes that have been activated.	ActivationInterceptor:activations
Cache Loader Loads	measurement	Number of nodes loaded through a cache loader.	CacheLoaderInterceptor:cacheLoaderLoads
Cache Loader Loads per Minute	measurement	Number of nodes loaded through a cache loader.	CacheLoaderInterceptor:cacheLoaderLoads
Cache Loader Misses	measurement	Number of unsuccessful attempts to load a node through a cache loader.	CacheLoaderInterceptor:cacheLoaderMisses
Cache Loader Misses per Minute	measurement	Number of unsuccessful attempts to load a node through a cache loader.	CacheLoaderInterceptor:cacheLoaderMisses
Cache Hits	measurement	Number of successful attribute retrievals.	CacheMgmtInterceptor:hits
Cache Hits per Minute	measurement	Number of successful attribute retrievals.	CacheMgmtInterceptor:hits
Cache Misses	measurement	Number of unsuccessful attribute retrievals.	CacheMgmtInterceptor:misses
Cache Misses per Minute	measurement	Number of unsuccessful attribute retrievals.	CacheMgmtInterceptor:misses
Hit-miss-ratio	measurement	Ratio of hits to hits and misses. A hit is a get attribute operation that results in an object being returned to the client. The retrieval may be from a cache loader if the entry isn't in the local cache.	CacheMgmtInterceptor:hitMissRatio
Read-write-ratio	measurement	Ratio of read operations to write operations. This is the ratio of cache hits and misses to cache stores.	CacheMgmtInterceptor:readWriteRatio

Name	Type	Description	Internal Name
Cache Stores	measurement	Number of attribute store operations.	CacheMgmtInterceptor:stores
Cache Stores per Minute	measurement	Number of attribute store operations.	CacheMgmtInterceptor:stores
Cache Evictions	measurement	Number of node evictions.	CacheMgmtInterceptor:evictions
Cache Evictions per Minute	measurement	Number of node evictions.	CacheMgmtInterceptor:evictions
Number of Attributes	measurement	Number of attributes currently cached.	CacheMgmtInterceptor:numberOfAttributes
Number of Nodes cached	measurement	Number of nodes currently cached.	CacheMgmtInterceptor:numberOfNodes
Elapsed Time	measurement	Number of seconds that the cache has been running.	CacheMgmtInterceptor:elapsedTime
Elapsed Time per Minute	measurement	Number of seconds that the cache has been running.	CacheMgmtInterceptor:elapsedTime
Time since reset	measurement	Number of seconds since the cache statistics have been reset.	CacheMgmtInterceptor:timeSinceReset
Time since reset per Minute	measurement	Number of seconds since the cache statistics have been reset.	CacheMgmtInterceptor:timeSinceReset
Average Read Time	measurement	Average time in milliseconds to retrieve a cache attribute, including unsuccessful attribute retrievals.	CacheMgmtInterceptor:averageReadTime
Average Write Time	measurement	Average time in milliseconds to write a cache attribute.	CacheMgmtInterceptor:averageWriteTime
Cache Loader Stores	measurement	Number of nodes written to the cache loader.	CacheStoreInterceptor:cacheLoaderStores
Cache Loader Stores per Minute	measurement	Number of nodes written to the cache loader.	CacheStoreInterceptor:cacheLoaderStores
Invalidations	measurement	Number of cached nodes that have been invalidated.	InvalidationInterceptor:invalidations
Invalidations per Minute	measurement	Number of cached nodes that have been invalidated.	InvalidationInterceptor:invalidations
Passivations	measurement	Number of cached nodes that have been passivated.	PassivationInterceptor:passivations
Passivations per Minute	measurement	Number of cached nodes that have been passivated.	PassivationInterceptor:passivations
Tx prepares	measurement	Number of transaction prepare operations performed.	TxInterceptor:prepares

Name	Type	Description	Internal Name
Tx prepares per Minute	measurement	Number of transaction prepare operations performed.	TxInterceptor:prepares
Tx commits	measurement	Number of transaction commit operations performed.	TxInterceptor:commits
Tx commits per Minute	measurement	Number of transaction commit operations performed.	TxInterceptor:commits
Tx rollbacks	measurement	Number of transaction rollback operations performed.	TxInterceptor:rollbacks
Tx rollbacks per Minute	measurement	Number of transaction rollback operations performed.	TxInterceptor:rollbacks



### Note

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

## Configuration Properties

Table 2.321.

Name	Description	Required	Internal Name
Flavor	Is this going to be a POJO Cache or a Tree Cache	yes	Flavour
Transaction Manager Lookup Class	What class should be used to get a transaction manager instance	yes	TransactionManagerLookupClass
Isolation Level	The isolation level for access to the cache (default is REPEATABLE_READ)	no	IsolationLevel
Node Locking Scheme	the node locking scheme for this cache (default is PESSIMISTIC)	no	NodeLockingScheme
Cache Mode	the cache mode - a cache can be configured to be either local (standalone) or clustered. If in a cluster, the cache can be configured to replicate changes, or to invalidate changes (default is LOCAL)	no	CacheMode

Name	Description	Required	Internal Name
Use Repl Queue	should a replication queue be used for asynchronous replication? (default is false)	no	UseReplQueue
Repl Queue Interval	Time in milliseconds for elements from the replication queue to be replicated. Only used if UseReplQueue is enabled. (default is 100)	no	ReplQueueInterval
Repl Queue Max Elements	Maximum number of elements which trigger replication (default is 10)	no	ReplQueueMaxElements
Cluster Name	Name of cluster. Needs to be the same for all clusters, in order to find each other	yes	ClusterName
Fetch State On Startup	Whether or not to fetch state on joining a cluster (default is true)	no	FetchStateOnStartup
Initial State Retrieval Timeout	Maximum number of milliseconds to wait until the initial state (i.e. the contents of the cache) are retrieved from existing members in a clustered environment	yes	InitialStateRetrievalTimeout
Sync Repl Timeout	Maximum number of milliseconds to wait until all responses for a synchronous call have been received.	yes	SyncReplTimeout
Lock Acquisition Timeout	Maximum number of milliseconds to wait for a lock acquisition.	yes	LockAcquisitionTimeout



### Note

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

## Operations

Table 2.322. Metrics

Name	Description
Reset Statistics	Resets all statistics
List associated MBeans	List all MBeans that form this Cache instance

## Package Types

none

### 2.8.1.1. JGroupsChannel Service

#### Overview

**Table 2.323. Overview**

Description:	The underlying JGroups channel for this cache instance
Singleton:	no
Plugin:	JBossCache

#### Parent Resource Types

✦ [Section 2.8.1, “JBossCache Service”](#)

#### Child Resource Types

none

#### Connection Properties

none

#### Metrics

none

#### Configuration Properties

none

#### Operations

none

#### Package Types

none

## 2.9. JBoss Cache Service 3

#### Overview

**Table 2.324. Overview**

Description:	The JBoss Cache instances on this server
Singleton:	no
Plugin:	JBossCache3

## Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

- » [Section 2.9.1, “Data Container Service”](#)
- » [Section 2.9.2, “Interceptor Service”](#)
- » [Section 2.9.3, “Lock Manager Service”](#)
- » [Section 2.9.4, “RegionManager Service”](#)
- » [Section 2.9.5, “RPC Manager Service”](#)
- » [Section 2.9.6, “Transaction Table Service”](#)
- » [Section 2.9.7, “Tx Interceptor Service”](#)

## Connection Properties

Table 2.325.

Name	Description	Required	Internal Name
Search String		yes	searchString



### Note

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Table 2.326. Metrics

Name	Type	Description	Internal Name
Cluster Config	trait	Cluster Config	ClusterConfig
Node Locking Scheme	trait	Node Locking Scheme	NodeLockingScheme
Expose Management Statistics?	trait	Expose Management Statistics?	ExposeManagementStatistics
Register JMX Resource?	trait	Register JMX Resource?	RegisterJmxResource
Cache Loader Configuration	trait	Cache Loader Configuration	CacheLoaderConfiguration
Multiplexer Stack	trait	Multiplexer Stack	MultiplexerStack
Replication Queue Max Elements	measurement	Replication Queue Max Elements	ReplQueueMaxElements
Number of Attributes	measurement	Number of Attributes	NumberOfAttributes
Cache Loader Config	trait	Cache Loader Config	CacheLoaderConfig
Cluster Name	trait	Cluster Name	ClusterName



Name	Type	Description	Internal Name
Inactive on Startup?	trait	Inactive on Startup?	InactiveOnStartup
Cache Mode	trait	Cache Mode	CacheMode
Isolation Level	trait	Isolation Level	IsolationLevel
Replication Version	trait	Replication Version	ReplicationVersion
Fetch In-Memory State?	trait	Fetch In-Memory State?	FetchInMemoryState
Initial State Retrieval Timeout	measurement	Initial State Retrieval Timeout	InitialStateRetrievalTimeout
Buddy Replication Config	trait	Buddy Replication Config	BuddyReplicationConfig
Replication Queue Interval	measurement	Replication Queue Interval	ReplQueueInterval
Use Replication Queue?	trait	Use Replication Queue?	UseReplQueue
Use Region-Based Marshalling?	trait	Use Region-Based Marshalling?	UseRegionBasedMarshalling
Lock Acquisition Timeout	measurement	Lock Acquisition Timeout	LockAcquisitionTimeout
Number of Nodes	measurement	Number of Nodes	NumberOfNodes
Sync Commit Phase?	trait	Sync Commit Phase?	SyncCommitPhase
Sync Replication Timeout	measurement	Sync Replication Timeout	SyncReplTimeout
Eviction Policy Config	trait	Eviction Policy Config	EvictionPolicyConfig
State	trait	State	State
State Retrieval Timeout	measurement	State Retrieval Timeout	StateRetrievalTimeout
Transaction Manager Lookup Class	trait	Transaction Manager Lookup Class	TransactionManagerLookupClass
Cluster Properties	trait	Cluster Properties	ClusterProperties



## Note

The Internal Name is what must be used to reference Traits in Dynamic Group Definition expressions.

## Configuration Properties

none

## Operations

Table 2.327. Metrics

Name	Description
Destroy this cache.	
Stop this cache.	
Create this cache.	
Start this cache.	
Print lock information.	
Print cache details.	
Print cache details as HTML.	

Name	Description
	Print configuration as plain text.
	Print lock info as HTML.
	Print configuration as HTML.

## Package Types

none

### 2.9.1. Data Container Service

#### Overview

**Table 2.328. Overview**

Description:	JBoss Cache Data Container
Singleton:	yes
Plugin:	JBossCache3

#### Parent Resource Types

» [Section 2.9, “JBoss Cache Service 3”](#)

#### Child Resource Types

none

#### Connection Properties

**Table 2.329.**

Name	Description	Required	Internal Name
Jmx Resource		yes	jmx-resource



#### Note

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

#### Metrics

none

#### Configuration Properties

none

#### Operations

Table 2.330. Metrics

Name	Description
Get the number of nodes.	Returns the number of nodes in the data container
Get the number of attributes.	Returns the number of nodes in the data container
Print details as plain text.	Prints details about the data container
Print details as HTML.	Prints details about the data container, formatted as HTML

## Package Types

none

## 2.9.2. Interceptor Service

### Overview

Table 2.331. Overview

Description:	JBoss Cache Interceptor
Singleton:	yes
Plugin:	JBossCache3

## Parent Resource Types

» [Section 2.9, “JBoss Cache Service 3”](#)

## Child Resource Types

none

## Connection Properties

Table 2.332.

Name	Description	Required	Internal Name
Jmx Resource		yes	jmx-resource



### Note

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Table 2.333. Metrics

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

Name	Type	Description	Internal Name
Evictions	measurement	the number of cache eviction operations	Evictions
Evictions per Minute	measurement	the number of cache eviction operations	Evictions
Hit/Miss Ratio	measurement	Hit/Miss Ratio	HitMissRatio
Read/Write Ratio	measurement	Read/Write Ratio	ReadWriteRatio
NumberOfNodes	measurement	the number of nodes in the cache	NumberOfNodes
Hits	measurement	the number of cache attribute hits	Hits
Hits per Minute	measurement	the number of cache attribute hits	Hits
Number Of Attributes	measurement	the number of cache attributes	NumberOfAttributes
Statistics Enabled	trait	Statistics Enabled	StatisticsEnabled
Elapsed Time	measurement	the time elapsed since the cache was started	ElapsedTime
Elapsed Time per Minute	measurement	the time elapsed since the cache was started	ElapsedTime
Time Since Reset	measurement	the time elapsed since the cache statistics were last reset	TimeSinceReset
Time Since Reset per Minute	measurement	the time elapsed since the cache statistics were last reset	TimeSinceReset
Misses	measurement	the number of cache attribute misses	Misses
Misses per Minute	measurement	the number of cache attribute misses	Misses
Average Write Time	measurement	the average amount of time per write operation	AverageWriteTime
Stores	measurement	the number of cache attribute put operations	Stores
Stores per Minute	measurement	the number of cache attribute put operations	Stores
Average Read Time	measurement	the average amount of time per read operation	AverageReadTime



### Note

The Internal Name is what must be used to reference Traits in Dynamic Group Definition expressions.

## Configuration Properties

none

## Operations

**Table 2.334. Metrics**

Name	Description
Reset Statistics	Reset all statistics.

## Package Types

none

## 2.9.3. Lock Manager Service

### Overview

Table 2.335. Overview

Description:	MVCC Lock Manager
Singleton:	yes
Plugin:	JBossCache3

### Parent Resource Types

» [Section 2.9, “JBoss Cache Service 3”](#)

### Child Resource Types

none

### Connection Properties

Table 2.336.

Name	Description	Required	Internal Name
Jmx Resource		yes	jmx-resource



### Note

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

### Metrics

Table 2.337. Metrics

Name	Type	Description	Internal Name
Concurrency level	measurement	The concurrency level that the MVCC Lock Manager has been configured with.	concurrency level
Locks held	measurement	The number of exclusive locks that are held.	locks held

**Note**

The Internal Name is what must be used to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations**

none

**Package Types**

none

**2.9.4. RegionManager Service****Overview****Table 2.338. Overview**

Description:	JBoss Cache RegionManager
Singleton:	yes
Plugin:	JBossCache3

**Parent Resource Types**

» [Section 2.9, “JBoss Cache Service 3”](#)

**Child Resource Types**

none

**Connection Properties****Table 2.339.**

Name	Description	Required	Internal Name
Jmx Resource		yes	jmx-resource

**Note**

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics**

Table 2.340. Metrics

Name	Type	Description	Internal Name
Number of Regions	measurement	the total number of regions	numRegions



### Note

The Internal Name is what must be used to reference Traits in Dynamic Group Definition expressions.

## Configuration Properties

none

## Operations

Table 2.341. Metrics

Name	Description
Dump Regions	Dump a list of all registered regions.

## Package Types

none

## 2.9.5. RPC Manager Service

### Overview

Table 2.342. Overview

Description:	JBoss Cache RPC Manager
Singleton:	yes
Plugin:	JBossCache3

### Parent Resource Types

- » [Section 2.9, "JBoss Cache Service 3"](#)

### Child Resource Types

none

### Connection Properties

Table 2.343.

Name	Description	Required	Internal Name
Jmx Resource		yes	jmx-resource

**Note**

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

**Metrics****Table 2.344. Metrics**

Name	Type	Description	Internal Name
RPC Enabled?	trait	whether or not the RPC Manager is used in this cache instance	Enabled
Failed Replications	measurement	the number of failed replications	ReplicationFailures
Local Address	trait	Local address	LocalAddressString
Statistics Enabled	trait	Statistics Enabled	StatisticsEnabled
Successful Replications	measurement	the number of successful replications	ReplicationCount
Success Ratio	trait	RPC call success ratio	SuccessRatio
Members	trait	cluster view	MembersString

**Note**

The Internal Name is what must be used to reference Traits in Dynamic Group Definition expressions.

**Configuration Properties**

none

**Operations****Table 2.345. Metrics**

Name	Description
Reset Statistics	Reset all statistics.

**Package Types**

none

**2.9.6. Transaction Table Service****Overview****Table 2.346. Overview**

Description:	JBoss Cache TransactionTable
--------------	------------------------------



Singleton:	yes
Plugin:	JBossCache3

## Parent Resource Types

✱ [Section 2.9, “JBoss Cache Service 3”](#)

## Child Resource Types

none

## Connection Properties

Table 2.347.

Name	Description	Required	Internal Name
Jmx Resource		yes	jmx-resource



### Note

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

## Metrics

Table 2.348. Metrics

Name	Type	Description	Internal Name
Number Of Registered Transactions	measurement	the number of registered transactions	numberOfRegisteredTransactions
Transaction Map	trait	a string representation of the transaction map	transactionMap



### Note

The Internal Name is what must be used to reference Traits in Dynamic Group Definition expressions.

## Configuration Properties

none

## Operations

Table 2.349. Metrics

Name	Description
Reset Statistics	Reset all statistics.

## Package Types

none

## 2.9.7. Tx Interceptor Service

### Overview

Table 2.350. Overview

Description:	JBoss Cache TxInterceptor
Singleton:	yes
Plugin:	JBossCache3

### Parent Resource Types

» [Section 2.9, “JBoss Cache Service 3”](#)

### Child Resource Types

none

### Connection Properties

Table 2.351.

Name	Description	Required	Internal Name
Jmx Resource		yes	jmx-resource



### Note

The Internal Name is what must be used to reference Configuration Properties in Dynamic Group Definition expressions.

### Metrics

Table 2.352. Metrics

Name	Type	Description	Internal Name
Commits	measurement	the number of transaction commits	Commits
Statistics Enabled?	trait	a String representation of the transaction map	StatisticsEnabled
Rollbacks	measurement	the number of transaction rollbacks	Rollbacks

Name	Type	Description	Internal Name
Prepares	measurement	the number of transaction prepares	Prepares
Number Of Syncs Registered	measurement	the number of transaction synchronizations currently registered	numberOfSyncsRegistered



### Note

The Internal Name is what must be used to reference Traits in Dynamic Group Definition expressions.

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.10. JMX Server

### Overview

**Table 2.353. Overview**

Description:	Generic JMX Server
Singleton:	no
Plugin:	JMX



## Note

In order to monitor your Java applications via JMX, you need to expose their MBeans to remote JMX clients. In order to do this, you must pass in some system properties when starting your application's Java virtual machine.

To run a JVM with JMX remoting enabled without authentication, you must pass in the following system properties:

- ✧ -Dcom.sun.management.jmxremote.port=19988
- ✧ -Dcom.sun.management.jmxremote.ssl=false
- ✧ -Dcom.sun.management.jmxremote.authenticate=false

You can require your remote JMX endpoint to demand authentication for clients to be able to connect to it. To run a JVM with JMX remoting enabled with password authentication:

- ✧ -Dcom.sun.management.jmxremote.port=19988
- ✧ -Dcom.sun.management.jmxremote.ssl=false
- ✧ -Dcom.sun.management.jmxremote.authenticate=true
- ✧ -Dcom.sun.management.jmxremote.password.file=/some/directory/jmxremote.password

Note that "jmxremote.password" must be read-only. On Windows, you must use "cacls" command to do this: **cacls /some/directory/jmxremote.password /P username:R**

A password file template is located at \$JRE\_HOME/lib/management/jmxremote.password.template. There is also an auth file that you can use to define other roles. For more information on setting this up and setting up SSL, see [Monitoring and Management Using JMX](#).

If you wish to expose your JBossAS 4 application server's MBeans over this remote JMX mechanism, you must pass in these extra properties, in addition to the properties specified above:

- ✧ -Djboss.platform.mbeanserver
- ✧ -Djavax.management.builder.initial=org.jboss.system.server.jmx.MBeanServerBuilderImpl

## Parent Resource Types

- ✧ [Chapter 1, Managed Platforms](#)

## Child Resource Types

- ✧ [Section 2.10.1, "java.util.logging Service"](#)
- ✧ [Section 2.10.2, "Operating System Service"](#)
- ✧ [Section 2.10.3, "Threading Service"](#)
- ✧ [Section 2.10.4, "VM Class Loading System Service"](#)
- ✧ [Section 2.10.5, "VM Compilation System Service"](#)
- ✧ [Section 2.10.6, "VM Memory System Service"](#)

## Autodiscovery Process Scans

Table 2.354. Metrics

Name	Query
java	process basename match=^java.*

## Connection Properties

Table 2.355.

Name	Description	Required	Internal Name
Type	The EMS connection type for this JMX Server	yes	type
Connector Address	The connection url in the form of a JMXServiceURL	yes	connectorAddress
Install URI	The installation path for the selected server type which will be used to find client libraries (if appropriate).	no	installURI
Principal	The login principal/username	no	principal
Credentials	The login credentials/password	no	credentials
Additional Class Path Entries	Comma-separated list of directories and filenames that contain resources and classes needed to communicate with the JMX Server and its MBeans. If you specify 'some/directory/*.jar', all jars found in the given directory will be added.	no	additionalClassPathEntries



### 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

### 2.10.1. java.util.logging Service

#### Overview

Table 2.356. Overview

Description:	Logging control for the java.util.logging subsystem
Singleton:	yes
Plugin:	JMX

#### Parent Resource Types

» [Section 2.10, “JMX Server”](#)

#### Child Resource Types

none

#### Connection Properties

Table 2.357.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Config Management Enabled	When false, configuration reading for this resource will fail.	yes	configManagementEnabled



#### Note

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

#### Metrics

none

#### Configuration Properties

Table 2.358.

Name	Description	Required	Internal Name
Appender List		yes	AppenderList

**Note**

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

**Operations**

none

**Package Types**

none

**2.10.2. Operating System Service****Overview****Table 2.359. Overview**

Description:	
Singleton:	yes
Plugin:	JMX

**Parent Resource Types**

» [Section 2.10. “JMX Server”](#)

**Child Resource Types**

none

**Connection Properties****Table 2.360.**

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****Table 2.361. Metrics**

Name	Type	Description	Internal Name
Free Physical Memory	measurement	The amount of free physical memory for the OS	FreePhysicalMemorySize
Free Swap Memory	measurement	The amount of free swap space for the OS	FreeSwapSpaceSize
Process CPU Time	measurement	The cpu time used by this process	ProcessCpuTime
Process CPU Time per Minute	measurement	The cpu time used by this process	ProcessCpuTime
Committed Virtual Memory	measurement	Size of virtual memory used by this process	CommittedVirtualMemorySize



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.10.3. Threading Service

### Overview

**Table 2.362. Overview**

Description:	Information on threading in the VM
Singleton:	yes
Plugin:	JMX

### Parent Resource Types

- » [Section 2.10, "JMX Server"](#)

### Child Resource Types

none

### Connection Properties

**Table 2.363.**



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



### Note

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

## Metrics

Table 2.364. Metrics

Name	Type	Description	Internal Name
Thread Count	measurement	Number of active threads in the system	ThreadCount
Peak Thread Count	measurement	Peak count of active threads in the system	PeakThreadCount
Total Started Thread Count	measurement	Count of threads started since system start	TotalStartedThreadCount
Daemon Thread Count	measurement	Count of threads marked as daemons in the system	DaemonThreadCount
Suspended Thread Count	measurement	Count of suspended threads	SuspendedThreadCount
Deadlocked Thread Count	measurement	Count of threads that are deadlocked waiting to acquire object monitors. This is a CPU-time consuming metric.	DeadLockedThreadCount



### Note

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

## Configuration Properties

Table 2.365.

Name	Description	Required	Internal Name
Thread Contention Monitoring Enabled		yes	ThreadContentionMonitoringEnabled
Thread Cpu Time Enabled		yes	ThreadCpuTimeEnabled

**Note**

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

**Operations****Table 2.366. Metrics**

Name	Description
Reset Peak Thread Metrics	Reset the peak number of threads
Find Monitor Deadlocked Threads	Finds cycles of threads that are in deadlock waiting to acquire object monitors
Thread Dump	Returns a summary of all live threads, including both daemon and non-daemon threads

**Package Types**

none

**2.10.4. VM Class Loading System Service****Overview****Table 2.367. Overview**

Description:	The class loading system of the Java virtual machine
Singleton:	yes
Plugin:	JMX

**Parent Resource Types**

» [Section 2.10, "JMX Server"](#)

**Child Resource Types**

none

**Connection Properties****Table 2.368.**

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

**Note**

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

**Metrics****Table 2.369. Metrics**

Name	Type	Description	Internal Name
Loaded Classes	measurement	The number of classes currently loaded in the VM	LoadedClassCount
Total Classes Loaded	measurement	The total number of classes loaded since the start of the VM	TotalLoadedClassCount
Total Classes Loaded per Minute	measurement	The total number of classes loaded since the start of the VM	TotalLoadedClassCount
Unloaded Classes	measurement	The total number of classes unloaded since the start of the VM	UnloadedClassCount
Unloaded Classes per Minute	measurement	The total number of classes unloaded since the start of the VM	UnloadedClassCount

**Note**

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

**Configuration Properties****Table 2.370.**

Name	Description	Required	Internal Name
Verbose	Output verbose information to the output stream to regarding class loading. Typically, a Java virtual machine implementation prints a message each time a class file is loaded.	yes	Verbose

**Note**

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

**Operations**

none

**Package Types**

none

**2.10.5. VM Compilation System Service****Overview****Table 2.371. Overview**

Description:	The compilation system of the Java virtual machine
Singleton:	yes
Plugin:	JMX

**Parent Resource Types**

» [Section 2.10, “JMX Server”](#)

**Child Resource Types**

none

**Connection Properties****Table 2.372.**

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

**Note**

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

**Metrics****Table 2.373. Metrics**

Name	Type	Description	Internal Name
Total Compilation Time	measurement	The approximate accumulated elapsed time spent in compilation	TotalCompilationTime



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.10.6. VM Memory System Service

### Overview

Table 2.374. Overview

Description:	The memory system of the Java virtual machine including both the heap and non-heap memory.
Singleton:	yes
Plugin:	JMX

### Parent Resource Types

- » [Section 2.10, “JMX Server”](#)

### Child Resource Types

- » [Section 2.10.6.1, “Garbage Collector Service”](#)
- » [Section 2.10.6.2, “Memory Pool Service”](#)

### Connection Properties

Table 2.375.

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



## Note

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

## Metrics

**Table 2.376. Metrics**

Name	Type	Description	Internal Name
Heap Usage	measurement	Current heap memory usage	{HeapMemoryUsage.used}
Heap Committed	measurement	Current heap memory allocated. This amount of memory is guaranteed for the Java virtual machine to use	{HeapMemoryUsage.committed}
Non-Heap Usage	measurement	Current memory usage outside the heap	{NonHeapMemoryUsage.used}
Non-Heap Committed	measurement	Current memory allocated outside the heap. This amount of memory is guaranteed for the Java virtual machine to use	{NonHeapMemoryUsage.committed}
Objects Pending Finalization	measurement	The approximate number of objects for which finalization is pending.	ObjectPendingFinalizationCount
Heap Initial Size	trait	The amount of heap that the Java virtual machine initially requests from the operating system	{HeapMemoryUsage.init}
Heap Maximum Size	trait	Maximum amount of heap that can be used for memory management. This amount of memory is not guaranteed to be available if it is greater than the amount of committed memory. The Java virtual machine may fail to allocate memory even if the amount of used memory does not exceed this maximum size.	{HeapMemoryUsage.max}
Non-Heap Initial Size	trait	The amount of non-heap memory that the Java virtual machine initially requests from the operating system	{NonHeapMemoryUsage.init}

Name	Type	Description	Internal Name
Non-Heap Maximum Size	trait	Maximum amount of non-heap memory that can be used for memory management. This amount of memory is not guaranteed to be available if it is greater than the amount of committed memory. The Java virtual machine may fail to allocate memory even if the amount of used memory does not exceed this maximum size.	{NonHeapMemoryUsage.max}



### Note

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

## Configuration Properties

Table 2.377.

Name	Description	Required	Internal Name
Verbose	Output verbose information to the output stream to regarding Memory. Typically, a Java virtual machine implementation prints a message when it frees memory through garbage collection.	yes	Verbose



### Note

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

## Operations

Table 2.378. Metrics

Name	Description
Run Garbage Collection	Runs the garbage collector.

## Package Types

none

### 2.10.6.1. Garbage Collector Service

#### Overview

**Table 2.379. Overview**

Description:	A garbage collector that collects one or more memory pool.
Singleton:	no
Plugin:	JMX

#### Parent Resource Types

- » [Section 2.10.6, “VM Memory System Service”](#)

#### Child Resource Types

none

#### Connection Properties

**Table 2.380.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Name	The garbage collector's name	yes	name



#### Note

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

#### Metrics

**Table 2.381. Metrics**

Name	Type	Description	Internal Name
Collection Count	measurement	Number of collections	CollectionCount
Collection Count per Minute	measurement	Number of collections	CollectionCount
Collection Time	measurement	The amount of time spent in collection	CollectionTime
Collection Time per Minute	measurement	The amount of time spent in collection	CollectionTime



Name	Type	Description	Internal Name
Memory Pool Names	trait	The names of the memory pools used by this type of garbage collector	MemoryPoolNames



### Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 2.10.6.2. Memory Pool Service

### Overview

Table 2.382. Overview

Description:	A memory pool represents the memory resource managed by the Java virtual machine and is managed by one or more memory managers.
Singleton:	no
Plugin:	JMX

### Parent Resource Types

- » [Section 2.10.6, “VM Memory System Service”](#)

### Child Resource Types

none

### Connection Properties

Table 2.383.

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

Name	Description	Required	Internal Name
Name	The memory pool's name	yes	name



### Note

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

## Metrics

Table 2.384. Metrics

Name	Type	Description	Internal Name
Used	measurement	Current memory usage	{Usage.used}
Committed	measurement	Current memory allocated	{Usage.committed}
Initial Size	trait	The amount of memory that the Java virtual machine initially requests from the operating system	{Usage.init}
Maximum Size	trait	Maximum amount of memory that can be used for memory management. This amount of memory is not guaranteed to be available if it is greater than the amount of committed memory. The Java virtual machine may fail to allocate memory even if the amount of used memory does not exceed this maximum size.	{Usage.max}
Memory Manager Names	trait	Garbage collectors for this space	MemoryManagerNames
Type	trait	Pool location	Type



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 2.11. JMS Manager Service

### Overview

Table 2.385. Overview

Description:	
Singleton:	yes
Plugin:	HornetQ

### Parent Resource Types

- ✦ [Section 2.2, “JBossAS 5.x Server and JBoss EAP 5.x”](#)

### Child Resource Types

- ✦ [Section 2.11.1, “JMS Connection Factory Service”](#)
- ✦ [Section 2.11.2, “JMS Queue Service”](#)
- ✦ [Section 2.11.3, “JMS Topic Service”](#)

### Connection Properties

none

### Metrics

Table 2.386. Metrics

Name	Type	Description	Internal Name
Provider Name	trait	The JMS Provider	provider
Is Started	trait	The HornetQ version	started



#### Note

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

### Configuration Properties

none

## Operations

**Table 2.387. Metrics**

Name	Description
List Remote Addresses	List all remote addresses connected to HornetQ.
List Remote Addresses	List all remote addresses connected to HornetQ that match an ip address.
Close Connection	Closes all the connections for the given IP Address.
List connections	List all the connection IDs.
List sessions	List the sessions for the given connectionID.
Enable Message Counters	Enable Message Counters.
Disable Message Counters	Disable Message Counters.
Reset All MessageCounters	Reset All MessageCounters.
Reset All Message Counter Histories	Reset All Message Counter Histories.

## Package Types

none

### 2.11.1. JMS Connection Factory Service

#### Overview

**Table 2.388. Overview**

Description:	
Singleton:	no
Plugin:	HornetQ

#### Parent Resource Types

✦ [Section 2.11, "JMS Manager Service"](#)

#### Child Resource Types

none

#### Connection Properties

none

#### Metrics

**Table 2.389. Metrics**

Name	Type	Description	Internal Name
Name	trait	name of this connection factory	getName
JNDI Bindings	trait	JNDI Bindings of this connection factory	getJNDIBindings



## Note

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

## Configuration Properties

Table 2.390.

Name	Description	Required	Internal Name
Connection Factory Name	Name of the connection factory to deploy	yes	name
supports high availability	whether or not this connection factory will support high availability.	no	ha
use discovery	whether or not to use connectors or discovery.	no	useDiscovery
the type of factory	the connection factory type.	no	cfType
Connectors to live servers	comma-separated list of either connector names or a discovery group name.	no	liveTransportClassNames
JNDI Bindings	comma-separated list of JNDI bindings (use '&comma;' if you need to use commas in your jndi name).	no	liveTransportParams
Client ID	Client ID for connections created by this connection factory	no	ClientID
Dups OK Batch Size	batch size (in bytes) between acknowledgements when using DUPS_OK_ACKNOWLEDGE mode	yes	DupsOKBatchSize
Transaction Batch Size	batch size (in bytes) between acknowledgements when using a transacted session	yes	TransactionBatchSize
Client Failure Check Period	period used, in milliseconds to check if a client has failed to receive pings from the server	yes	ClientFailureCheckPeriod
Connection TTL	connection time-to-live (in milliseconds)	yes	ConnectionTTL
Call Timeout	blocking calls timeout (in milliseconds)	yes	CallTimeout

Name	Description	Required	Internal Name
Consumer Window Size	window size (in bytes) used for consumer flow control	yes	ConsumerWindowSize
Consumer Max Rate	maximum rate of message consumption (in messages per seconds), -1 means no rate set.	yes	ConsumerMaxRate
Confirmation Window Size	size (in bytes) for the confirmation window of clients using this connection factory, -1 means no window.	yes	ConfirmationWindowSize
Producer Max Rate	maximum rate of message production (in messages per seconds), -1 means no rate set.	yes	ProducerMaxRate
Producer Window Size	window size (in bytes) used for producer flow control, -1 means no window.	yes	ProducerWindowSize
Cache Large Messages Client	Whether consumers created through this factory will cache large messages in temporary files	yes	CacheLargeMessagesClient
Minimum Large Message Size	message size threshold (in bytes) before treating messages as large messages	yes	MinLargeMessageSize
Block On Non Durable Send	whether producers will block while sending non-durable messages or send them asynchronously	yes	BlockOnNonDurableSend
Block On Acknowledge	whether consumers will block while sending message acknowledgements or send them asynchronously	yes	BlockOnAcknowledge
Block On Durable Send	whether producers will block while sending persistent messages or send them asynchronously	yes	BlockOnDurableSend
Auto Group	whether producers will automatically assign a group ID to their messages	yes	AutoGroup

Name	Description	Required	Internal Name
Pre Acknowledge	whether messages will pre-acknowledged on the server before they are sent to the consumers or not	yes	PreAcknowledge
Retry Interval	interval (in milliseconds) to retry connections created by this factory after failure	yes	RetryInterval
Maximum Retry Interval	maximum retry interval (in milliseconds)	yes	MaxRetryInterval
Retry Interval Multiplier	multiplier to apply to successive retry intervals	yes	RetryIntervalMultiplier
Reconnect Attempts	maximum number of attempts to retry connection in case of failure	yes	ReconnectAttempts
Scheduled Thread Pool Max Size	maximum size of the scheduled thread pool	yes	ScheduledThreadPoolMaxSize
Thread Pool Max Size	maximum size of the thread pool, -1 means unlimited	yes	ThreadPoolMaxSize
Group ID	group ID that will be eventually set on each message, default is no group id.	no	GroupID
Initial Message Packet Size	initial size (in bytes) of messages created through this factory	yes	InitialMessagePacketSize
Use Global Pools	whether this factory will use global thread pools (shared among all the factories in the same JVM) or its own pools	yes	UseGlobalPools
Connection Load Balancing Policy Class Name	class name of the connection load balancing policy	yes	ConnectionLoadBalancingPolicyClassName



### Note

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

### Operations

none

### Package Types

none

## 2.11.2. JMS Queue Service

### Overview

**Table 2.391. Overview**

Description:	
Singleton:	no
Plugin:	HornetQ

### Parent Resource Types

- » [Section 2.11, "JMS Manager Service"](#)

### Child Resource Types

none

### Connection Properties

none

### Metrics

**Table 2.392. Metrics**

Name	Type	Description	Internal Name
Name	trait	name of this destination	getName
JNDI Binding	trait	JNDI Binding of this destination	getJNDIBindings
Address	trait	Address of this destination	getAddress
Temporary	trait	If this destination is temporary	isTemporary
Message Count	measurement	number of messages currently held in this queue awaiting delivery	getMessageCount
Scheduled Message Count	measurement	number of scheduled messages in this queue awaiting scheduled delivery	getScheduledCount
Consumer Count	measurement	number of consumers currently consuming messages from this queue	getConsumerCount
Delivering Count	measurement	number of messages that this queue is currently delivering to its consumers that have not been acknowledged	getDeliveringCount



Name	Type	Description	Internal Name
Messages Added	measurement	number of messages added to this queue since it was initially created	getMessagesAdded
Paused	trait	Is the queue currently paused	isPaused



### Note

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

## Configuration Properties

Table 2.393.

Name	Description	Required	Internal Name
Name	The name of the queue	yes	name
JNDI Name	comma-separated list of JNDI bindings (use ',' if u need to use commas in your jndi name)	yes	jndiBindings
Dead Letter Address	The address to route messages to once the message has been delivered more than the configured number of times. This is specified by 'Max Delivery Attempts'. Default is no dead letter address	no	dla
Expiry Address	The Address to route messages to once they have expired. Default is no Expiry Address	no	expiryAddress
Max Size of Address	The maximum size in bytes of messages that can be delivered to this queue. -1 means no limit, if limit is set then 'Address Full Message Policy' specifies what should happen	yes	maxSize
Page Size	The size in bytes that an address can reach before paging starts. -1 means no limit.	yes	pageSize
Page Cache Max Size	The max number of pages in the soft memory cache.	yes	maxDeliveryAttempts

Name	Description	Required	Internal Name
Max Delivery Attempts	The maximum time to attempt delivery of a message to a consumer, once hit the message is routed to which ever address is specified by 'Dead Letter Address'	yes	maxDeliveryAttempts
Redelivery Delay	The delay (in milliseconds) before re routing a message to this Address after an unsuccessful delivery attempt has occurred. default 0 means no delay	yes	redeliveryDelay
Last Value Queue	Is this queue a last value queue. A last value queue can only ever contain a single message for each value for the message property '_HQ_LVQ_NAME'.	yes	lastValueQueue
Redistribution Delay	How long to wait (in milliseconds) before redistributing messages to another node when clustered when a queue has no consumers. Default -1 means do not re distribute.	yes	redistributionDelay
Send To dead letter address on no route	Whether or not messages routed to this address gets sent to dead letter address when no consumers are available	yes	sendToDLAOnNoRoute
Address Full Message Policy	The policy to use when this Address is full. PAGE means that the message will be paged, DROP means that messages are just dropped and BLOCK means that the client will block on send until the queue clears some messages	yes	addressFullMessagePolicy
Roles	These are the roles for this queue. The 'name' of the role, 'send' allows a producer to send a message, 'consume' allows a consumer to receive a message.	yes	roles



## Note

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

## Operations

**Table 2.394. Metrics**

Name	Description
Remove Messages	Remove all the messages from this queue.
List Messages	list all the messages currently in this queue.
Count Messages	Returns the number of the messages in the queue.
Remove Message	Remove the message corresponding to the given messageID.
Expire Messages	Expires messages.
Expire Message	Expire the message corresponding to the given messageID.
Send Message to dead letter address	Send the message corresponding to the given messageID to this queue's Dead Letter Address.
Send Messages to dead letter address	Send the messages corresponding to the given filter to this queue's Dead Letter Address.
Change Message Priority	Change the priority of the message corresponding to the given messageID.
Change Messages Priority	Change the priority of the messages corresponding to the given filter.
Move Message	Move the message corresponding to the given messageID to another queue.
Move Messages	Move the messages corresponding to the given filter.
List Message Counter	List the message counters for this queue. This will show statistics for the queue
Reset Message Counter	Reset the message counters.
List Message Counter in HTML	List the message counters in HTML.
List Message Counter History	List the message counters history.
List Message Counter History in HTML	List the message counters history in HTML.
Pause the Queue	Pause the Queue. If the queue is paused no messages can be routed to it or consumed from it.
Restart the Queue	Restart the Queue from its paused state.

## Package Types

none

### 2.11.3. JMS Topic Service

#### Overview

**Table 2.395. Overview**

Description:	
Singleton:	no
Plugin:	HornetQ

## Parent Resource Types

✱ [Section 2.11, “JMS Manager Service”](#)

## Child Resource Types

none

## Connection Properties

none

## Metrics

**Table 2.396. Metrics**

Name	Type	Description	Internal Name
Name	trait	name of this destination	getName
JNDI Binding	trait	JNDI Binding of this destination	getJNDIBindings
Address	trait	Address of this destination	getAddress
Temporary	trait	If this destination is temporary	isTemporary
Subscription Count	measurement	number of (durable and non-durable) subscribers for this topic	getSubscriptionCount
Durable Subscription Count	measurement	number of durable subscribers for this topic	getDurableSubscriptionCount
Non Durable Subscription Count	measurement	number of non-durable subscribers for this topic	getNonDurableSubscriptionCount
Message Count	measurement	number of messages for all subscribers for this topic	getMessageCount
Durable Message Count	measurement	number of messages for all durable subscribers for this topic	getDurableMessageCount
Non Durable Message Count	measurement	number of messages for all non-durable subscribers for this topic	getNonDurableMessageCount



### Note

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

## Configuration Properties

Table 2.397.

Name	Description	Required	Internal Name
Name	The Name of the topic to deploy	yes	name
JNDI Name	comma-separated list of JNDI bindings (use ',' if u need to use commas in your jndi name)	yes	jndiBindings
Dead Letter Address	The address to route messages to once the message has been delivered more than the configured number of times. This is specified by 'Max Delivery Attempts'. The default is no dead letter address	no	dla
Expiry Address	The Address to route messages to once they have expired. The default is no expiry address	no	expiryAddress
Max Size of Address	The maximum size in bytes of messages that can be delivered to this queue. -1 means no limit, if limit is set then 'Address Full Message Policy' specifies what should happen	yes	maxSize
Page Size	The size in bytes an address can reach before paging occurs	yes	pageSize
Page Cache Max Size	The max number of pages in the soft memory cache.	yes	maxDeliveryAttempts
Max Delivery Attempts	The maximum time to attempt delivery of a message to a consumer, once hit the message is routed to which ever address is specified by 'Dead Letter Address'	yes	maxDeliveryAttempts
Redelivery Delay	The delay (in milli seconds) before re routing a message to this Address after an unsuccessful delivery attempt has occurred. default 0 means no delay	yes	redeliveryDelay

Name	Description	Required	Internal Name
Last Value Queue	Is this queue a last value queue. A last value queue can only ever contain a single message for each value for the message property '_HQ_LVQ_NAME'.	yes	lastValueQueue
Redistribution Delay	How long to wait (in milli seconds) before redistributing messages to another node when clustered when a queue has no consumers. Default -1 means do not re distribute.	yes	redistributionDelay
Send To dead letter address on no route	Whether or not messages routed to this address gets sent to dead letter address when no consumers are available	yes	sendToDLAOnNoRoute
Address Full Message Policy	The policy to use when this Address is full. PAGE means that the message will be paged, DROP means that messages are just dropped and BLOCK means that the client will block on send until the queue clears some messages	yes	addressFullMessagePolicy
Roles	These are the role defined for this topic. The 'name' of the role, 'send' allows a producer to send a message, 'consume' allows a consumer or subscriber to receive a message. The create/delete (non) durable subscriber specifies whether the queue representing the subscription can be created or deleted	yes	roles



### Note

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

## Operations

**Table 2.398. Metrics**

Name	Description
List all Subscriptions	Lists all the subscriptions for this topic (both durable and non-durable).
List all Durable Dubscriptions	Lists all the durable subscriptions for this topic.
List all non Durable Subscriptions	Lists all the non-durable subscriptions for this topic.
List all Messages	list all the messages.
List Messages for Subscription	Count the number of messages matching the filter for the given subscription.
Drop Durable Subscription	Drop a durable subscription.
Drop Durable Subscriptions	Drop all durable subscription.

## Package Types

none

## Chapter 3. Base Server Resources

There are certain server types that are supported by default in JBoss Operations Network, both for JBoss and non-JBoss resource types.

### 3.1. Apache

#### 3.1.1. Configuring Apache for Monitoring

JBoss Operations Network uses SNMP to monitor an Apache server for things like availability. JBoss ON can also monitor URLs hosted by the Apache server and return response time metrics for each URL.

For JBoss Operations Network to gather metrics about the Apache web server or its URL, the appropriate module (SNMP or Response Time) must be configured in the Apache server. Both JBoss ON modules are Apache Dynamically Shared Object (DSO), so the general implementation for these modules is similar to deploying other Apache modules:

1. Make sure the Apache server was compiled with DSO support.
2. Compile and install the module.
3. Configure the Apache server to use the module.
4. Restart the Apache server.

##### 3.1.1.1. Configuring the Response Time Module for Apache 2.x

To collect response time metrics for each URL for an Apache server, the Response Time module must be configured on that Apache server.





## Important

To use the Response Time module, the Apache server needs to have been compiled with shared object support. For Red Hat Enterprise Linux systems and EWS servers, this is enabled by default.

To verify that the Apache server was compiled with shared object support, use the `apachectl -l` command to list the compiled modules and look for the `mod_so.c` module:

```
[root@server ~]# apachectl -l
Compiled in modules:
  core.c
  prefork.c
  http_core.c
  mod_so.c
```

When compiling Apache from source, on 2.0.x versions, use the `--enable-so` option:

```
$ ./configure --enable-so
$ make install
```

For Apache 2.2.x versions, use the `--enable-module=so` option:

```
$ ./configure --enable-module=so
$ make install
```

1. Download the Apache binaries from the JBoss ON UI.
  - a. Log into the JBoss ON UI.

```
https://server.example.com:7080
```

- b. In the **Administration** tab in the top menu, click the **Downloads** item.
  - c. Scroll to **Connector Downloads**, and click the **connector-apache.zip** link to download the Apache connectors.
2. Unzip the Apache connectors.

```
unzip connector-apache.zip
```

3. Compile the Response Time module.



## Note

**apxs** must be installed, and **make** must be installed and in the user PATH.

```
cd apacheModuleRoot/apache-rt/sources
chmod +x build_apache_module.sh
./build_apache_module.sh 2.x apache_install_directory/bin/apxs
```

- Then, install the Response Time module on the Apache server. On Red Hat Enterprise Linux:

```
cp apache2.x/.libs/mod_rt.so apache_install_directory/modules
```

For Solaris:

```
cp apache2.x/.libs/mod_rt.so APACHE_2.x_INSTALL_DIR/modules
```

For Windows:

```
xcopy /e JON_AGENT_INSTALL_DIR\product_connectors\apache-rt\binaries  
\x86-winnt-apache2.0\* apache_install_directory
```

- Open the **httpd.conf** file. For example, on Red Hat Enterprise Linux:

```
vim apache_install_directory/conf/httpd.conf
```

- Enable the module in the Apache's **httpd.conf** file by appending this line to the end of the file:

```
LoadModule rt_module modules/mod_rt.so  
LogFormat "%S" rt_log
```

When setting the log format, the variable **%S** has a capital S.

- To configure response time logging for the main Apache server, add the following line at the top level of the file:

```
CustomLog logs/myhost.com80_rt.log rt_log
```

To configure response time logging for a virtual host, add the following line somewhere within the **<VirtualHost>** block:

```
CustomLog logs/myhost.com8080_rt.log rt_log
```

Make sure the response time log file name is different for the main server and each virtual host. Consider using the the host and port from the **ServerName** directive be used to form the file name, such as *host\_port\_rt.log*.

- Restart the Apache server:

```
apache_install_directory/bin/apachectl restart
```

- To confirm that the Response Time module was installed successfully, check that the response time log files configured via the CustomLog directive now exist.

### 3.1.1.2. Configuring the Apache SNMP Module

To discover an Apache server's virtual hosts and collect metrics for them, the SNMP module must be configured on that Apache server.

Apache 2.0 and 2.2 are supported on Red Hat Enterprise Linux. Only Apache 2.0 is supported on Windows.



## Important

To use the Response Time module, the Apache server needs to have been compiled with shared object support. For Red Hat Enterprise Linux systems and EWS servers, this is enabled by default.

To verify that the Apache server was compiled with shared object support, use the `apachectl -l` command to list the compiled modules and look for the `mod_so.c` module:

```
[root@server ~]# apachectl -l
Compiled in modules:
  core.c
  prefork.c
  http_core.c
  mod_so.c
```

When compiling Apache from source, on 2.0.x versions, use the `--enable-so` option:

```
$ ./configure --enable-so
$ make install
```

For Apache 2.2.x versions, use the `--enable-module=so` option:

```
$ ./configure --enable-module=so
$ make install
```

1. Download the Apache binaries from the JBoss ON UI.
  - a. Log into the JBoss ON UI.
 

```
https://server.example.com:7080
```
  - b. In the **Administration** tab in the top menu, click the **Downloads** item.
  - c. Scroll to **Connector Downloads**, and click the **connector-apache.zip** link to download the Apache connectors.

2. Unzip the Apache connectors in a directory that is accessible to the JBoss ON agent.

```
unzip connector-apache.zip
```

3. Each Apache version and platform has its own package that contains the Apache-SNMP connectors. Unzip the Apache connectors in a directory that is accessible to the JBoss ON agent. Binaries are available for Red Hat Enterprise Linux 32-bit and 64-bit and Windows.

For example, on Red Hat Enterprise Linux 32-bit:

```
cd apacheModuleRoot/apache-snmplib/binaries/
tar xjvf snmp_module-x86-linux-apache#.tar.bz2
```

# is the Apache server version number.

**Note**

Apache connectors can be compiled for other platforms, like Solaris, from the source files in ***apacheModuleRoot/apache-snmplib/sources***. For example:

```
cd JON_AGENT_INSTALL_DIR/product_connectors/apache-snmplib/sources
./build_apache_snmp.sh APACHE_VERSION
APACHE_2.x_INSTALL_DIR/bin/apxs
```

(To compile the Apache-SNMP connector, **apxs**, **perl**, **make**, and **automake** must all be installed and in user **PATH**.)

4. Install the module.

For example, on Red Hat Enterprise Linux:

```
# cd apacheModuleRoot/apache-snmplib/binaries/snmplib_module_#
# cp module/* apache_install_directory/modules
# cp conf/* apache_install_directory/conf
# mkdir apache_install_directory/var
```

On Windows:

```
> xcopy /e JON_AGENT_INSTALL_DIR\product_connectors\apache-snmplib\binaries\x86-winnt-apache2.0\* APACHE_2.0_INSTALL_DIR
```

5. Open the **httpd.conf** file. For example, on Red Hat Enterprise Linux:

```
vim apache_install_directory/conf/httpd.conf
```

6. Enable the module by adding these lines to the **httpd.conf** on both Red Hat Enterprise Linux and Windows:

```
LoadModule snmpcommon_module modules/snmplibcommon.so
LoadModule snmpagt_module modules/snmplibmonagt.so

SNMPConf    conf
SNMPVar     var
```

7. Make sure the main Apache configuration section, as well as each **<VirtualHost>** configuration block, contains a **ServerName** directive with a port. The SNMP module uses this directive to uniquely identify the main server and each virtual host, so each **ServerName** directive must contain a unique value. For example:

```
ServerName main.example.com:80
...
<VirtualHost vhost1.example.com:80>
```

```

ServerName vhost1.example.com:80
...
</VirtualHost>

```

8. If there is more than one Apache instance on the same machine, it is possible to use different SNMP files for each instance.

- a. Each Apache instance has its own **httpd.conf** file. Set the **SNMPConf** directory in each file to its own SNMP configuration directory. For example, for instance1:

```

vim instance1-httpd.conf

SNMPConf /opt/apache-instance1/conf

```

Then, for instance2:

```

vim instance2-httpd.conf

SNMPConf /opt/apache-instance2/conf

```

Each **snmpd.conf** file should be in the specified directory.

- b. Edit the **agentaddress** property in *apache\_install\_directory/conf/snmpd.conf* so that each instance has a different value agent address and port, so there is no conflict between instances.

See the [snmpd.conf](#) documentation for a description of this property's syntax.

9. Restart the Apache server. For example:

```

apache_installation_dir/bin/Apache -k restart

```

10. Verify that the SNMP module was properly installed. If the module is loaded, then there will be lines referencing the SNMP module in the errors log:

```

grep SNMP apache_installation_dir/logs/error_log

[Wed Mar 19 09:54:34 2008] [notice] Apache/2.0.63 (Unix)
CovalentSNMP/2.3.0 configured -- resuming normal operations
[Wed Mar 19 09:54:35 2008] [notice] SNMP: CovalentSNMP/2.3.0 started
(user '1000' - SNMP address '1610' - pid '26738')

```

### 3.1.2. Apache HTTP Server

#### Overview

**Table 3.1. Overview**

Description:	an Apache HTTP Server instance
Singleton:	no
Plugin:	Apache

## Parent Resource Types

- ✦ [Chapter 1, Managed Platforms](#)

## Child Resource Types

- ✦ [Section 3.1.2.1, “Apache Virtual Host Service”](#)
- ✦ [Section 3.1.2.2, “Mod JK Service”](#)

## Autodiscovery Process Scans

**Table 3.2. Metrics**

Name	Query
HttpdOnUnix	process basename match=httpd.*,process basenam e nomatch parent=httpd.*
HttpdOnWindows	process basename match=(? i)httpd.exe,process basename match parent=(? i)httpd.exe
Apache2OnUnix	process basename match=apache2,process basena me nomatch parent=apache2
ApacheOnWindows	process basename match=(? i)Apache.exe,process basename match parent=(? i)Apache.exe

## Connection Properties

**Table 3.3.**

Name	Description	Required	Internal Name
Enable augeas support	Enable augeas support	yes	augeasEnabled
Augeas Module Name	the name of the Augeas module/lens to use for loading and updating this resource's configuration	yes	augeasModuleName
Httpd config file	Location of the Apache main configuration file.	yes	configurationFilesInclusio nPatterns
Virtual Hosts Configuration Placement	How should the new virtual host definitions be put in the configuration	yes	vhostCreationPolicy
Path To Contain Virtual Hosts Files	If the new virtual hosts should be created in standalone files, this mask determines where to create those files. The '*' in the path is replaced by the name of the virtual host. If the path is relative, it is considered relative to server root.	yes	vhostFilesMask

Name	Description	Required	Internal Name
Error Log File Path	The absolute path to the error log file - if the path is not absolute, it will be resolved relative to the server root directory; if unset, default will be 'logs/error_log' on UNIX or 'logs\error.log' on Windows.	no	errorLogFilePath
Error Log Events Enabled	A flag indicating whether or not generation of Events for new error log entries is enabled.	yes	errorLogEventsEnabled
Error Log Minimum Severity	The minimum severity of error log entry Events that should be collected. If not specified, there is no minimum severity (i.e. all events will be collected).	no	errorLogMinimumSeverity
Error Log Includes Pattern	A regular expression against which an error log entry's detail is matched to determine if an Event should be fired for that entry. If not specified, no filtering of log entries will be done based on their detail.	no	errorLogIncludesPattern

Name	Description	Required	Internal Name
Custom Module Names	Apache can use 2 values to identify a module. Either its module name that is used in the LoadModule directive or its source file that can be used in the IfModule directive (as of Apache 2.1 the IfModule directive can but doesn't have to use the module name, too). The plugin contains the mappings of the module names to module files for all the standard apache modules mentioned on the <a href="http://httpd.apache.org/docs/current/mod/">http://httpd.apache.org/docs/current/mod/</a> plus the SNMP module and mod_jk. If you use any non-standard modules and use their source file in the IfModule directives, you have to add the module-name-to-module-file mapping to this list so that the plugin can determine the correct runtime configuration of the apache instance.	yes	customModuleNames
Server Root	the absolute path of the Apache server root directory	yes	serverRoot
Executable Path	the path to the Apache executable - if the path is not absolute, it will be resolved relative to the server root directory; if unset, default value is 'bin/httpd' on UNIX or 'bin\Apache.exe' on Windows	no	executablePath
Control Script Path	the path to the Apache control script - if the path is not absolute, it will be resolved relative to the server root directory; if unset, default will be 'bin/apachectl' on UNIX or the Apache executable on Windows	no	controlScriptPath



Name	Description	Required	Internal Name
Config File	the path to the httpd.conf file - if the path is not absolute, it will be resolved relative to the server root directory; if unset, default will be 'conf/httpd.conf' on UNIX	yes	configFile
URL	The http or https URL that will be used to check availability for this Apache server; if not set, availability will be determined based on whether plugin can connect to the Apache server's SNMP agent. Note that SSL certificate validation is disabled during availability checks if this is an HTTPS URL.	no	url
SNMP Agent Host	the host name or IP address of the Apache SNMP agent (typically '127.0.0.1')	yes	snmpAgentHost
SNMP Agent Port	the UDP port of the Apache SNMP agent (typically '1610')	yes	snmpAgentPort
SNMP Agent Community	the SNMP community of the Apache SNMP agent (typically 'public')	yes	snmpAgentCommunity
Restart After Configuration Update	If set to true, each configuration update of the server or any underlying virtual host or directory is followed by the restart of the Apache instance so that the configuration changes are applied immediately. If set to false, you have to manually restart the server (for example using the restart operation in the operations tab) once all the configuration updates are finished.	yes	restartAfterConfiguration Update



### Note

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

## Metrics

**Table 3.4. Metrics**

Name	Type	Description	Internal Name
Number of Concurrent Connections	measurement	Number of Concurrent Connections	applInboundAssociations
Server Built	trait	the date and time this Apache server's binary was compiled	serverBuilt
Start Time	trait	the date and time this Apache server was last started	wwwServiceStartTime
Time to ping the server for availability	measurement	Time it took to ping the server for availability over http; this includes DNS lookup time.	rhq_avail_ping_time



### Note

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

## Configuration Properties

**Table 3.5.**

Name	Description	Required	Internal Name
Listen		yes	Listen
Name Virtual Host	A required directive if you want to configure name-based virtual hosts. Although the value can be hostname it is recommended that you always use an IP address. IPv6 addresses must be enclosed in square brackets. To receive requests on all interfaces, you can set the value to *. Note that the IP address of a name-based virtual host must exactly match the value of this property. The address may be optionally followed by the port specification to further limit the directive effect.	no	NameVirtualHost



## Note

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

## Operations

**Table 3.6. Metrics**

Name	Description
Start	Starts this Apache server, or returns an error if it is already running. The control script used is specified in the Connection Properties.
Stop	Stops this Apache server, or returns an error if it is not running. The control script used is specified in the Connection Properties.
Restart	Restarts the Apache server by sending its process a SIGHUP. If the server is not running, it is started. This command automatically checks the server's configuration files via configtest before initiating the restart to make sure Apache doesn't die. The control script used is specified in the Connection Properties. Only supported on UNIX platforms.
Start with SSL Support	Starts this Apache server with support for SSL. The control script used is specified in the Connection Properties. Only supported on Apache 1.3.
Restart Gracefully	Gracefully restarts the Apache server by sending it a SIGUSR1. If the daemon is not running, it is started. This differs from a normal restart in that currently open connections are not aborted. A side effect is that old log files will not be closed immediately. This means that if used in a log rotation script, a substantial delay may be necessary to ensure that the old log files are closed before processing them. This command automatically checks the configuration files via configtest before initiating the restart to make sure Apache doesn't die. The control script used is specified in the Connection Properties.
Check Configuration File Syntax	Run a configuration file syntax test. It parses the configuration files and either reports Syntax Ok or detailed information about the particular syntax error. The control script used is specified in the Connection Properties. Only supported on UNIX platforms.
Install mod_jk configuration	Tries to install a mod_jk configuration in httpd.conf if none is detected. This includes a workers.properties file and urimap file

## Package Types

none

### 3.1.2.1. Apache Virtual Host Service

#### Overview

**Table 3.7. Overview**

Description:	
Singleton:	no
Plugin:	Apache

#### Parent Resource Types

- ✦ [Section 3.1.2, “Apache HTTP Server”](#)

#### Child Resource Types

- ✦ [Section 3.1.2.1.1, “Directory Service”](#)
- ✦ [Section 3.1.2.1.2, “IfModule Service”](#)

#### Connection Properties

**Table 3.8.**

Name	Description	Required	Internal Name
Response Time Log File	the full path to the log file containing response-time stats for this virtual host	no	responseTimeLogFile
Response Time Url Excludes	a space-delimited list of regular expressions specifying URLs that should be excluded from response-time stats collection	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions that should be applied to all URLs for which response-time stats are collected (e.g. <code> ^/dept/finance/.*/dept/finance/* </code> )	no	responseTimeUrlTransforms
URL	The http or https URL that will be used to check availability for this virtual host. Note that SSL certificate validation is disabled during availability checks if this is an HTTPS URL. If the URL is not set, the availability is determined by pinging the configured SNMP location.	no	url



## Note

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

## Metrics

**Table 3.9. Metrics**

Name	Type	Description	Internal Name
Host	trait	the host name or IP address of this virtual host	wwwServiceName
Port	trait	the TCP port of this virtual host	wwwServiceProtocol
Administrator	trait	the administrator of this virtual host	wwwServiceContact
Total Number of Requests	measurement	The number of inbound requests on the service	wwwSummaryInRequests
Total Number of Requests per Minute	measurement	The number of inbound requests on the service	wwwSummaryInRequests
Total Number of Bytes Received	measurement	The number of bytes received by the service	wwwSummaryInLowBytes
Total Number of Bytes Received per Minute	measurement	The number of bytes received by the service. When using the SNMP module to monitor Apache, this value will always be zero. SNMP provides various length values for the request body and a GET request does not have a body, so GET responses are not calculated and, therefore, have a value of zero. Additionally, Apache does not calculate a request body size if there is request chunking, which results in a value of zero.	wwwSummaryInLowBytes
Total Number of Responses	measurement	The number of outbound requests on the service	wwwSummaryOutResponses
Total Number of Responses per Minute	measurement	The number of outbound requests on the service	wwwSummaryOutResponses
Total Number of Bytes Sent	measurement	The number of bytes sent by the service	wwwSummaryOutLowBytes
Total Number of Bytes Sent per Minute	measurement	The number of bytes sent by the service	wwwSummaryOutLowBytes

Name	Type	Description	Internal Name
Number of GET Requests	measurement	The number of inbound GET requests on the service	wwwRequestInRequests.GET
Number of GET Requests per Minute	measurement	The number of inbound GET requests on the service	wwwRequestInRequests.GET
Number of HEAD Requests	measurement	The number of inbound HEAD requests on the service	wwwRequestInRequests.HEAD
Number of HEAD Requests per Minute	measurement	The number of inbound HEAD requests on the service	wwwRequestInRequests.HEAD
Number of POST Requests	measurement	The number of inbound POST requests on the service	wwwRequestInRequests.POST
Number of POST Requests per Minute	measurement	The number of inbound POST requests on the service	wwwRequestInRequests.POST
Number of PUT Requests	measurement	The number of inbound PUT requests on the service	wwwRequestInRequests.PUT
Number of PUT Requests per Minute	measurement	The number of inbound PUT requests on the service	wwwRequestInRequests.PUT
Bytes Received for GET Requests	measurement	The number of bytes received by GET requests on the service	wwwRequestInBytes.GET
Bytes Received for GET Requests per Minute	measurement	The number of bytes received by GET requests on the service. When using the SNMP module to monitor Apache, this value will always be zero. SNMP provides various length values for the request body and a GET request does not have a body, so GET responses are not calculated and, therefore, have a value of zero. Additionally, Apache does not calculate a request body size if there is request chunking, which results in a value of zero.	wwwRequestInBytes.GET
Bytes Received for HEAD Requests	measurement	The number of bytes received by HEAD requests on the service	wwwRequestInBytes.HEAD
Bytes Received for HEAD Requests per Minute	measurement	The number of bytes received by HEAD requests on the service	wwwRequestInBytes.HEAD

Name	Type	Description	Internal Name
Bytes Received for POST Requests	measurement	The number of bytes received by POST requests on the service. When using the SNMP module to monitor Apache, this value will always be zero. SNMP provides various length values for the request body and a GET request does not have a body, so GET responses are not calculated and, therefore, have a value of zero. Additionally, Apache does not calculate a request body size if there is request chunking, which results in a value of zero.	wwwRequestInBytes.POST
Bytes Received for POST Requests per Minute	measurement	The number of bytes received by POST requests on the service	wwwRequestInBytes.POST
Bytes Received for PUT Requests	measurement	The number of bytes received by PUT requests on the service	wwwRequestInBytes.PUT
Bytes Received for PUT Requests per Minute	measurement	The number of bytes received by PUT requests on the service	wwwRequestInBytes.PUT
Number of 200 Responses	measurement	The number of 200 responses generated by this service	wwwResponseOutResponses.200
Number of 200 Responses per Minute	measurement	The number of 200 responses generated by this service	wwwResponseOutResponses.200
Number of 301 Responses	measurement	The number of 301 responses generated by this service	wwwResponseOutResponses.301
Number of 301 Responses per Minute	measurement	The number of 301 responses generated by this service	wwwResponseOutResponses.301
Number of 302 Responses	measurement	The number of 302 responses generated by this service	wwwResponseOutResponses.302
Number of 302 Responses per Minute	measurement	The number of 302 responses generated by this service	wwwResponseOutResponses.302
Number of 401 Responses	measurement	The number of 401 responses generated by this service	wwwResponseOutResponses.401
Number of 401 Responses per Minute	measurement	The number of 401 responses generated by this service	wwwResponseOutResponses.401

Name	Type	Description	Internal Name
Number of 403 Responses	measurement	The number of 403 responses generated by this service	wwwResponseOutResponses.403
Number of 403 Responses per Minute	measurement	The number of 403 responses generated by this service	wwwResponseOutResponses.403
Number of 404 Responses	measurement	The number of 404 responses generated by this service	wwwResponseOutResponses.404
Number of 404 Responses per Minute	measurement	The number of 404 responses generated by this service	wwwResponseOutResponses.404
Number of 500 Responses	measurement	The number of 500 responses generated by this service	wwwResponseOutResponses.500
Number of 500 Responses per Minute	measurement	The number of 500 responses generated by this service	wwwResponseOutResponses.500
Bytes Sent for 200 Responses	measurement	The number of bytes sent for 200 responses generated by this service	wwwResponseOutBytes.200
Bytes Sent for 200 Responses per Minute	measurement	The number of bytes sent for 200 responses generated by this service	wwwResponseOutBytes.200
Bytes Sent for 301 Responses	measurement	The number of bytes sent for 301 responses generated by this service	wwwResponseOutBytes.301
Bytes Sent for 301 Responses per Minute	measurement	The number of bytes sent for 301 responses generated by this service	wwwResponseOutBytes.301
Bytes Sent for 302 Responses	measurement	The number of bytes sent for 302 responses generated by this service	wwwResponseOutBytes.302
Bytes Sent for 302 Responses per Minute	measurement	The number of bytes sent for 302 responses generated by this service	wwwResponseOutBytes.302
Bytes Sent for 401 Responses	measurement	The number of bytes sent for 401 responses generated by this service	wwwResponseOutBytes.401
Bytes Sent for 401 Responses per Minute	measurement	The number of bytes sent for 401 responses generated by this service	wwwResponseOutBytes.401
Bytes Sent for 403 Responses	measurement	The number of bytes sent for 403 responses generated by this service	wwwResponseOutBytes.403
Bytes Sent for 403 Responses per Minute	measurement	The number of bytes sent for 403 responses generated by this service	wwwResponseOutBytes.403
Bytes Sent for 404 Responses	measurement	The number of bytes sent for 404 responses generated by this service	wwwResponseOutBytes.404



Name	Type	Description	Internal Name
Bytes Sent for 404 Responses per Minute	measurement	The number of bytes sent for 404 responses generated by this service	wwwResponseOutBytes.404
Bytes Sent for 500 Responses	measurement	The number of bytes sent for 500 responses generated by this service	wwwResponseOutBytes.500
Bytes Sent for 500 Responses per Minute	measurement	The number of bytes sent for 500 responses generated by this service	wwwResponseOutBytes.500
HTTP Response Time	calltime	The minimum, maximum, and average response times for HTTP requests serviced by this virtual host	ResponseTime



### Note

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

## Configuration Properties

Table 3.10.

Name	Description	Required	Internal Name
Error Log	Sets the name of the file to which the server will log any errors it encounters. If the file-path is not absolute then it is assumed to be relative to the ServerRoot. If the file-path begins with a pipe ( ) then it is assumed to be a command to spawn to handle the error log. Using syslog instead of a filename enables logging via syslogd(8) if the system supports it. The default is to use syslog facility local7, but you can override this by using the syslog:facility syntax where facility can be one of the names usually documented in syslog(1).	no	ErrorLog
Request logs	Configure the logging of requests to the server.	yes	CustomLog

Name	Description	Required	Internal Name
Server Name	Sets the request scheme, hostname and port that the server uses to identify itself. This is used when creating redirection URLs. If no ServerName is specified, then the server attempts to deduce the hostname by performing a reverse lookup on the IP address. If no port is specified in the ServerName, then the server will use the port from the incoming request. For optimal reliability and predictability, you should specify an explicit hostname and port using the ServerName directive. If you are using name-based virtual hosts, the ServerName inside a <VirtualHost> section specifies what hostname must appear in the request's Host: header to match this virtual host.	no	ServerName
Server Alias		yes	ServerAlias
Server Admin	The email address or URL to contact the server administrator in case of errors. This address is used in various Apache generated error messages.	no	ServerAdmin

Name	Description	Required	Internal Name
Document Root	<p>This directive sets the directory from which httpd will serve files. Unless matched by a directive like Alias, the server appends the path from the requested URL to the document root to make the path to the document. If the directory-path is not absolute then it is assumed to be relative to the ServerRoot. The DocumentRoot should be specified without a trailing slash.</p>	yes	DocumentRoot
Add Default Charset	<p>This directive specifies a default value for the media type charset parameter (the name of a character encoding) to be added to a response if and only if the response's content-type is either text/plain or text/html. Value "Off" disables this functionality. "On" enables a default charset of iso-8859-1. Any other value is assumed to be the charset to be used, which should be one of the IANA registered charset values for use in MIME media types.</p>	no	AddDefaultCharset

Name	Description	Required	Internal Name
Alias	<p>The Alias directive allows documents to be stored in the local filesystem other than under the DocumentRoot. With "Alias /image /ftp/pub/image", a request for http://myserver/image/foo.gif would cause the server to return the file /ftp/pub/image/foo.gif. Only complete path segments are matched, so the above alias would not match a request for http://myserver/imagefoo.gif. Note that you may need to specify additional &lt;Directory&gt; sections which cover the destination of aliases. In particular, if you are creating an Alias to a directory outside of your DocumentRoot, you may need to explicitly permit access to the target directory.</p>	yes	Alias
Default Type	<p>There will be times when the server is asked to provide a document whose type cannot be determined by its MIME types mappings. The server SHOULD inform the client of the content-type of the document. If the server is unable to determine this by normal means, it will set it to the configured DefaultType.</p>	no	DefaultType
Directory Index	<p>Sets the list of resources to look for, when the client requests an index of the directory by specifying a / at the end of the directory name. Note that the documents do not need to be relative to the directory.</p>	no	DirectoryIndex

Name	Description	Required	Internal Name
Error Document	In the event of a problem or error, Apache can be configured to do one of four things, 1. output a simple hardcoded error message, 2. output a customized message, 3. redirect to a local URL-path to handle the problem/error, 4. redirect to an external URL to handle the problem/error. The first option is the default, while options 2-4 are configured using the ErrorDocument directive, which is followed by the HTTP response code and a URL or a message. Apache will sometimes offer additional information regarding the problem/error.	yes	ErrorDocument
Timeout	The Timeout directive defines the length of time Apache will wait for I/O in various circumstances.	no	Timeout
Options	The Options directive controls which server features are available in a particular directory.	no	Options

Name	Description	Required	Internal Name
Use Canonical Name	<p>With UseCanonicalName On Apache will use the hostname and port specified in the ServerName directive to construct the canonical name for the server. This name is used in all self- referential URLs, and for the values of SERVER_NAME and SERVER_PORT in CGIs. With UseCanonicalName Off Apache will form self- referential URLs using the hostname and port supplied by the client if any are supplied (otherwise it will use the canonical name, as defined above). UseCanonicalName DNS is intended for use with mass IP-based virtual hosting to support ancient clients that do not provide a Host: header. With this option Apache does a reverse DNS lookup on the server IP address that the client connected to in order to work out self- referential URLs.</p>	no	UseCanonicalName

Name	Description	Required	Internal Name
Use Canonical Physical Port	In many situations Apache must construct a self-referential URL -- that is, a URL that refers back to the same server. With UseCanonicalPhysicalPort On Apache will, when constructing the canonical port for the server to honor the UseCanonicalName directive, provide the actual physical port number being used by this request as a potential port. With UseCanonicalPhysicalPort Off Apache will not ever use the actual physical port number, instead relying on all configured information to construct a valid port number.	no	UseCanonicalPhysicalPort



### Note

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

### Operations

none

### Package Types

none

#### 3.1.2.1.1. Directory Service

### Overview

**Table 3.11. Overview**

Description:	
Singleton:	no
Plugin:	Apache

### Parent Resource Types

- ✱ [Section 3.1.2.1, "Apache Virtual Host Service"](#)

## Child Resource Types

- » [Section 3.1.2.1.1.1, "IfModule Parameters Service"](#)

## Connection Properties

**Table 3.12.**

Name	Description	Required	Internal Name
Regular Expression	Does the name of this directory denote a regular expression?	yes	regexp



### Note

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

## Metrics

none

## Configuration Properties

**Table 3.13.**

Name	Description	Required	Internal Name
IfModule Conditions	List of modules which must be loaded to use directive configuration.	yes	IfModules
Order	The Order directive, along with the Allow and Deny directives, controls a three-pass access control system. The first pass processes either all Allow or all Deny directives, as specified by the Order directive. The second pass parses the rest of the directives (Deny or Allow). The third pass applies to all requests which do not match either of the first two.	no	Order



Name	Description	Required	Internal Name
Allow	The Allow directive affects which hosts can access an area of the server. Access can be controlled by hostname, IP address, IP address range. The environment variables settings are not supported in the user interface.	no	Allow
Deny	The arguments for the Deny directive are identical to the arguments for the Allow directive.	no	Deny
Allow Override		no	AllowOverride
Add Default Charset	This directive specifies a default value for the media type charset parameter (the name of a character encoding) to be added to a response if and only if the response's content-type is either text/plain or text/html. Value "Off" disables this functionality. "On" enables a default charset of iso-8859-1. Any other value is assumed to be the charset to be used, which should be one of the IANA registered charset values for use in MIME media types.	no	AddDefaultCharset
Default Type	There will be times when the server is asked to provide a document whose type cannot be determined by its MIME types mappings. The server SHOULD inform the client of the content-type of the document. If the server is unable to determine this by normal means, it will set it to the configured DefaultType.	no	DefaultType

Name	Description	Required	Internal Name
Directory Index	Sets the list of resources to look for, when the client requests an index of the directory by specifying a / at the end of the directory name. Note that the documents do not need to be relative to the directory.	no	DirectoryIndex
Error Document	In the event of a problem or error, Apache can be configured to do one of four things, 1. output a simple hardcoded error message, 2. output a customized message, 3. redirect to a local URL-path to handle the problem/error, 4. redirect to an external URL to handle the problem/error. The first option is the default, while options 2-4 are configured using the ErrorDocument directive, which is followed by the HTTP response code and a URL or a message. Apache will sometimes offer additional information regarding the problem/error.	yes	ErrorDocument
Options	The Options directive controls which server features are available in a particular directory.	no	Options

Name	Description	Required	Internal Name
Use Canonical Name	<p>With UseCanonicalName On Apache will use the hostname and port specified in the ServerName directive to construct the canonical name for the server. This name is used in all self-referential URLs, and for the values of SERVER_NAME and SERVER_PORT in CGIs. With UseCanonicalName Off Apache will form self-referential URLs using the hostname and port supplied by the client if any are supplied (otherwise it will use the canonical name, as defined above). UseCanonicalName DNS is intended for use with mass IP-based virtual hosting to support ancient clients that do not provide a Host: header. With this option Apache does a reverse DNS lookup on the server IP address that the client connected to in order to work out self-referential URLs.</p>	no	UseCanonicalName

Name	Description	Required	Internal Name
Use Canonical Physical Port	In many situations Apache must construct a self-referential URL -- that is, a URL that refers back to the same server. With UseCanonicalPhysicalPort On Apache will, when constructing the canonical port for the server to honor the UseCanonicalName directive, provide the actual physical port number being used by this request as a potential port. With UseCanonicalPhysicalPort Off Apache will not ever use the actual physical port number, instead relying on all configured information to construct a valid port number.	no	UseCanonicalPhysicalPort



### Note

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

## Operations

none

## Package Types

none

### 3.1.2.1.1.1. IfModule Parameters Service

Overview

**Table 3.14. Overview**

Description:	
Singleton:	no
Plugin:	Apache

Parent Resource Types

» [Section 3.1.2.1.1, "Directory Service"](#)

## Child Resource Types

none

## Connection Properties

none

## Metrics

none

## Configuration Properties

**Table 3.15.**

Name	Description	Required	Internal Name
IfModule Conditions	List of modules which must be loaded to use directive configuration.	yes	IfModules
Order	The Order directive, along with the Allow and Deny directives, controls a three-pass access control system. The first pass processes either all Allow or all Deny directives, as specified by the Order directive. The second pass parses the rest of the directives (Deny or Allow). The third pass applies to all requests which do not match either of the first two.	no	Order
Allow	The Allow directive affects which hosts can access an area of the server. Access can be controlled by hostname, IP address, IP address range. The environment variables settings are not supported in the user interface.	no	Allow
Deny	The arguments for the Deny directive are identical to the arguments for the Allow directive.	no	Deny
Allow Override		no	AllowOverride

Name	Description	Required	Internal Name
Add Default Charset	This directive specifies a default value for the media type charset parameter (the name of a character encoding) to be added to a response if and only if the response's content-type is either text/plain or text/html. Value "Off" disables this functionality. "On" enables a default charset of iso-8859-1. Any other value is assumed to be the charset to be used, which should be one of the IANA registered charset values for use in MIME media types.	no	AddDefaultCharset
Default Type	There will be times when the server is asked to provide a document whose type cannot be determined by its MIME types mappings. The server SHOULD inform the client of the content-type of the document. If the server is unable to determine this by normal means, it will set it to the configured DefaultType.	no	DefaultType
Directory Index	Sets the list of resources to look for, when the client requests an index of the directory by specifying a / at the end of the directory name. Note that the documents do not need to be relative to the directory.	no	DirectoryIndex

Name	Description	Required	Internal Name
Error Document	In the event of a problem or error, Apache can be configured to do one of four things, 1. output a simple hardcoded error message, 2. output a customized message, 3. redirect to a local URL-path to handle the problem/error, 4. redirect to an external URL to handle the problem/error. The first option is the default, while options 2-4 are configured using the ErrorDocument directive, which is followed by the HTTP response code and a URL or a message. Apache will sometimes offer additional information regarding the problem/error.	yes	ErrorDocument
Options	The Options directive controls which server features are available in a particular directory.	no	Options

Name	Description	Required	Internal Name
Use Canonical Name	<p>With UseCanonicalName On Apache will use the hostname and port specified in the ServerName directive to construct the canonical name for the server. This name is used in all self- referential URLs, and for the values of SERVER_NAME and SERVER_PORT in CGIs. With UseCanonicalName Off Apache will form self- referential URLs using the hostname and port supplied by the client if any are supplied (otherwise it will use the canonical name, as defined above). UseCanonicalName DNS is intended for use with mass IP-based virtual hosting to support ancient clients that do not provide a Host: header. With this option Apache does a reverse DNS lookup on the server IP address that the client connected to in order to work out self- referential URLs.</p>	no	UseCanonicalName



Name	Description	Required	Internal Name
Use Canonical Physical Port	In many situations Apache must construct a self-referential URL -- that is, a URL that refers back to the same server. With UseCanonicalPhysicalPort On Apache will, when constructing the canonical port for the server to honor the UseCanonicalName directive, provide the actual physical port number being used by this request as a potential port. With UseCanonicalPhysicalPort Off Apache will not ever use the actual physical port number, instead relying on all configured information to construct a valid port number.	no	UseCanonicalPhysicalPort



### Note

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

Operations

none

Package Types

none

#### 3.1.2.1.2. IfModule Service

#### Overview

**Table 3.16. Overview**

Description:	
Singleton:	no
Plugin:	Apache

#### Parent Resource Types

- » [Section 3.1.2.1, "Apache Virtual Host Service"](#)

**Child Resource Types**

none

**Connection Properties**

none

**Metrics**

none

**Configuration Properties****Table 3.17.**

Name	Description	Required	Internal Name
IfModule Conditions	List of modules which must be loaded to use directive configuration.	yes	IfModules
Order	The Order directive, along with the Allow and Deny directives, controls a three-pass access control system. The first pass processes either all Allow or all Deny directives, as specified by the Order directive. The second pass parses the rest of the directives (Deny or Allow). The third pass applies to all requests which do not match either of the first two.	no	Order
Allow	The Allow directive affects which hosts can access an area of the server. Access can be controlled by hostname, IP address, IP address range. The environment variables settings are not supported in the user interface.	no	Allow
Deny	The arguments for the Deny directive are identical to the arguments for the Allow directive.	no	Deny
Allow Override		no	AllowOverride

Name	Description	Required	Internal Name
Add Default Charset	This directive specifies a default value for the media type charset parameter (the name of a character encoding) to be added to a response if and only if the response's content-type is either text/plain or text/html. Value "Off" disables this functionality. "On" enables a default charset of iso-8859-1. Any other value is assumed to be the charset to be used, which should be one of the IANA registered charset values for use in MIME media types.	no	AddDefaultCharset
Default Type	There will be times when the server is asked to provide a document whose type cannot be determined by its MIME types mappings. The server SHOULD inform the client of the content-type of the document. If the server is unable to determine this by normal means, it will set it to the configured DefaultType.	no	DefaultType
Directory Index	Sets the list of resources to look for, when the client requests an index of the directory by specifying a / at the end of the directory name. Note that the documents do not need to be relative to the directory.	no	DirectoryIndex

Name	Description	Required	Internal Name
Error Document	In the event of a problem or error, Apache can be configured to do one of four things, 1. output a simple hardcoded error message, 2. output a customized message, 3. redirect to a local URL-path to handle the problem/error, 4. redirect to an external URL to handle the problem/error. The first option is the default, while options 2-4 are configured using the ErrorDocument directive, which is followed by the HTTP response code and a URL or a message. Apache will sometimes offer additional information regarding the problem/error.	yes	ErrorDocument
Options	The Options directive controls which server features are available in a particular directory.	no	Options

Name	Description	Required	Internal Name
Use Canonical Name	<p>With UseCanonicalName On Apache will use the hostname and port specified in the ServerName directive to construct the canonical name for the server. This name is used in all self-referential URLs, and for the values of SERVER_NAME and SERVER_PORT in CGIs. With UseCanonicalName Off Apache will form self-referential URLs using the hostname and port supplied by the client if any are supplied (otherwise it will use the canonical name, as defined above). UseCanonicalName DNS is intended for use with mass IP-based virtual hosting to support ancient clients that do not provide a Host: header. With this option Apache does a reverse DNS lookup on the server IP address that the client connected to in order to work out self-referential URLs.</p>	no	UseCanonicalName

Name	Description	Required	Internal Name
Use Canonical Physical Port	In many situations Apache must construct a self-referential URL -- that is, a URL that refers back to the same server. With UseCanonicalPhysicalPort On Apache will, when constructing the canonical port for the server to honor the UseCanonicalName directive, provide the actual physical port number being used by this request as a potential port. With UseCanonicalPhysicalPort Off Apache will not ever use the actual physical port number, instead relying on all configured information to construct a valid port number.	no	UseCanonicalPhysicalPort



### Note

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

### Operations

none

### Package Types

none

### 3.1.2.2. Mod JK Service

#### Overview

**Table 3.18. Overview**

Description:	Management of mod_jk
Singleton:	yes
Plugin:	Apache

### Parent Resource Types

» [Section 3.1.2, “Apache HTTP Server”](#)

### Child Resource Types

none

### Connection Properties

**Table 3.19.**

Name	Description	Required	Internal Name
Path to workers.properties	The path to the file containing worker properties. If this is a relative path, it will be looked up in the server root of the parent Apache server	no	workerFile
Path to the uriworkers file	The path to the file containing uri to worker mappings. If this is a relative path, it will be looked up in the server root of the parent Apache server	no	uriWorkerFile



### 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

## 3.2. IIS Server

### Overview

**Table 3.20. Overview**

Description:	IIS Web Server
Singleton:	no
Plugin:	IIS

## Parent Resource Types

- » [Chapter 1, Managed Platforms](#)

## Child Resource Types

- » [Section 3.2.1, "VHost Service"](#)

## Autodiscovery Process Scans

none

## Connection Properties

none

## Metrics

**Table 3.21. Metrics**

Name	Type	Description	Internal Name
Bytes Sent	measurement	Shows the rate that data bytes are sent by the Web service.	Bytes Sent/sec
Bytes Sent per Minute	measurement	Shows the rate that data bytes are sent by the Web service.	Bytes Sent/sec
Bytes Received	measurement	Shows the rate that data bytes are received by the Web service.	Bytes Received/sec
Bytes Received per Minute	measurement	Shows the rate that data bytes are received by the Web service.	Bytes Received/sec
Total Files Sent	measurement	Shows the total number of files sent by the Web service (counted since service startup).	Total Files Sent
Total Files Sent per Minute	measurement	Shows the total number of files sent by the Web service (counted since service startup).	Total Files Sent
Total Files Received	measurement	Shows the total number of files received by the Web service (counted since service startup).	Total Files Received



Name	Type	Description	Internal Name
Total Files Received per Minute	measurement	Shows the total number of files received by the Web service (counted since service startup).	Total Files Received
Total Files Transferred	measurement	Shows the sum of Files Sent and Files Received. This is the total number of files transferred by the Web service (counted since service startup).	Total Files Transferred
Total Files Transferred per Minute	measurement	Shows the sum of Files Sent and Files Received. This is the total number of files transferred by the Web service (counted since service startup).	Total Files Transferred
Current Anonymous Users	measurement	Shows the number of users who currently have an anonymous connection using the Web service.	Current Anonymous Users
Current NonAnonymous Users	measurement	Shows the number of users who currently have a non-anonymous connection using the Web service.	Current NonAnonymous Users
Total Anonymous Users	measurement	Shows the total number of users who established an anonymous connection with the Web service (counted since service startup).	Total Anonymous Users
Total Anonymous Users per Minute	measurement	Shows the total number of users who established an anonymous connection with the Web service (counted since service startup).	Total Anonymous Users
Total Non Anonymous Users	measurement	Shows the total number of users who established a non-anonymous connection with the Web service (counted since service startup).	Total NonAnonymous Users
Total Non Anonymous Users per Minute	measurement	Shows the total number of users who established a non-anonymous connection with the Web service (counted since service startup).	Total NonAnonymous Users

Name	Type	Description	Internal Name
Maximum Anonymous Users	measurement	Shows the maximum number of users who established concurrent anonymous connections using the Web service (counted since service startup).	Maximum Anonymous Users
Maximum Non Anonymous Users	measurement	Shows the maximum number of users who established concurrent non-anonymous connections using the Web service (counted since service startup).	Maximum NonAnonymous Users
Current Connections	measurement	Shows the current number of connections established with the Web service.	Current Connections
Maximum Connections	measurement	Shows the maximum number of simultaneous connections established with the Web service.	Maximum Connections
Total Logon Attempts	measurement	Shows the number of logons that have been attempted using the Web service (counted since service startup).	Total Logon Attempts
Total Logon Attempts per Minute	measurement	Shows the number of logons that have been attempted using the Web service (counted since service startup).	Total Logon Attempts
Total GET Requests	measurement	Shows the number of HTTP requests using the GET method (counted since service startup). GET requests are generally used for basic file retrievals or image maps, though they can be used with forms.	Total Get Requests
Total GET Requests per Minute	measurement	Shows the number of HTTP requests using the GET method (counted since service startup). GET requests are generally used for basic file retrievals or image maps, though they can be used with forms.	Total Get Requests

Name	Type	Description	Internal Name
Total POST Requests	measurement	Shows the number of HTTP requests using the POST method (counted since service startup). POST requests are generally used for forms or gateway requests.	Total Post Requests
Total POST Requests per Minute	measurement	Shows the number of HTTP requests using the POST method (counted since service startup). POST requests are generally used for forms or gateway requests.	Total Post Requests
Total HEAD Requests	measurement	Shows the number of HTTP requests using the HEAD method (counted since service startup). Head requests generally indicate a client is querying the state of a document they already have to see if it needs to be refreshed.	Total Head Requests
Total HEAD Requests per Minute	measurement	Shows the number of HTTP requests using the HEAD method (counted since service startup). Head requests generally indicate a client is querying the state of a document they already have to see if it needs to be refreshed.	Total Head Requests
Total PUT Requests	measurement	Shows the number of HTTP requests using the PUT method (counted since service startup).	Total Put Requests
Total PUT Requests per Minute	measurement	Shows the number of HTTP requests using the PUT method (counted since service startup).	Total Put Requests
Total DELETE Requests	measurement	Shows the number of HTTP requests using the DELETE method (counted since service startup). Delete requests are generally used for file removals.	Total Delete Requests

Name	Type	Description	Internal Name
Total DELETE Requests per Minute	measurement	Shows the number of HTTP requests using the DELETE method (counted since service startup). Delete requests are generally used for file removals.	Total Delete Requests
Total TRACE Requests	measurement	Shows the number of HTTP requests using the TRACE method (counted since service startup). TRACE requests allow the client to see what is being received at the end of the request chain and use the information for diagnostic purposes.	Total Trace Requests
Total TRACE Requests per Minute	measurement	Shows the number of HTTP requests using the TRACE method (counted since service startup). TRACE requests allow the client to see what is being received at the end of the request chain and use the information for diagnostic purposes.	Total Trace Requests
Total Other Request Methods	measurement	Shows the number of HTTP requests that are not OPTIONS, GET, HEAD, POST, PUT, DELETE, TRACE, MOVE, COPY, MKCOL, PROPFIND, PROPPATCH, MS-SEARCH, LOCK or UNLOCK methods (counted since service startup). These may include LINK or other methods supported by gateway applications.	Total Other Request Methods

Name	Type	Description	Internal Name
Total Other Request Methods per Minute	measurement	Shows the number of HTTP requests that are not OPTIONS, GET, HEAD, POST, PUT, DELETE, TRACE, MOVE, COPY, MKCOL, PROPFIND, PROPPATCH, MS-SEARCH, LOCK or UNLOCK methods (counted since service startup). These may include LINK or other methods supported by gateway applications.	Total Other Request Methods
Total Method Requests	measurement	Shows the number of all HTTP requests (counted since service startup).	Total Method Requests
Total Method Requests per Minute	measurement	Shows the number of all HTTP requests (counted since service startup).	Total Method Requests
Total CGI Requests	measurement	Shows the total number of CGI requests. CGI requests are custom gateway executables (.exe) the administrator can install to add forms processing or other dynamic data sources. CGI requests initiate a process on the server which can be a large drain on server resources. The count is the total since service startup.	Total CGI Requests
Total CGI Requests per Minute	measurement	Shows the total number of CGI requests. CGI requests are custom gateway executables (.exe) the administrator can install to add forms processing or other dynamic data sources. CGI requests initiate a process on the server which can be a large drain on server resources. The count is the total since service startup.	Total CGI Requests

Name	Type	Description	Internal Name
Total ISAPI Extension Requests	measurement	Shows the total number of ISAPI Extension Requests. ISAPI Extension Requests are custom gateway Dynamic Link Libraries (.dll) the administrator can install to add forms processing or other dynamic data sources. Unlike CGI requests, ISAPI requests are simple calls to a DLL library routine, thus they are better suited to high performance gateway applications. The count is the total since service startup.	Total ISAPI Extension Requests
Total ISAPI Extension Requests per Minute	measurement	Shows the total number of ISAPI Extension Requests. ISAPI Extension Requests are custom gateway Dynamic Link Libraries (.dll) the administrator can install to add forms processing or other dynamic data sources. Unlike CGI requests, ISAPI requests are simple calls to a DLL library routine, thus they are better suited to high performance gateway applications. The count is the total since service startup.	Total ISAPI Extension Requests
Total Not Found Errors	measurement	Shows the number of requests that could not be satisfied by the server because the requested document could not be found. These are generally reported as an HTTP 404 error code to the client. The count is the total since service startup.	Total Not Found Errors

Name	Type	Description	Internal Name
Total Not Found Errors per Minute	measurement	Shows the number of requests that could not be satisfied by the server because the requested document could not be found. These are generally reported as an HTTP 404 error code to the client. The count is the total since service startup.	Total Not Found Errors
Total Locked Errors	measurement	Shows the number of requests that could not be satisfied by the server because the requested was locked. These are generally reported as an HTTP 423 error code to the client. The count is the total since service startup.	Total Locked Errors
Total Locked Errors per Minute	measurement	Shows the number of requests that could not be satisfied by the server because the requested was locked. These are generally reported as an HTTP 423 error code to the client. The count is the total since service startup.	Total Locked Errors
Current CGI Requests	measurement	Shows the current number of CGI requests that are simultaneously being processed by the Web service.	Current CGI Requests
Current CGI Requests per Minute	measurement	Shows the current number of CGI requests that are simultaneously being processed by the Web service.	Current CGI Requests
Current ISAPI Extension Requests	measurement	Shows the current number of Extension requests that are simultaneously being processed by the Web service.	Current ISAPI Extension Requests
Maximum CGI Requests	measurement	Shows the maximum number of CGI requests simultaneously processed by the Web service.	Maximum CGI Requests

Name	Type	Description	Internal Name
Maximum ISAPI Extension Requests	measurement	Shows the maximum number of Extension requests simultaneously processed by the Web service.	Maximum ISAPI Extension Requests
Total Blocked Async I/O Requests	measurement	Shows the number of total requests temporarily blocked due to bandwidth throttling settings (counted since service startup).	Total Blocked Async I/O Requests
Total Blocked Async I/O Requests per Minute	measurement	Shows the number of total requests temporarily blocked due to bandwidth throttling settings (counted since service startup).	Total Blocked Async I/O Requests
Total Allowed Async I/O Requests	measurement	Shows the total number of requests allowed by bandwidth throttling settings (counted since service startup). When bandwidth throttling is defined, the number of allowed user requests is restricted.	Total Allowed Async I/O Requests
Total Allowed Async I/O Requests per Minute	measurement	Shows the total number of requests allowed by bandwidth throttling settings (counted since service startup). When bandwidth throttling is defined, the number of allowed user requests is restricted.	Total Allowed Async I/O Requests
Total Rejected Async I/O Requests	measurement	Shows the total number of requests rejected due to bandwidth throttling settings (counted since service startup).	Total Rejected Async I/O Requests
Total Rejected Async I/O Requests per Minute	measurement	Shows the total number of requests rejected due to bandwidth throttling settings (counted since service startup).	Total Rejected Async I/O Requests
Current Blocked Async I/O Requests	measurement	Shows current requests that are temporarily blocked due to bandwidth throttling settings.	Current Blocked Async I/O Requests



Name	Type	Description	Internal Name
Measured Async I/O Bandwidth Usage	measurement	Shows the measured bandwidth of asynchronous I/O averaged over a minute.	Measured Async I/O Bandwidth Usage
Total Connection Attempts (all Instances)	measurement	Shows the number of connections that have been attempted using the Web service (counted since service startup). This counter is for all instances listed.	Total Connection Attempts (all instances)
Total Connection Attempts (all Instances) per Minute	measurement	Shows the number of connections that have been attempted using the Web service (counted since service startup). This counter is for all instances listed.	Total Connection Attempts (all instances)
Service Uptime	measurement	The amount of time this service has been up for	Service Uptime



### Note

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

## Configuration Properties

none

## Operations

**Table 3.22. Metrics**

Name	Description
Start	Starts IIS and, if necessary, dependent services
Stop	Shuts down IIS

## Package Types

none

### 3.2.1. VHost Service

#### Overview

**Table 3.23. Overview**

Description:	IIS VHost
Singleton:	no

Plugin:	IIS
---------	-----

## Parent Resource Types

» [Section 3.2, "IIS Server"](#)

## Child Resource Types

none

## Connection Properties

**Table 3.24.**

Name	Description	Required	Internal Name
Site Name		yes	siteName
Hostname		yes	hostname
Port		yes	port
Ip Address		yes	ipAddress
Doc Root		yes	docRoot
Ssl		yes	ssl
Log Directory		yes	logDirectory
Log Format	The format log entries are written in. This is a per-site, general option of the W3C Extended Log File Format. Format must contain the following tokens - 'date', 'time', 'c-ip', 'cs-uri-stem', 'sc-status', and 'time-taken' - but can include others. Tokens must <i>not</i> have quotes around them, and should be space-delimited.	yes	responseTimeLogFormat
Response Time Url Excludes	a space-delimited list of regular expressions specifying URLs that should be excluded from response-time stats collection	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions that should be applied to all URLs for which response-time stats are collected (e.g. <code>[^/dept/finance.*]/dept/finance/*</code> )	no	responseTimeUrlTransforms



## Note

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

## Metrics

**Table 3.25. Metrics**

Name	Type	Description	Internal Name
Bytes Sent	measurement	Shows the rate that data bytes are sent by the Web service.	Bytes Sent/sec
Bytes Sent per Minute	measurement	Shows the rate that data bytes are sent by the Web service.	Bytes Sent/sec
Bytes Received	measurement	Shows the rate that data bytes are received by the Web service.	Bytes Received/sec
Bytes Received per Minute	measurement	Shows the rate that data bytes are received by the Web service.	Bytes Received/sec
Total Files Sent	measurement	Shows the total number of files sent by the Web service (counted since service startup).	Total Files Sent
Total Files Sent per Minute	measurement	Shows the total number of files sent by the Web service (counted since service startup).	Total Files Sent
Total Files Received	measurement	Shows the total number of files received by the Web service (counted since service startup).	Total Files Received
Total Files Received per Minute	measurement	Shows the total number of files received by the Web service (counted since service startup).	Total Files Received
Total Files Transferred	measurement	Shows the sum of Files Sent and Files Received. This is the total number of files transferred by the Web service (counted since service startup).	Total Files Transferred
Total Files Transferred per Minute	measurement	Shows the sum of Files Sent and Files Received. This is the total number of files transferred by the Web service (counted since service startup).	Total Files Transferred

Name	Type	Description	Internal Name
Current Anonymous Users	measurement	Shows the number of users who currently have an anonymous connection using the Web service.	Current Anonymous Users
Current NonAnonymous Users	measurement	Shows the number of users who currently have a non-anonymous connection using the Web service.	Current NonAnonymous Users
Total Anonymous Users	measurement	Shows the total number of users who established an anonymous connection with the Web service (counted since service startup).	Total Anonymous Users
Total Anonymous Users per Minute	measurement	Shows the total number of users who established an anonymous connection with the Web service (counted since service startup).	Total Anonymous Users
Total Non Anonymous Users	measurement	Shows the total number of users who established a non-anonymous connection with the Web service (counted since service startup).	Total NonAnonymous Users
Total Non Anonymous Users per Minute	measurement	Shows the total number of users who established a non-anonymous connection with the Web service (counted since service startup).	Total NonAnonymous Users
Maximum Anonymous Users	measurement	Shows the maximum number of users who established concurrent anonymous connections using the Web service (counted since service startup).	Maximum Anonymous Users
Maximum Non Anonymous Users	measurement	Shows the maximum number of users who established concurrent non-anonymous connections using the Web service (counted since service startup).	Maximum NonAnonymous Users
Current Connections	measurement	Shows the current number of connections established with the Web service.	Current Connections

Name	Type	Description	Internal Name
Maximum Connections	measurement	Shows the maximum number of simultaneous connections established with the Web service.	Maximum Connections
Total Logon Attempts	measurement	Shows the number of logons that have been attempted using the Web service (counted since service startup).	Total Logon Attempts
Total Logon Attempts per Minute	measurement	Shows the number of logons that have been attempted using the Web service (counted since service startup).	Total Logon Attempts
Total GET Requests	measurement	Shows the number of HTTP requests using the GET method (counted since service startup). GET requests are generally used for basic file retrievals or image maps, though they can be used with forms.	Total Get Requests
Total GET Requests per Minute	measurement	Shows the number of HTTP requests using the GET method (counted since service startup). GET requests are generally used for basic file retrievals or image maps, though they can be used with forms.	Total Get Requests
Total POST Requests	measurement	Shows the number of HTTP requests using the POST method (counted since service startup). POST requests are generally used for forms or gateway requests.	Total Post Requests
Total POST Requests per Minute	measurement	Shows the number of HTTP requests using the POST method (counted since service startup). POST requests are generally used for forms or gateway requests.	Total Post Requests

Name	Type	Description	Internal Name
Total HEAD Requests	measurement	Shows the number of HTTP requests using the HEAD method (counted since service startup). Head requests generally indicate a client is querying the state of a document they already have to see if it needs to be refreshed.	Total Head Requests
Total HEAD Requests per Minute	measurement	Shows the number of HTTP requests using the HEAD method (counted since service startup). Head requests generally indicate a client is querying the state of a document they already have to see if it needs to be refreshed.	Total Head Requests
Total PUT Requests	measurement	Shows the number of HTTP requests using the PUT method (counted since service startup).	Total Put Requests
Total PUT Requests per Minute	measurement	Shows the number of HTTP requests using the PUT method (counted since service startup).	Total Put Requests
Total DELETE Requests	measurement	Shows the number of HTTP requests using the DELETE method (counted since service startup). Delete requests are generally used for file removals.	Total Delete Requests
Total DELETE Requests per Minute	measurement	Shows the number of HTTP requests using the DELETE method (counted since service startup). Delete requests are generally used for file removals.	Total Delete Requests
Total TRACE Requests	measurement	Shows the number of HTTP requests using the TRACE method (counted since service startup). TRACE requests allow the client to see what is being received at the end of the request chain and use the information for diagnostic purposes.	Total Trace Requests

Name	Type	Description	Internal Name
Total TRACE Requests per Minute	measurement	Shows the number of HTTP requests using the TRACE method (counted since service startup). TRACE requests allow the client to see what is being received at the end of the request chain and use the information for diagnostic purposes.	Total Trace Requests
Total Other Request Methods	measurement	Shows the number of HTTP requests that are not OPTIONS, GET, HEAD, POST, PUT, DELETE, TRACE, MOVE, COPY, MKCOL, PROPFIND, PROPPATCH, MS-SEARCH, LOCK or UNLOCK methods (counted since service startup). These may include LINK or other methods supported by gateway applications.	Total Other Request Methods
Total Other Request Methods per Minute	measurement	Shows the number of HTTP requests that are not OPTIONS, GET, HEAD, POST, PUT, DELETE, TRACE, MOVE, COPY, MKCOL, PROPFIND, PROPPATCH, MS-SEARCH, LOCK or UNLOCK methods (counted since service startup). These may include LINK or other methods supported by gateway applications.	Total Other Request Methods
Total Method Requests	measurement	Shows the number of all HTTP requests (counted since service startup).	Total Method Requests
Total Method Requests per Minute	measurement	Shows the number of all HTTP requests (counted since service startup).	Total Method Requests

Name	Type	Description	Internal Name
Total CGI Requests	measurement	Shows the total number of CGI requests. CGI requests are custom gateway executables (.exe) the administrator can install to add forms processing or other dynamic data sources. CGI requests initiate a process on the server which can be a large drain on server resources. The count is the total since service startup.	Total CGI Requests
Total CGI Requests per Minute	measurement	Shows the total number of CGI requests. CGI requests are custom gateway executables (.exe) the administrator can install to add forms processing or other dynamic data sources. CGI requests initiate a process on the server which can be a large drain on server resources. The count is the total since service startup.	Total CGI Requests
Total ISAPI Extension Requests	measurement	Shows the total number of ISAPI Extension Requests. ISAPI Extension Requests are custom gateway Dynamic Link Libraries (.dll) the administrator can install to add forms processing or other dynamic data sources. Unlike CGI requests, ISAPI requests are simple calls to a DLL library routine, thus they are better suited to high performance gateway applications. The count is the total since service startup.	Total ISAPI Extension Requests



Name	Type	Description	Internal Name
Total ISAPI Extension Requests per Minute	measurement	Shows the total number of ISAPI Extension Requests. ISAPI Extension Requests are custom gateway Dynamic Link Libraries (.dll) the administrator can install to add forms processing or other dynamic data sources. Unlike CGI requests, ISAPI requests are simple calls to a DLL library routine, thus they are better suited to high performance gateway applications. The count is the total since service startup.	Total ISAPI Extension Requests
Total Not Found Errors	measurement	Shows the number of requests that could not be satisfied by the server because the requested document could not be found. These are generally reported as an HTTP 404 error code to the client. The count is the total since service startup.	Total Not Found Errors
Total Not Found Errors per Minute	measurement	Shows the number of requests that could not be satisfied by the server because the requested document could not be found. These are generally reported as an HTTP 404 error code to the client. The count is the total since service startup.	Total Not Found Errors
Total Locked Errors	measurement	Shows the number of requests that could not be satisfied by the server because the requested was locked. These are generally reported as an HTTP 423 error code to the client. The count is the total since service startup.	Total Locked Errors

Name	Type	Description	Internal Name
Total Locked Errors per Minute	measurement	Shows the number of requests that could not be satisfied by the server because the requested was locked. These are generally reported as an HTTP 423 error code to the client. The count is the total since service startup.	Total Locked Errors
Current CGI Requests	measurement	Shows the current number of CGI requests that are simultaneously being processed by the Web service.	Current CGI Requests
Current CGI Requests per Minute	measurement	Shows the current number of CGI requests that are simultaneously being processed by the Web service.	Current CGI Requests
Current ISAPI Extension Requests	measurement	Shows the current number of Extension requests that are simultaneously being processed by the Web service.	Current ISAPI Extension Requests
Maximum CGI Requests	measurement	Shows the maximum number of CGI requests simultaneously processed by the Web service.	Maximum CGI Requests
Maximum ISAPI Extension Requests	measurement	Shows the maximum number of Extension requests simultaneously processed by the Web service.	Maximum ISAPI Extension Requests
Total Blocked Async I/O Requests	measurement	Shows the number of total requests temporarily blocked due to bandwidth throttling settings (counted since service startup).	Total Blocked Async I/O Requests
Total Blocked Async I/O Requests per Minute	measurement	Shows the number of total requests temporarily blocked due to bandwidth throttling settings (counted since service startup).	Total Blocked Async I/O Requests

Name	Type	Description	Internal Name
Total Allowed Async I/O Requests	measurement	Shows the total number of requests allowed by bandwidth throttling settings (counted since service startup). When bandwidth throttling is defined, the number of allowed user requests is restricted.	Total Allowed Async I/O Requests
Total Allowed Async I/O Requests per Minute	measurement	Shows the total number of requests allowed by bandwidth throttling settings (counted since service startup). When bandwidth throttling is defined, the number of allowed user requests is restricted.	Total Allowed Async I/O Requests
Total Rejected Async I/O Requests	measurement	Shows the total number of requests rejected due to bandwidth throttling settings (counted since service startup).	Total Rejected Async I/O Requests
Total Rejected Async I/O Requests per Minute	measurement	Shows the total number of requests rejected due to bandwidth throttling settings (counted since service startup).	Total Rejected Async I/O Requests
Current Blocked Async I/O Requests	measurement	Shows current requests that are temporarily blocked due to bandwidth throttling settings.	Current Blocked Async I/O Requests
Measured Async I/O Bandwidth Usage	measurement	Shows the measured bandwidth of asynchronous I/O averaged over a minute.	Measured Async I/O Bandwidth Usage
HTTP Response Time	calltime	the minimum, maximum, and average response times for HTTP requests serviced by this virtual host	ResponseTime



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 3.3. Postgres Server

### Overview

**Table 3.26. Overview**

Description:	PostgreSQL Server
Singleton:	no
Plugin:	Postgres

### Parent Resource Types

- [Chapter 1, \*Managed Platforms\*](#)

### Child Resource Types

- [Section 3.3.1, “\*Database Service\*”](#)
- [Section 3.3.2, “\*User Service\*”](#)

### Autodiscovery Process Scans

**Table 3.27. Metrics**

Name	Query
unix	process basename match=^(postgres postmaster)\$, process basename nomatch parent=^(postgres postmaster)\$
windows	process basename match=^(? <i>i</i> ) (postgres postmaster)\.exe\$, process basename nomatch parent=^(? <i>i</i> )(postgres postmaster)\.exe\$

### Connection Properties

**Table 3.28.**

Name	Description	Required	Internal Name
listen host	the hostname or IP address that the database is listening on	yes	host
listen port	the TCP port that the database is listening on	yes	port

Name	Description	Required	Internal Name
database name	the name of the database to connect to	yes	db
JDBC driver class	the fully-qualified classname of the JDBC driver class	no	driverClass
role name	the database role to connect as	yes	principal
role password	the password for the database role being used to connect	yes	credentials
PGDATA directory	the absolute path to the directory containing the cluster configuration files postgresql.conf, pg_hba.conf, and pg_ident.conf	yes	pgdataDir
configuration file	the absolute path to the main cluster configuration file; default value is '{pgDataDir}/postgresql.conf', where [pgDataDir] is the value of the pgDataDir connection property	no	configFile



### Note

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

## Metrics

Table 3.29. Metrics

Name	Type	Description	Internal Name
User Time	measurement	The aggregate amount of CPU user time spent by all postgres processes	Process.aggregateCpu.user
User Time per Minute	measurement	The aggregate amount of CPU user time spent by all postgres processes	Process.aggregateCpu.user
Kernel Time	measurement	The aggregate amount of CPU kernel time spent by all postgres processes	Process.aggregateCpu.sys

Name	Type	Description	Internal Name
Kernel Time per Minute	measurement	The aggregate amount of CPU kernel time spent by all postgres processes	Process.aggregateCpu.sys
CPU Percentage	measurement	The percentage of CPU currently being used by all postgres processes	Process.aggregateCpu.percent
Physical Memory	measurement	The aggregate amount of resident memory used by all postgres processes	Process.aggregateMemory.resident
Virtual Memory	measurement	The aggregate amount of virtual memory used by all postgres processes	Process.aggregateMemory.size
Open File Descriptors	measurement	The aggregate number of file descriptors open by all postgres processes	Process.aggregateFileDescriptor.total
Active Backends	measurement	Number of currently active backends (user connections)	Database.backends
Start time	trait	Start time of the PostgreSQL database server	Database.startTime



### Note

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

## Configuration Properties

Table 3.30.

Name	Description	Required	Internal Name
Port	Sets the TCP port the server listens on; default value is '5432'.	no	port
Max_connections	Sets the maximum number of concurrent connections; default value is '100'.	no	max_connections
Shared_buffers	Sets the number of the shared memory buffers used by the server; default value is typically '1000'.	no	shared_buffers

Name	Description	Required	Internal Name
Max_fsm_pages	Maximum FSM Pages, must be a minimum of max_fsm_relations*16, 6 bytes each)	no	max_fsm_pages
Log_destination	Available options depend on operating system; default value is 'stderr'	no	log_destination
Redirect_stderr	Enable capturing of stderr into log files; enabled by default	no	redirect_stderr
Stats_start_collector	needed for block or row stats; enabled by default	no	stats_start_collector
Stats_block_level	Enables the collection of block-level statistics on database activity; if this option is enabled, the data that is produced can be accessed via the pg_stat and pg_statio family of system views; disabled by default	no	stats_block_level
Stats_row_level	Enables the collection of row-level statistics on database activity; if this option is enabled, the data that is produced can be accessed via the pg_stat and pg_statio family of system views; disabled by default	no	stats_row_level
Autovacuum	Enable autovacuum subprocess? (requires stats_start_collector and stats_row_level to also be on); enabled by default	no	autovacuum
Runtime Settings	properties available from show all	no	runtimeSettings



### Note

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

## Operations

Table 3.31. Metrics

Name	Description
List Process Statistics	List statistics about the currently executing postgres backends

## Package Types

none

### 3.3.1. Database Service

#### Overview

**Table 3.32. Overview**

Description:	
Singleton:	no
Plugin:	Postgres

#### Parent Resource Types

- [Section 3.3, "Postgres Server"](#)

#### Child Resource Types

- [Section 3.3.1.1, "Query Service"](#)
- [Section 3.3.1.2, "Table Service"](#)

#### Connection Properties

**Table 3.33.**

Name	Description	Required	Internal Name
Database Name		yes	databaseName



#### Note

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

## Metrics

**Table 3.34. Metrics**

Name	Type	Description	Internal Name
Backends	measurement	Number of active server processes for database	numbackends
Transactions Committed	measurement	Transactions committed in database	xact_commit



Name	Type	Description	Internal Name
Transactions Committed per Minute	measurement	Transactions committed in database	xact_commit
Transactions Rolled Back	measurement	Transactions rolled back in database	xact_rollback
Transactions Rolled Back per Minute	measurement	Transactions rolled back in database	xact_rollback
Blocks Read	measurement	Number of disk block fetch requests for database	blks_read
Blocks Read per Minute	measurement	Number of disk block fetch requests for database	blks_read
Blocks Hit	measurement	Number of disk block fetch requests found in cache for database	blks_hit
Blocks Hit per Minute	measurement	Number of disk block fetch requests found in cache for database	blks_hit
Size	measurement	Disk space used by the database	size



### Note

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

## Configuration Properties

none

## Operations

**Table 3.35. Metrics**

Name	Description
Reset Statistics	Resets the statistics in this database
Invoke Sql	Execute arbitrary SQL

## Package Types

none

### 3.3.1.1. Query Service

#### Overview

**Table 3.36. Overview**

Description:	
Singleton:	no

Plugin:	Postgres
---------	----------

### Parent Resource Types

➤ [Section 3.3.1, "Database Service"](#)

### Child Resource Types

none

### Connection Properties

**Table 3.37.**

Name	Description	Required	Internal Name
Table	The table to discover	yes	table
Name		yes	name
Description		yes	description
Metric Query	The query that will gather metric data	yes	metricQuery



#### Note

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

### Metrics

**Table 3.38. Metrics**

Name	Type	Description	Internal Name
Metric Column	measurement	Metric Column	metricColumn



#### Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

### 3.3.1.2. Table Service

## Overview

**Table 3.39. Overview**

Description:	Database table
Singleton:	no
Plugin:	Postgres

## Parent Resource Types

- ✦ [Section 3.3.1, "Database Service"](#)

## Child Resource Types

none

## Connection Properties

**Table 3.40.**

Name	Description	Required	Internal Name
Table Name		yes	tableName



### Note

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

## Metrics

**Table 3.41. Metrics**

Name	Type	Description	Internal Name
Sequential Scans	measurement	Number of sequential scans done against this table (when an index scan was not possible)	seq_scan
Sequential Scans per Minute	measurement	Number of sequential scans done against this table (when an index scan was not possible)	seq_scan
Sequential Rows Read	measurement	Number of rows read by sequential scans	seq_tup_read
Sequential Rows Read per Minute	measurement	Number of rows read by sequential scans	seq_tup_read
Index Scans	measurement	Number of index scans done against this table	idx_scan
Index Scans per Minute	measurement	Number of index scans done against this table	idx_scan

Name	Type	Description	Internal Name
Index Scan Rows Read	measurement	Number of index entries returned by index scans	idx_tup_fetch
Index Scan Rows Read per Minute	measurement	Number of index entries returned by index scans	idx_tup_fetch
Heap Blocks Read	measurement	The number of heap blocks read that were not a buffer cache hit	heap_blks_read
Heap Blocks Read per Minute	measurement	The number of heap blocks read that were not a buffer cache hit	heap_blks_read
Heap Blocks Hit	measurement	The number of heap block requests that were found in the buffer cache	heap_blks_hit
Heap Blocks Hit per Minute	measurement	The number of heap block requests that were found in the buffer cache	heap_blks_hit
Index Blocks Read	measurement	The number of index blocks fetched that were not a buffer cache hit	idx_blks_read
Index Blocks Read per Minute	measurement	The number of index blocks fetched that were not a buffer cache hit	idx_blks_read
Index Blocks Hit	measurement	The number of index block requests that were found in the buffer cache	idx_blks_hit
Index Blocks Hit per Minute	measurement	The number of index block requests that were found in the buffer cache	idx_blks_hit
Toast Blocks Reads	measurement	The number of toast blocks fetched that were not a buffer cache hit	toast_blks_read
Toast Blocks Reads per Minute	measurement	The number of toast blocks fetched that were not a buffer cache hit	toast_blks_read
Toast Blocks Hit	measurement	The number of toast block requests that were found in the buffer cache	toast_blks_hit
Toast Blocks Hit per Minute	measurement	The number of toast block requests that were found in the buffer cache	toast_blks_hit
Toast Index Blocks Read	measurement	The number of toast index blocks fetched that were not a buffer cache hit	tidx_blks_read
Toast Index Blocks Read per Minute	measurement	The number of toast index blocks fetched that were not a buffer cache hit	tidx_blks_read
Toast Index Blocks Hit	measurement	The number of toast index block requests that were found in the buffer cache	tidx_blks_hit

Name	Type	Description	Internal Name
Toast Index Blocks Hit per Minute	measurement	The number of toast index block requests that were found in the buffer cache	tidx_blks_hit
Row Inserts	measurement	The number of rows ever inserted into this table	n_tup_ins
Row Inserts per Minute	measurement	The number of rows ever inserted into this table	n_tup_ins
Row Updates	measurement	The number of rows ever updated on this table	n_tup_upd
Row Updates per Minute	measurement	The number of rows ever updated on this table	n_tup_upd
Row Deletes	measurement	The number of rows ever deleted from this table	n_tup_del
Row Deletes per Minute	measurement	The number of rows ever deleted from this table	n_tup_del
Table Size	measurement	The size in bytes of the data in the table	table_size
Total Size	measurement	The size in bytes of the data and all associated indexes and toast tables	total_size
Rows	measurement	The count of rows in the table. Warning: This may be an expensive operation	rows
Approximate rows	measurement	The approximate count of rows in the table. This is basically the number of rows of the last ANALYZE of the table. This metric is not expensive.	rows_approx



### Note

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

### Configuration Properties

Table 3.42.

Name	Description	Required	Internal Name
Table Name		yes	tableName
Columns		yes	columns

**Note**

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

**Operations****Table 3.43. Metrics**

Name	Description
Vacuum	Vacuum the table

**Package Types**

none

**3.3.2. User Service****Overview****Table 3.44. Overview**

Description:	A User in the Postgres System
Singleton:	no
Plugin:	Postgres

**Parent Resource Types**

» [Section 3.3, "Postgres Server"](#)

**Child Resource Types**

none

**Connection Properties****Table 3.45.**

Name	Description	Required	Internal Name
User Name		yes	userName

**Note**

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

**Metrics**

Table 3.46. Metrics

Name	Type	Description	Internal Name
Total User Connections	measurement	The total number of user connections in the system, whether actively querying or idle	total
Active User Connections	measurement	The number of user connections in the system actively querying	active



### Note

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

## Configuration Properties

Table 3.47.

Name	Description	Required	Internal Name
Inherit Rights	Inherit rights from parent roles	yes	inheritRights
Super User	Is a super user	yes	superuser
Can Create Database Types		yes	canCreateDatabaseObjects
Can Create Roles		yes	canCreateRoles
Can Modify Catalog Directly		yes	canModifyCatalogDirectly
User connection limit		yes	connectionLimit
User		yes	user
Can Login		yes	canLogin
Password		yes	password



### Note

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

## Operations

none

## Package Types

none

## 3.4. Tomcat Server

## Overview

**Table 3.48. Overview**

Description:	Tomcat Server
Singleton:	no
Plugin:	Tomcat

## Configuring the Tomcat Server for Discovery

A Tomcat server is discovered automatically on Linux and Unix systems, but it requires additional configuration to be discovered on Windows systems.

1. Run **regedit**.
2. Navigate to Java preferences key for the Tomcat server, **HKEY\_LOCAL\_MACHINE\SOFTWARE\Apache Software Foundation\Procrun2.0\TomcatVer#\Parameters\Java**.
3. Edit the **Options** attribute, and add these parameters:

```
-Dcom.sun.management.jmxremote.port=9876
-Dcom.sun.management.jmxremote.ssl=false
-Dcom.sun.management.jmxremote.authenticate=false
```

4. Restart the Tomcat service.

After a few minutes, the Tomcat instance should show up in the Discovery Queue.

## Parent Resource Types

- [Chapter 1, Managed Platforms](#)

## Child Resource Types

- [Section 3.4.1, "Tomcat Connector Service"](#)
- [Section 3.4.2, "Tomcat User Database Service"](#)
- [Section 3.4.3, "Tomcat Virtual Host Service"](#)

## Autodiscovery Process Scans

**Table 3.49. Metrics**

Name	Query
WindowsEWSTomcat	process basename match=^tomcat(5 6)\.exe
Tomcat	process basename match=^java.* arg org.apache.catalina.startup.Bootstrap match=.*

## Connection Properties

**Table 3.50.**



Name	Description	Required	Internal Name
Catalina Home	The home directory path of the Tomcat installation.	yes	installationPath
Catalina Base	The base directory path of the Tomcat instance. Defaults to Catalina Home.	yes	catalinaBase
Manager URL	The RMI URL with which to connect to the Tomcat Server (e.g. service:jmx:rmi:///jndi/rmi://localhost:8999/jmxrmi).	yes	connectorAddress
Principal	The name of the principal (i.e. user) to authenticate.	no	principal
Credentials	The credentials (i.e. password) that should be used to authenticate the principal.	no	credentials
Control Method	The method used to execute the control operations. When set to RPM the system will use a System V init script via the 'service' command. The script properties will be ignored.	no	controlMethod
Script Prefix	A prefix applied to script execution commands; this prefix is applied verbatim. The full path of the executable is required (e.g. /usr/bin/sudo). For applicable platforms, this is typically a sudo command, so a sudo user must be configured appropriately for the specified command. Ignored if not set.	no	scriptPrefix
Start Script	The path to the script used by the 'Start' operation to start this Tomcat server; if the path is not absolute it will be resolved relative to {installationPath}.	no	startScript

Name	Description	Required	Internal Name
Shutdown Script	The path to the script used by the 'Shutdown' operation to shutdown this Tomcat server; if the path is not absolute it will be resolved relative to {installationPath}.	no	shutdownScript
Start Wait Max	The time, in minutes, (e.g. 1 or 8) that must elapse before the server is considered to have failed to start up. The default is 5 minutes.	no	startWaitMax
Stop Wait Max	The time, in minutes, (e.g. 1 or 8) that must elapse before the server is considered to have failed to stop. The default is 2.5 minutes.	no	stopWaitMax
Start Script Environment Variables	Define the environment variables to be set when executing the start script.	no	startScriptEnvironment
Shutdown Script Environment Variables	Define the environment variables to be set when executing the shutdown script.	no	shutdownScriptEnvironment
Type	The type used to establish the EMS connection to the Tomcat server.	yes	type



### Note

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

## Metrics

Table 3.51. Metrics

Name	Type	Description	Internal Name
Server Identifier	trait	Tomcat server release identifier	Catalina:type=Server:serverInfo



### Note

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

## Configuration Properties

none

## Operations

**Table 3.52. Metrics**

Name	Description
Start	Start this Tomcat server. The script used is specified in the Control section of Connection Properties.
Shutdown	Shutdown this Tomcat server. The script used is specified in the Control section of Connection Properties.
Restart	Restart this Tomcat server. The scripts used are specified in the Control section of Connection Properties.
Store Configuration	Save current state to the server.xml file.

## Package Types

none

### 3.4.1. Tomcat Connector Service

#### Overview

**Table 3.53. Overview**

Description:	
Singleton:	no
Plugin:	Tomcat

#### Parent Resource Types

✱ [Section 3.4, "Tomcat Server"](#)

#### Child Resource Types

none

#### Connection Properties

**Table 3.54.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Port	Port on which this connector is configured to listen.	yes	port

Name	Description	Required	Internal Name
Handler	Connector protocol handler.	yes	handler
Address	For servers with more than one IP address, this attribute specifies which address will be used for listening on the specified port. By default, this port will be used on all IP addresses associated with the server.	no	address
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

Table 3.55. Metrics

Name	Type	Description	Internal Name
Maximum Request Time	measurement	Maximum time it took to process a request.	Catalina:type=GlobalRequestProcessor,name=%handler%%address%-%port%:maxTime
Request count	measurement	Total number of requests processed since last restart.	Catalina:type=GlobalRequestProcessor,name=%handler%%address%-%port%:requestCount
Request count per Minute	measurement	Total number of requests processed since last restart.	Catalina:type=GlobalRequestProcessor,name=%handler%%address%-%port%:requestCount
Error count	measurement	Number of errors while processing since last restart.	Catalina:type=GlobalRequestProcessor,name=%handler%%address%-%port%:errorCount
Error count per Minute	measurement	Number of errors while processing since last restart.	Catalina:type=GlobalRequestProcessor,name=%handler%%address%-%port%:errorCount
Threadpool Threads Active	measurement	Number of current busy threads.	Catalina:type=ThreadPool,name=%handler%%address%-%port%:currentThreadsBusy

Name	Type	Description	Internal Name
Threadpool Threads Allocated	measurement	Number of current threads.	Catalina:type=ThreadPool,name=%handler%%address%-%port%:currentThreadCount
Threadpool Max Threads	measurement	Maximum number of threads that can be allocated for the ThreadPool.	Catalina:type=ThreadPool,name=%handler%%address%-%port%:maxThreads



### Note

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

## Configuration Properties

Table 3.56.

Name	Description	Required	Internal Name
Allow Trace	A boolean value which can be used to enable or disable the TRACE HTTP method. If not specified, this attribute is set to false.	yes	allowTrace
Buffer Size	HTTP: The size (in bytes) of the buffer to be provided for input streams created by this connector. By default, buffers of 2048 bytes will be provided. AJP: The size of the output buffer to use. If less than or equal to zero, then output buffering is disabled. The default value is -1 (i.e. buffering disabled)	yes	bufferSize

Name	Description	Required	Internal Name
Connection Timeout	<p>HTTP: The number of milliseconds this Connector will wait, after accepting a connection, for the request URI line to be presented. The default value is 60000 (i.e. 60 seconds). AJP: The number of milliseconds this Connector will wait, after accepting a connection, for the request URI line to be presented. The default value is infinite (i.e. no timeout).</p>	no	connectionTimeout
Empty Session Path	<p>If set to true, all paths for session cookies will be set to /. This can be useful for portlet specification implementations, but will greatly affect performance if many applications are accessed on a given server by the client. If not specified, this attribute is set to false.</p>	yes	emptySessionPath
Enable Lookups	<p>Set to true if you want calls to <code>request.getRemoteHost()</code> to perform DNS lookups in order to return the actual host name of the remote client. Set to false to skip the DNS lookup and return the IP address in String form instead (thereby improving performance). By default, DNS lookups are enabled.</p>	yes	enableLookups

Name	Description	Required	Internal Name
Keep Alive Timeout	Ignored prior to Tomcat 6. HTTP: The number of milliseconds this Connector will wait for another HTTP request before closing the connection. The default value is to use the value that has been set for the connectionTimeout attribute. AJP: The number of milliseconds this Connector will wait for another AJP request before closing the connection. The default value is to use the value that has been set for the connectionTimeout attribute.	no	keepAliveTimeout
Max Post Size	The maximum size in bytes of the POST which will be handled by the container FORM URL parameter parsing. The limit can be disabled by setting this attribute to a value less than or equal to 0. If not specified, this attribute is set to 2097152 (2 megabytes).	yes	maxPostSize

Name	Description	Required	Internal Name
Max Threads	<p>HTTP: The maximum number of request processing threads to be created by this Connector, which therefore determines the maximum number of simultaneous requests that can be handled. If not specified, this attribute is set to 40. If an executor is associated with this connector, this attribute is ignored as the connector will execute tasks using the executor rather than an internal thread pool. AJP: The maximum number of request processing threads to be created by this Connector, which therefore determines the maximum number of simultaneous requests that can be handled. If not specified, this attribute is set to 200. If an executor is associated with this connector, this attribute is ignored as the connector will execute tasks using the executor rather than an internal thread pool.</p>	no	maxThreads
Protocol	The protocol to handle incoming traffic.	yes	protocol
Proxy Name	If this Connector is being used in a proxy configuration, configure this attribute to specify the server name to be returned for calls to <code>request.getServerName()</code> .	no	proxyName
Proxy Port	If this Connector is being used in a proxy configuration, configure this attribute to specify the server port to be returned for calls to <code>request.getServerPort()</code> .	no	proxyPort



Name	Description	Required	Internal Name
Redirect Port	If this Connector is supporting non-SSL requests, and a request is received for which a matching security-constraint requires SSL transport, Catalina will automatically redirect the request to the port number specified here.	yes	redirectPort
Scheme	The name of the protocol you wish to have returned by calls to <code>request.getScheme()</code> . For example, you would set this attribute to 'https' for an SSL Connector. The default value is 'http'	yes	scheme
Secure	Set this attribute to true if you wish to have calls to <code>request.isSecure()</code> to return true for requests received by this Connector. You would want this on an SSL Connector or a non SSL connector that is receiving data from a SSL accelerator, like a crypto card, a SSL appliance or even a webserver. The default value is false	no	secure
TCP NoDelay	If set to true, the <code>TCP_NO_DELAY</code> option will be set on the server socket, which improves performance under most circumstances. This is set to true by default.	no	tcpNoDelay
URI Encoding	This specifies the character encoding used to decode the URI bytes, after %xx decoding the URL. If not specified, ISO-8859-1 will be used.	no	URIEncoding

Name	Description	Required	Internal Name
Use Body Encoding for URI	This specifies if the encoding specified in contentType should be used for URI query parameters, instead of using the URLEncoder. This setting is present for compatibility with Tomcat 4.1.x.	yes	useBodyEncodingForURI
X-Powered-By	Set this attribute to true to cause Tomcat to advertise support for the Servlet specification using the header recommended in the specification. The default value is false.	yes	xpoweredBy
Accept Count	The maximum queue length for incoming connection requests when all possible request processing threads are in use. Any requests received when the queue is full will be refused. The default value is 10.	no	acceptCount
Compression	The Connector may use HTTP/1.1 GZIP compression in an attempt to save server bandwidth. The acceptable values for the parameter is 'off' (disable compression), 'on' (allow compression, which causes text data to be compressed), 'force' (forces compression in all cases), or a numerical integer value (which is equivalent to 'on', but specifies the minimum amount of data before the output is compressed). If the content-length is not known and compression is set to 'on' or more aggressive, the output will also be compressed. If not specified, this attribute is set to 'off'.	no	compression

Name	Description	Required	Internal Name
Connection Linger	The number of milliseconds during which the sockets used by this Connector will linger when they are closed. (-1 socket linger is disabled).	no	connectionLinger
Disable Upload Timeout	This flag allows the servlet container to use a different, longer connection timeout while a servlet is being executed, which in the end allows either the servlet a longer amount of time to complete its execution, or a longer timeout during data upload. If not specified, this attribute is set to true.	no	disableUploadTimeout
Max Http Header Size	The maximum size of the request and response HTTP header, specified in bytes. If not specified, this attribute is set to 4096 (4 KB).	no	maxHttpHeaderSize
Max Keep Alive Requests	The maximum number of HTTP requests which can be pipelined until the connection is closed by the server. Setting this attribute to 1 will disable HTTP/1.0 keep-alive, as well as HTTP/1.1 keep-alive and pipelining. Setting this to -1 will allow an unlimited amount of pipelined or keep-alive HTTP requests. If not specified, this attribute is set to 100.	no	maxKeepAliveRequests
Max Spare Threads	The maximum number of unused request processing threads that will be allowed to exist until the thread pool starts stopping the unnecessary threads. The default value is 50.	no	maxSpareThreads

Name	Description	Required	Internal Name
Min Spare Threads	The number of request processing threads that will be created when this Connector is first started. The connector will also make sure it has the specified number of idle processing threads available. This attribute should be set to a value smaller than that set for maxThreads. The default value is 4.	no	minSpareThreads
Strategy	The thread pooling strategy which will be used. The default strategy does not use a master thread, but a more conventional strategy using a master listener thread can be used by setting 'ms' as this attribute's value. The master strategy will work significantly better using the threadPriority attribute, which will apply only to the thread which listens on the server socket. This is set to 'lf' by default.	no	strategy
Thread Priority	The priority of the request processing threads within the JVM. The default value is java.lang.Thread#NORM_PRIORITY. See the JavaDoc for the java.lang.Thread class for more details on what this priority means.	no	threadPriority
Algorithm	The certificate encoding algorithm to be used. This defaults to the Sun implementation (SunX509). For IBM JVMs you should use the value IbmX509. For other vendors, consult the JVM documentation for the correct value.	no	algorithm

Name	Description	Required	Internal Name
Ciphers	The comma separated list of encryption ciphers that this socket is allowed to use. By default, the default ciphers for the JVM will be used. Note that this usually means that the weak export grade ciphers will be included in the list of available ciphers. The ciphers are specified using the JSSE cipher naming convention.	no	ciphers
Client Authentication	Set to true if you want the SSL stack to require a valid certificate chain from the client before accepting a connection. Set to want if you want the SSL stack to request a client Certificate, but not fail if one isn't presented. A false value (which is the default) will not require a certificate chain unless the client requests a resource protected by a security constraint that uses CLIENT-CERT authentication.	no	clientAuth
Key Alias	The alias used to for the server certificate in the keystore. If not specified the first key read in the keystore will be used.	no	keyAlias
Keystore Password	The password used to access the server certificate from the specified keystore file.	no	keystorePass
Keystore File	Path to the keystore file used to validate client certificates.	no	keystoreFile
Keystore Type	The type of keystore file to be used for the server certificate. If not specified, the default value is 'JKS'.	no	keystoreType
SSL Protocol	The version of the SSL protocol to use. If not specified, the default is 'TLS'.	no	sslProtocol

Name	Description	Required	Internal Name
Trust Store File	Path to the trust store file used to validate client certificates.	no	trustStoreFile
Trust Store Password	The password to access the TrustStore. This defaults to the value of Keystore Password.	no	trustStorePass
Trust Store Type	Add this element if you are using a different format for the TrustStore then you are using for the KeyStore.	no	trustStoreType
Tomcat Authentication	If set to true, the authentication will be done in Tomcat. Otherwise, the authenticated principal will be propagated from the native web server and used for authorization in Tomcat. The default value is true.	no	tomcatAuthentication



### Note

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

## Operations

Table 3.57. Metrics

Name	Description
Start	Starts this connector
Stop	Stops this connector
Pause	Pauses this connector
Resume	Resumes this connector

## Package Types

none

### 3.4.2. Tomcat User Database Service

#### Overview

Table 3.58. Overview

Description:	Tomcat User Database
--------------	----------------------

Singleton:	yes
Plugin:	Tomcat

## Parent Resource Types

- » [Section 3.4, “Tomcat Server”](#)

## Child Resource Types

- » [Section 3.4.2.1, “Tomcat Group Service”](#)
- » [Section 3.4.2.2, “Tomcat Role Service”](#)
- » [Section 3.4.2.3, “Tomcat User Service”](#)

## Connection Properties

Table 3.59.

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

Table 3.60. Metrics

Name	Description
Save	Save current users and groups to persistent storage.

## Package Types

none

### 3.4.2.1. Tomcat Group Service

## Overview

**Table 3.61. Overview**

Description:	Tomcat User Group
Singleton:	no
Plugin:	Tomcat

## Parent Resource Types

- » [Section 3.4.2, “Tomcat User Database Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 3.62.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
groupname	ObjectName groupname value.	yes	name
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

**Table 3.63.**

Name	Description	Required	Internal Name
Group Name	The Group name.	yes	groupname
Description	The Group description.	no	description
Roles	Roles assigned to the Group. When editing, roles are case sensitive, must exist, and be on a new line.	no	roles



**Note**

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

**Operations**

none

**Package Types**

none

**3.4.2.2. Tomcat Role Service****Overview****Table 3.64. Overview**

Description:	Tomcat User Role
Singleton:	no
Plugin:	Tomcat

**Parent Resource Types**

✦ [Section 3.4.2, “Tomcat User Database Service”](#)

**Child Resource Types**

none

**Connection Properties****Table 3.65.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
rolename	ObjectName rolename value.	yes	name
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

**Table 3.66.**

Name	Description	Required	Internal Name
Role Name	The Role name.	yes	rolename
Description	The Role description.	no	description



### Note

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

## Operations

none

## Package Types

none

### 3.4.2.3. Tomcat User Service

#### Overview

**Table 3.67. Overview**

Description:	Tomcat User
Singleton:	no
Plugin:	Tomcat

## Parent Resource Types

- ✦ [Section 3.4.2, "Tomcat User Database Service"](#)

## Child Resource Types

none

## Connection Properties

**Table 3.68.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
username	ObjectName username value.	yes	name
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****Table 3.69.**

Name	Description	Required	Internal Name
Username	The username	yes	username
Password	The credentials used to authenticate the username.	no	password
Full Name	The full name of the User	no	fullName
Groups	Groups assigned to the User. When editing, groups are case sensitive, must exist, and be on a new line.	no	groups
Roles	Roles assigned to the User. When editing, roles are case sensitive, must exist, and be on a new line.	no	roles

**Note**

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

**Operations**

none

**Package Types**

none

**3.4.3. Tomcat Virtual Host Service****Overview****Table 3.70. Overview**

Description:	A virtual host in the web container
Singleton:	no
Plugin:	Tomcat

## Parent Resource Types

- » [Section 3.4, “Tomcat Server”](#)

## Child Resource Types

- » [Section 3.4.3.1, “Tomcat Web Application \(WAR\) Service”](#)

## Connection Properties

**Table 3.71.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name	The virtual host	yes	name
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

**Table 3.72.**

Name	Description	Required	Internal Name
App Base	The Application Base directory for this virtual host.	yes	appBase
Auto Deploy	Does this host deploy new applications dropped in appBase at runtime?	yes	autoDeploy
Deploy On Startup	Does this host deploy applications in appBase at startup?	yes	deployOnStartup
Deploy XML	deploy Context XML config files?	yes	deployXML

Name	Description	Required	Internal Name
Unpack WARs	Does this Host automatically unpack deployed WAR files?	yes	unpackWARs
Aliases	Aliases assigned to the Host. When editing, each alias must be on a new line. Aliases are automatically lowercased.	no	aliases



### Note

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

## Operations

none

## Package Types

none

### 3.4.3.1. Tomcat Web Application (WAR) Service

#### Overview

Table 3.73. Overview

Description:	Tomcat deployed Web Application
Singleton:	no
Plugin:	Tomcat

#### Parent Resource Types

- » [Section 3.4.3, “Tomcat Virtual Host Service”](#)

#### Child Resource Types

- » [Section 3.4.3.1.1, “Tomcat Cache Service”](#)

#### Connection Properties

Table 3.74.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Context Root	The unique path prefix for URLs corresponding to this WAR	no	contextRoot

Name	Description	Required	Internal Name
Virtual Host	The (virtual) host for this deployed application. If no host is set, this defaults to 'localhost'	no	vHost
Filename	The deployment root file name (.war or directory)	yes	filename
Response Time Log File	the absolute path to the log file containing response-time statistics for this web application	no	responseTimeLogFile
Response Time Url Excludes	a space-delimited list of regular expressions matching URLs to exclude from response-time statistics	no	responseTimeUrlExcludes
Response Time Url Transforms	a space-delimited list of Perl-style substitution expressions to apply to URLs actively collecting response-time statistics (e.g. <code> ^/dept/finance/.*/dept/finance/* </code> )	no	responseTimeUrlTransforms
Name	The name of this Web Module (WAR)	yes	name
Name Template	Resource name template	yes	nameTemplate
Description Template	Resource description template	yes	descriptionTemplate



### Note

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

## Metrics

**Table 3.75. Metrics**

Name	Type	Description	Internal Name
Exploded deployment	trait	Whether deployed as a .war file or an exploded directory	Application.exploded
Requests served	measurement	Number of requests served by servlets	Servlet.NumRequests
Requests served per Minute	measurement	Number of requests served by servlets	Servlet.NumRequests
Processing Errors	measurement	Number of errors while processing servlets	Servlet.NumErrors

Name	Type	Description	Internal Name
Processing Errors per Minute	measurement	Number of errors while processing servlets	Servlet.NumErrors
Currently Active Sessions	measurement	Number active sessions for the webapp right now	Session.activeSessions
Maximum number of Active Sessions	measurement	Maximum number of active sessions for the webapp	Session.maxActive
Sessions created	measurement	Number of sessions created for the webapp	Session.sessionCounter
Sessions created per Minute	measurement	Number of sessions created for the webapp	Session.sessionCounter
Expired Sessions	measurement	Number of expired sessions for the webapp	Session.expiredSessions
Expired Sessions per Minute	measurement	Number of expired sessions for the webapp	Session.expiredSessions
Rejected Sessions	measurement	Number of sessions rejected for the webapp	Session.rejectedSessions
Rejected Sessions per Minute	measurement	Number of sessions rejected for the webapp	Session.rejectedSessions
Session Average alive time	measurement	Average alive time of a Session	Session.sessionAverageAliveTime
Max Session alive time	measurement	Maximum alive time of a Session	Session.sessionMaxAliveTime
Virtual Hosts	trait	Virtual hosts this app runs on	VHost.name
HTTP Response Time	calltime	the minimum, maximum, and average response times for HTTP requests serviced by this web application	ResponseTime



### Note

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

## Configuration Properties

Table 3.76.

Name	Description	Required	Internal Name
------	-------------	----------	---------------

Name	Description	Required	Internal Name
Allow Linking	If the value of this flag is true, symlinks will be allowed inside the web application, pointing to resources outside the web application base path. If not specified, the default value of the flag is false. NOTE: This flag MUST NOT be set to true on the Windows platform (or any other OS which does not have a case sensitive filesystem), as it will disable case sensitivity checks, allowing JSP source code disclosure, among other security problems.	yes	allowLinking
Anti Jar Locking	If true, the Tomcat classloader will take extra measures to avoid JAR file locking when resources are accessed inside JARs through URLs. This will impact startup time of applications, but could prove to be useful on platforms or configurations where file locking can occur. If not specified, the default value is false.	yes	antiJarLocking



Name	Description	Required	Internal Name
Anti Resource Locking	If true, Tomcat will prevent any file locking. This will significantly impact startup time of applications, but allows full webapp hot deploy and undeploy on platforms or configurations where file locking can occur. If not specified, the default value is false. Please note that setting this to true has some side effects, including the disabling of JSP reloading in a running server: see Bugzilla 37668. Please note that setting this flag to true in applications that are outside the appBase for the Host (the webapps directory by default) will cause the application to be deleted on Tomcat shutdown. You probably don't want to do this, so think twice before setting antiResourceLocking=true on a webapp that's outside the appBase for its Host.	yes	antiResourceLocking
Caching Allowed	If the value of this flag is true, the cache for static resources will be used. If not specified, the default value of the flag is true.	yes	cachingAllowed
Cache TTL	Amount of time in milliseconds between cache entries revalidation. If not specified, the default value is 5000 (5 seconds).	yes	cacheTTL
Cache Max Size	Maximum size of the static resource cache in kilobytes. If not specified, the default value is 10240 (10 megabytes).	yes	cacheMaxSize

Name	Description	Required	Internal Name
Case Sensitive	If the value of this flag is true, all case sensitivity checks will be disabled. If not specified, the default value of the flag is true. NOTE: This flag MUST NOT be set to false on the Windows platform (or any other OS which does not have a case sensitive filesystem), as it will disable case sensitivity checks, allowing JSP source code disclosure, among other security problems.	yes	caseSensitive
Cookies	Set to true if you want cookies to be used for session identifier communication if supported by the client (this is the default). Set to false if you want to disable the use of cookies for session identifier communication, and rely only on URL rewriting by the application.	yes	cookies
Compiler Classpath	The compiler classpath to use	no	compilerClasspath
Config File	The location of the context.xml resource or file	yes	configFile
Cross Context	Set to true if you want calls within this application to ServletContext.getContext() to successfully return a request dispatcher for other web applications running on this virtual host. Set to false (the default) in security conscious environments, to make getContext() always return null.	yes	crossContext
Doc Base	The docBase set for this application	yes	docBase
Event Provider	Event provider support for this managed object?	yes	eventProvider

Name	Description	Required	Internal Name
Privileged	Set to true to allow this context to use container servlets, like the manager servlet. Use of the privileged attribute will change the context's parent class loader to be the Server class loader rather than the Shared class loader. Note that in a default installation, the Common class loader is used for both the Server and the Shared class loaders.	yes	privileged
Reloadable	Set to true if you want Catalina to monitor classes in /WEB-INF/classes/ and /WEB-INF/lib for changes, and automatically reload the web application if a change is detected. This feature is very useful during application development, but it requires significant runtime overhead and is not recommended for use on deployed production applications. That's why the default setting for this attribute is false.	yes	reloadable
Save Config	Write the configuration as needed on startup?	yes	saveConfig
State Manageable	State management support for this managed object?	yes	stateManageable
Statistics Provider	Performance statistics support for this managed object?	yes	statisticsProvider
Swallow Output	If the value of this flag is true, the bytes output to System.out and System.err by the web application will be redirected to the web application logger. If not specified, the default value of the flag is false.	yes	swallowOutput

Name	Description	Required	Internal Name
Unload Delay	Amount of ms that the container will wait for servlets to unload. If not specified, the default value of the flag is 2000 ms.	yes	unloadDelay
Use Naming	Set to true (the default) to have Catalina enable a JNDI InitialContext for this web application that is compatible with Java2 Enterprise Edition (J2EE) platform conventions.	yes	useNaming
Work Directory	Pathname to a scratch directory to be provided by this Context for temporary read-write use by servlets within the associated web application. This directory will be made visible to servlets in the web application by a servlet context attribute (of type java.io.File) named javax.servlet.context.tempdir as described in the Servlet Specification. If not specified, a suitable directory underneath \$CATALINA_BASE/work will be provided.	no	workDir



### Note

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

## Operations

Table 3.77. Metrics

Name	Description
Start	starts this web application.
Stop	stops this web application.
Reload	reloads this web application.

## Package Types

Table 3.78. Package Types

Name	Category	Description
WAR File	Deployable	

### 3.4.3.1.1. Tomcat Cache Service

#### Overview

Table 3.79. Overview

Description:	A Tomcat Application (WAR) Cache
Singleton:	yes
Plugin:	Tomcat

#### Parent Resource Types

- » [Section 3.4.3.1, “Tomcat Web Application \(WAR\) Service”](#)

#### Child Resource Types

none

#### Connection Properties

Table 3.80.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Host	The cache host	yes	host
Path	The cache application path	yes	path
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

Table 3.81. Metrics

Name	Type	Description	Internal Name
Access Count	measurement	Number of cache accesses	accessCount
Hits Count	measurement	Number of cache hits	hitsCount
Cache Size	measurement	Number of cache entries	cacheSize

Name	Type	Description	Internal Name
Cache Max Size	measurement	Maximum number of cache entries	cacheMaxSize



### Note

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

### Configuration Properties

none

### Operations

none

### Package Types

none

## 3.5. Script Server

### Overview

Table 3.82. Overview

Description:	A resource with a command line executable or script as its management interface
Singleton:	no
Plugin:	Script

### Parent Resource Types

➤ [Chapter 1, Managed Platforms](#)

### Child Resource Types

none

### Autodiscovery Process Scans

none

### Connection Properties

Table 3.83.

Name	Description	Required	Internal Name
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Name	Description	Required	Internal Name
Executable	The full path to the command line executable or script	yes	executable
Working Directory	When the executable is invoked, this will be its working directory.	no	workingDirectory
Environment Variables	Environment variables that are set when executing the executable	no	environmentVariables
Availability Execute Check	If specified and true, the ability to successfully execute the executable can determine whether or not the managed resource is considered up and available. If you set this to true, you normally do not set the availability regex settings in order to allow availability to be determined based solely on the successful execution, regardless of the exit code or output. If this is false, setting one of the avail regex settings will override it as if it were true.	no	availabilityExecuteCheck
Availability Exit Code Regex	If specified, the executable must return an exit code that matches this regular expression if the managed resource is to be considered up and available	no	availabilityExitCodeRegex
Availability Output Regex	If specified, the executable must output text that matches this regular expression if the managed resource is to be considered up and available	no	availabilityOutputRegex

Name	Description	Required	Internal Name
Availability Arguments	If the executable needs to be executed in order to determine availability, these are the arguments that will be passed to the executable. If you do not specify the regex settings and you set the execute check setting to false, the executable will not be executed and these arguments will not be used - in this case, availability will be determined by the mere existence of the executable file.	no	availabilityArguments
Version Arguments	The arguments to pass to the executable that will help determine the version of the managed resource	no	versionArguments
Version Regex	The regex that can pick out the version from the executable output. If the regex has a captured group, its matched content will be used as the version. If there is no captured group, the entire output will be used as the version.	no	versionRegex
Fixed Version	If specified, this will be the version of the managed resource - the executable will not be invoked to determine it.	no	fixedVersion
Description Arguments	The arguments to pass to the executable that will help determine the managed resource description. This can be arguments to enable verbose version output.	no	descriptionArguments
Description Regex	The regex that can pick out the description from the executable output. If the regex has a captured group, its matched content will be used as the description. If there is no captured group, the entire output will be used as the description.	no	descriptionRegex



Name	Description	Required	Internal Name
Fixed Description	If specified, this will be the description of the managed resource - the executable will not be invoked to determine it.	no	fixedDescription



### Note

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

## Metrics

none

## Configuration Properties

none

## Operations

**Table 3.84. Metrics**

Name	Description
Execute	Executes the executable with a set of arguments and returns the output and exit code.

## Package Types

none

## Chapter 4. Resources for JBoss ON

These base resources are available to manage JBoss ON servers, agents, and functionality.

### 4.1. JBoss ON Agent Server

#### Overview

**Table 4.1. Overview**

Description:	Management Agent
Singleton:	yes
Plugin:	RHQAgent

#### Parent Resource Types

- » [Chapter 1, \*Managed Platforms\*](#)

#### Child Resource Types

- » [Section 4.1.1, “Environment Setup Script Service”](#)
- » [Section 4.1.2, “Java Service Wrapper Launcher Service”](#)
- » [Section 4.1.3, “Launcher Script Service”](#)
- » [Section 4.1.4, “Measurement Subsystem Service”](#)
- » [Section 4.1.5, “Plugin Container Service”](#)

#### Autodiscovery Process Scans

none

#### Connection Properties

**Table 4.2.**

Name	Description	Required	Internal Name
Log Event Sources	The list of log files that can be tracked	yes	logEventSources
Snapshot Config Enabled	If true, take a snapshot of the configuration	yes	snapshotConfigEnabled
Snapshot Log Enabled	If true, take a snapshot of the log files	yes	snapshotLogEnabled
Snapshot Data Enabled	If true, take a snapshot of the data files	yes	snapshotDataEnabled
JVM Name	The name of the child JVM resource.	no	childJmxServerName



## Note

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

## Metrics

**Table 4.3. Metrics**

Name	Type	Description	Internal Name
SIGAR Version	trait	The version of the SIGAR (System Information Gatherer and Reporter) native library used by the Agent	Trait.SigarVersion
Reason For Last Restart	trait	Indicates what caused the last agent restart	Trait.ReasonForLastRestart
Agent Home Directory	trait	The directory where the agent is installed	Trait.AgentHomeDirectory
Number of Agent Restarts	measurement	Number of times the agent was restarted during the lifetime of its Java Virtual Machine	NumberAgentRestarts
Agent-Server Clock Difference	measurement	Number of milliseconds the agent's clock differs from its server's clock	AgentServerClockDifference
Up Time	measurement	Total number of seconds since the agent was started	Uptime
Total Number Of Commands Received	measurement	Total number of messages this agent has received from the JBoss ON Server	NumberTotalCommandsReceived
Total Number Of Commands Received per Minute	measurement	Total number of messages this agent has received from the JBoss ON Server	NumberTotalCommandsReceived
Number of Commands Received Successfully	measurement	Number of messages this agent has received from the JBoss ON Server and successfully processed	NumberSuccessfulCommandsReceived
Number of Commands Received Successfully per Minute	measurement	Number of messages this agent has received from the JBoss ON Server and successfully processed	NumberSuccessfulCommandsReceived
Number of Commands Received but Failed	measurement	Number of messages this agent has received from the JBoss ON Server but failed to process	NumberFailedCommandsReceived

Name	Type	Description	Internal Name
Number of Commands Received but Failed per Minute	measurement	Number of messages this agent has received from the JBoss ON Server but failed to process	NumberFailedCommandsReceived
Avg Execution Time Commands Received Successfully	measurement	Average time it took to process incoming commands that are ultimately successful	AverageExecutionTimeReceived
Avg Execution Time Commands Sent Successfully	measurement	Average time it took to send commands that are ultimately successful	AverageExecutionTimeSent
Total Number of Commands Sent	measurement	Total number of messages this agent has sent to the JBoss ON Server	NumberTotalCommandsSent
Total Number of Commands Sent per Minute	measurement	Total number of messages this agent has sent to the JBoss ON Server	NumberTotalCommandsSent
Number of Commands Successfully Sent	measurement	Number of messages this agent has sent to the JBoss ON Server successfully	NumberSuccessfulCommandsSent
Number of Commands Successfully Sent per Minute	measurement	Number of messages this agent has sent to the JBoss ON Server successfully	NumberSuccessfulCommandsSent
Number of Commands Sent but Failed	measurement	Number of messages this agent has either tried, but failed, to send or were not processed successfully by the JBoss ON Server	NumberFailedCommandsSent
Number of Commands Sent but Failed per Minute	measurement	Number of messages this agent has either tried, but failed, to send or were not processed successfully by the JBoss ON Server	NumberFailedCommandsSent
Number Of Active Commands Being Sent	measurement	The number of messages this agent is currently sending	NumberCommandsActiveSent
Number of Commands In Queue	measurement	Number of messages currently queued waiting to be sent to the JBoss ON Server	NumberCommandsInQueue
Number of Commands Spooled To Disk	measurement	Number of messages spooled to disk waiting to be sent to the JBoss ON Server	NumberCommandsSpooled

Name	Type	Description	Internal Name
JVM Free Memory	measurement	The amount of free memory the agent JVM has in its heap	JVMFreeMemory
JVM Total Memory	measurement	The amount of total memory the agent JVM has in its heap	JVMTotalMemory
JVM Active Threads	measurement	The number of active threads currently running in the agent JVM	JVMActiveThreads



### Note

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

## Configuration Properties

Table 4.4.

Name	Description	Required	Internal Name
Agent Name	The name that this agent is known as. This is read-only - once assigned, it cannot change.	yes	rhq.agent.name
Plugins Directory	Location on the file system where the plugin jar files are stored	yes	rhq.agent.plugins.directory
Server Discovery Initial Delay	Startup delay before the first server discovery is run (in seconds)	no	rhq.agent.plugins.server-discovery.initial-delay-secs
Server Discovery Period	Time between server discoveries (in seconds)	no	rhq.agent.plugins.server-discovery.period-secs
Service Discovery Initial Delay	Startup delay before the first service discovery is run (in seconds)	no	rhq.agent.plugins.service-discovery.initial-delay-secs
Service Discovery Period	Time between service discoveries (in seconds)	no	rhq.agent.plugins.service-discovery.period-secs
Availability Scan Initial Delay	Startup delay before the first availability scan is run (in seconds)	no	rhq.agent.plugins.availability-scan.initial-delay-secs
Availability Scan Period	Time between availability scans (in seconds)	no	rhq.agent.plugins.availability-scan.period-secs
Measurement Collection Initial Delay	Startup delay before the first measurement collection is run (in seconds)	no	rhq.agent.plugins.measurement-collection.initial-delay-secs

Name	Description	Required	Internal Name
Measurement Collection Threadpool Size	Number of concurrent measurement collections that can be run	no	rhq.agent.plugins.measurement-collection.threadpool-size
Drift Detection Initial Delay	Startup delay before the first drift detection scan is run (in seconds)	no	rhq.agent.plugins.drift-detection.initial-delay-secs
Drift Detection Period	Time between drift detection scans (in seconds)	no	rhq.agent.plugins.drift-detection.period-secs
Operation Invocation Timeout	Time before an operation invocation is aborted (in seconds)	no	rhq.agent.plugins.operation-invocation-timeout-secs
Operation Invoker Threadpool Size	Number of concurrent operation invocations that can be run	no	rhq.agent.plugins.operation-invoker.threadpool-size
Content Discovery Initial Delay	Startup delay before the first content discovery is run (in seconds)	no	rhq.agent.plugins.content-discovery.initial-delay-secs
Content Discovery Period	Time between content discoveries (in seconds)	no	rhq.agent.plugins.content-discovery.period-secs
Content Discovery Threadpool Size	Number of concurrent content discoveries that can be run	no	rhq.agent.plugins.content-discovery.threadpool-size
Configuration Change Detection Startup Delay	Time before configuration change detection starts (in seconds)	no	rhq.agent.plugins.configuration-discovery.initial-delay-secs
Configuration Change Detection Interval	Time period for checking for configuration changes (in seconds)	no	rhq.agent.plugins.configuration-discovery.period-secs
Event Sender Initial Delay	Defines the delay before the first event report gets sent to the server (in seconds)	no	rhq.agent.plugins.event-sender.initial-delay-secs
Event Sender Period	Defines how often event reports get sent to the server (in seconds)	no	rhq.agent.plugins.event-sender.period-secs
Event Report Max Per Source	Defines the maximum number of events for any given event source that can be placed in a single event report that is sent up to the server. If this number is larger than the max-total setting, then this setting is ignored	no	rhq.agent.plugins.event-report.max-per-source
Event Report Max Total	Defines the total maximum number of events that can be placed in a single event report that is sent up to the server	no	rhq.agent.plugins.event-report.max-total

Name	Description	Required	Internal Name
Disabled Plugins	Defines the plugins that should be disabled and not loaded by the plugin container. This is a comma-separated list of plugin names.	no	rhq.agent.plugins.disabled
JBoss ON Server Transport Protocol	The transport protocol used to send commands to the JBoss ON Server. If you want secure communications, the JBoss ON Server must use an SSL-enabled transport	yes	rhq.agent.server.transport
JBoss ON Server IP Address	The JBoss ON Server address that it is bound to	yes	rhq.agent.server.bind-address
JBoss ON Server Port	The port that the JBoss ON Server is listening to	yes	rhq.agent.server.bind-port
JBoss ON Server Transport Parameters	Custom set of transport parameters used when sending commands to the JBoss ON Server. Please see the documentation for more information on transport params.	no	rhq.agent.server.transport-params
JBoss ON Server Alias	If the JBoss ON Server IP address is not defined, this is the DNS alias name that will be looked up to determine the JBoss ON Server IP address.	no	rhq.agent.server.alias
Agent Transport Protocol	The transport protocol used to receive commands from the JBoss ON Server. e.g. socket, sslsocket. If you want secure communications, you must use an SSL-enabled transport	yes	rhq.communications.connector.transport
Agent IP Address	The address the agent binds to when listening for incoming commands from the JBoss ON Server	no	rhq.communications.connector.bind-address
Agent Port	The port the agent listens to for incoming commands from the JBoss ON Server	yes	rhq.communications.connector.bind-port

Name	Description	Required	Internal Name
Agent Transport Parameters	Custom set of transport parameters. Please see the documentation for more information on transport params.	no	rhq.communications.connector.transport-params
Incoming: Secure Socket Protocol		no	rhq.communications.connector.security.secure-socket-protocol
Incoming: Keystore File		no	rhq.communications.connector.security.keystore.file
Incoming: Keystore Algorithm		no	rhq.communications.connector.security.keystore.algorithm
Incoming: Keystore Type		no	rhq.communications.connector.security.keystore.type
Incoming: Keystore Password		no	rhq.communications.connector.security.keystore.password
Incoming: Keystore Key Password		no	rhq.communications.connector.security.keystore.key-password
Incoming: Keystore Alias		no	rhq.communications.connector.security.keystore.alias
Incoming: Truststore File		no	rhq.communications.connector.security.truststore.file
Incoming: Truststore Algorithm		no	rhq.communications.connector.security.truststore.algorithm
Incoming: Truststore Type		no	rhq.communications.connector.security.truststore.type
Incoming: Truststore Password		no	rhq.communications.connector.security.truststore.password
Incoming: Client Authentication Mode	Determines if the agent should authenticate a JBoss ON Server before accepting incoming commands from it	no	rhq.communications.connector.security.client-auth-mode
Outgoing: Secure Socket Protocol		no	rhq.agent.client.security.secure-socket-protocol
Outgoing: Keystore File		no	rhq.agent.client.security.keystore.file
Outgoing: Keystore Algorithm		no	rhq.agent.client.security.keystore.algorithm
Outgoing: Keystore Type		no	rhq.agent.client.security.keystore.type



Name	Description	Required	Internal Name
Outgoing: Keystore Password		no	rhq.agent.client.security.keystore.password
Outgoing: Keystore Key Password		no	rhq.agent.client.security.keystore.key-password
Outgoing: Keystore Alias		no	rhq.agent.client.security.keystore.alias
Outgoing: Truststore File		no	rhq.agent.client.security.truststore.file
Outgoing: Truststore Algorithm		no	rhq.agent.client.security.truststore.algorithm
Outgoing: Truststore Type		no	rhq.agent.client.security.truststore.type
Outgoing: Truststore Password		no	rhq.agent.client.security.truststore.password
Outgoing: Authenticate Server?	If true, then the agent must authenticate the JBoss ON Server before it can send it messages	no	rhq.agent.client.security.server-auth-mode-enabled
JBoss ON Server Polling Interval	If this value is larger than 0, it indicates the agent should periodically poll the JBoss ON Server to make sure it's still up or (if it was down) see when it comes back up. The value is the number of milliseconds to wait in between polls	no	rhq.agent.client.server-polling-interval-msecs
Auto-Detect JBoss ON Server?	If true, the agent will use multicast detection to auto-detect the JBoss ON Server. If this is enabled, make sure you enable and configure the multicast detector	no	rhq.agent.server-auto-detection
Multicast Detector Enabled?	The multicast detector must be enabled if you want the JBoss ON Agent to auto-detect the JBoss ON Server and vice versa. Disable this if your network does not support multicast traffic.	no	rhq.communications.multicast-detector.enabled
Multicast Detector Multicast Address	The address used by JBoss ON to broadcast detection messages. All JBoss ON Servers and JBoss ON Agents must be using the same address.	no	rhq.communications.multicast-detector.multicast-address
Multicast Detector Bind Address	The address bound by the network interface	no	rhq.communications.multicast-detector.bind-address

Name	Description	Required	Internal Name
Multicast Detector Port	The port that the detector is multicasting to	no	rhq.communications.multicast-detector.port
Multicast Detector Heartbeat	The number of milliseconds between heartbeat messages emitted by the multicast detector. This value must be less than the default time delay.	no	rhq.communications.multicast-detector.heartbeat-time-delay
Multicast Detector Time Delay	Amount of milliseconds that must pass without hearing a JBoss ON Server's heartbeat before assuming its down. This value must be greater than the heartbeat time delay.	no	rhq.communications.multicast-detector.default-time-delay
Queue Size	Maximum number of commands that the agent can queue up for sending to the JBoss ON Server. Setting this to 0 makes the queue unbounded.	no	rhq.agent.client.queue-size
Maximum Concurrency	Maximum number of commands that the agent can send to the JBoss ON Server at the same time.	no	rhq.agent.client.max-concurrent
Timeout	The default time in milliseconds the agent will wait before aborting a command being sent	no	rhq.agent.client.command-timeout-msecs
Retry Interval	This is the minimum amount of time, in milliseconds, the agent will wait before trying to resend a guaranteed command that previously failed	no	rhq.agent.client.retry-interval-msecs
Max Retries	This is the maximum amount of times the agent will resend a guaranteed command that previously failed due to something other than a cannot-connect error	no	rhq.agent.client.max-retries
Send Throttling	Configures the send throttle. See the documentation for more information on send throttling	no	rhq.agent.client.send-throttling

Name	Description	Required	Internal Name
Queue Throttling	Configures the queue throttle. See the documentation for more information on queue throttling	no	rhq.agent.client.queue-throttling
Register with JBoss ON Server At Startup?	This will force the agent to register with the JBoss ON Server, even if it is already registered	no	rhq.agent.register-with-server-at-startup
Time To Wait For JBoss ON Server At Startup	This is the number of milliseconds the agent will wait for the JBoss ON Server to come up	no	rhq.agent.wait-for-server-at-startup-msecs
Update Plugins At Startup	This will force the agent to download plugin updates from the JBoss ON Server	no	rhq.agent.update-plugins-at-startup
Enable Agent Update	If true, the agent will be allowed to update itself if it finds there is a new agent update binary available. If this feature is not enabled, the agent will never be allowed to update itself.	no	rhq.agent.agent-update.enabled
Agent Update Binary Version URL	If defined, this will be the URL the agent uses when it needs to retrieve information about the latest available agent update binary. If this is not defined, the agent will ask its server for the agent update binary version information.	no	rhq.agent.agent-update.version-url
Agent Update Binary Download URL	If defined, this will be the URL the agent uses when it needs to download the latest available agent update binary. If this is not defined, the agent will download the agent update binary from its server.	no	rhq.agent.agent-update.download-url
Data Directory	Location where the agent can persist data to the file system	no	rhq.agent.data-directory
Disable Native System	Disables the native system; agent will not use the native JNI libraries	no	rhq.agent.disable-native-system

Name	Description	Required	Internal Name
Primary Server Switchover Check Interval	The amount of milliseconds in between checking that the agent is connected to the primary server, as opposed to a failover server. The check is disabled if this is 0.	no	rhq.agent.primary-server-switchover-check-interval-msecs
Remote Stream Idle Timeout	The maximum amount of milliseconds an agent-hosted remote stream is allowed to remain idle before it will be closed.	no	rhq.communications.remote-stream-max-idle-time-msecs
Command Spool Filename	Defines the name of the command spool file. This file must be located in the data directory (if one does not exist, it will be created)	no	rhq.agent.client.command-spool-file.name
Command Spool File Parameters	Defines the maximum size the spool file is allowed to be and how it is to be purged. See the documentation on the format of this value.	no	rhq.agent.client.command-spool-file.params
Compress Spool File?	If true, data in the spool file will be compressed. Note that this saves disk space at the expense of performance	no	rhq.agent.client.command-spool-file.compressed
VM Health Check Interval	The amount of milliseconds in between checking the health of the agent's Java Virtual Machine. The check is disabled if this is set to 0.	no	rhq.agent.vm-health-check.interval-msecs
VM Health Check Low Heap Memory Threshold	The threshold percentage that must be crossed if the agent's VM health check is to consider the JVM with critically low memory. This value is a percentage of used heap memory out of the maximum heap size.	no	rhq.agent.vm-health-check.low-heap-memory-threshold

Name	Description	Required	Internal Name
VM Health Check Low NonHeap Memory Threshold	The threshold percentage that must be crossed if the agent's VM health check is to consider the JVM with critically low memory. This value is a percentage of used non-heap memory out of the maximum non-heap size.	no	rhq.agent.vm-health-check.low-nonheap-mem-threshold



### Note

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

## Operations

Table 4.5. Metrics

Name	Description
Restart Agent	Shuts down the agent's comm layer and plugin container and starts them up again. This does <i>*not*</i> restart the agent's VM - use the launcher services to do that.
Shutdown Agent	Shuts down the agent's comm layer and plugin container. If the agent is in daemon mode, the entire agent VM will exit
Restart Plugin Container	Recycles the plugin container.
Download Latest Failover List	Tells the agent to download an updated server failover list. This will also check to make sure the agent is pointing to its primary server as found in the new failover list and, if not, will attempt to switch to the primary server now.
Update All Plugins	Tells the agent to update its plugins. This pulls new/updated plugins down from the JBoss ON Server
Get Info On All Plugins	Retrieves information on all deployed plugins.
Get Plugin Info	Retrieves information on a specific plugin.
Execute Availability Scan	Runs an availability scan and returns a report of its findings. An availability report tells you what resources are up or down. This operation will send the report to the server for processing, as well as return the results.
Get Current Date/Time	Obtains the agent's current date/time.
Set Debug Mode	Turns on or off debug mode, which causes the agent to emit verbose log messages.

Name	Description
Execute Prompt Command	Executes an agent prompt command, just as if you invoked the command at the agent prompt in a console. Note that you must ensure the prompt command does not require additional input, since the agent will look for that input from another source (e.g. console keyboard).
Switch To Server	Tell the agent to immediately switch to another server. The given server can be a simple hostname in which case, the current transport, port and transport parameters being used to talk to the current server will stay the same. Otherwise, it will be assumed the server is a full endpoint URL.

## Package Types

none

### 4.1.1. Environment Setup Script Service

#### Overview

Table 4.6. Overview

Description:	The agent startup script that sets up the agent environment
Singleton:	yes
Plugin:	RHQAgent

#### Parent Resource Types

» [Section 4.1, "JBoss ON Agent Server"](#)

#### Child Resource Types

none

#### Connection Properties

Table 4.7.

Name	Description	Required	Internal Name
Pathname	The full path to the script	yes	Pathname



#### Note

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

#### Metrics

none

## Configuration Properties

Table 4.8.

Name	Description	Required	Internal Name
Environment Variables	Environment variables that are set when starting the JBoss ON Agent JVM process	yes	environmentVariables



### Note

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

## Operations

none

## Package Types

none

### 4.1.2. Java Service Wrapper Launcher Service

#### Overview

Table 4.9. Overview

Description:	The Java Service Wrapper that can run the agent as a daemon service
Singleton:	yes
Plugin:	RHQAgent

#### Parent Resource Types

- » [Section 4.1, "JBoss ON Agent Server"](#)

#### Child Resource Types

none

#### Connection Properties

Table 4.10.

Name	Description	Required	Internal Name
------	-------------	----------	---------------

Name	Description	Required	Internal Name
Launcher Script	The full path to wrapper launcher script file	yes	launcherScript
Configuration File	The full path to the configuration file	yes	configurationFile
Environment File	The full path to the environment setup file	no	environmentFile
Include File	The full path to the include file	no	includeFile



### Note

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

## Metrics

none

## Configuration Properties

Table 4.11.

Name	Description	Required	Internal Name
Main Configuration Settings	The main JSW configuration. This is read-only - to customize the configuration, add settings to the environment and/or includes.	yes	mainConfigurationSettings
Environment Settings	Environment settings to further customize the JSW. These are set prior to applying the main configuration and include settings. Variables set here can be placed in the main config or includes using the %VAR% notation.	yes	environmentSettings
Include Settings	Override settings that augment the existing JSW configuration. These are applied after the main configuration is set.	yes	includeSettings





## Note

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

## Operations

Table 4.12. Metrics

Name	Description
Install	Installs the Java Service Wrapper so it starts the agent at boot time
Restart	Restarts the Java Service Wrapper and the agent it contains. This will completely kill the agent VM process (if it is running as this service) and then attempt to restart it. If the agent executing this operation will quickly die, no confirmation will be available as to the success or failure of this operation.
Stop	Stops the Java Service Wrapper and the agent it contains. This will completely kill the agent VM process (if it is running as this service). If the agent executing this operation will quickly die, no confirmation will be available as to the success or failure of this operation.
Remove	Removes the Java Service Wrapper so it no longer starts the agent at boot time. *NOTE* This will completely kill the agent VM process if it is running as this service. If the agent executing this operation will quickly die, no confirmation will be available as to the success or failure of this operation.
Status	Gets the status of the Java Service Wrapper

## Package Types

none

### 4.1.3. Launcher Script Service

#### Overview

Table 4.13. Overview

Description:	The script that can run the agent as a daemon service. The Environment Setup Script configures the behavior of this service.
Singleton:	yes
Plugin:	RHQAgent

## Parent Resource Types

» [Section 4.1, “JBoss ON Agent Server”](#)

## Child Resource Types

none

## Connection Properties

Table 4.14.

Name	Description	Required	Internal Name
Pathname	The full path to launcher script file	yes	Pathname



### Note

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

## Metrics

none

## Configuration Properties

none

## Operations

Table 4.15. Metrics

Name	Description
Restart	Restarts the agent VM. This will completely kill the agent VM process (if it is running as this service) and then attempt to restart it. If the agent executing this operation will quickly die, no confirmation will be available as to the success or failure of this operation.
Stop	Stops the agent VM gracefully. This will completely kill the agent VM process (if it is running as this service). If the agent executing this operation will quickly die, no confirmation will be available as to the success or failure of this operation.
Kill	Performs a hard kill on the agent VM. This will completely kill the agent VM process (if it is running as this service). If the agent executing this operation will quickly die, no confirmation will be available as to the success or failure of this operation.
Status	Gets the status of agent VM, if it was launched by the launcher script.

## Package Types

none

### 4.1.4. Measurement Subsystem Service

#### Overview

Table 4.16. Overview

Description:	The measurement subsystem within an agent's plugin container
Singleton:	yes
Plugin:	RHQAgent

#### Parent Resource Types

✳ [Section 4.1, "JBoss ON Agent Server"](#)

#### Child Resource Types

none

#### Connection Properties

Table 4.17.

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

Table 4.18. Metrics

Name	Type	Description	Internal Name
Currently Schedule Measurements	measurement	The total number of active measurement schedules currently being collected by this JBoss ON Agent	CurrentlyScheduleMeasurements

Name	Type	Description	Internal Name
Measurements Collected	measurement	The total number of measurements collected since this JBoss ON Agent was started	MeasurementsCollected
Measurements Collected per Minute	measurement	The total number of measurements collected since this JBoss ON Agent was started	MeasurementsCollected
Total Time Collecting Measurements	measurement	The amount of time this JBoss ON Agent has spent collecting measurements since it was started	TotalTimeCollectingMeasurements
Total Time Collecting Measurements per Minute	measurement	The amount of time this JBoss ON Agent has spent collecting measurements since it was started	TotalTimeCollectingMeasurements
Failed Collections	measurement	The number of individual measurement collections that have failed since this JBoss ON Agent was started	FailedCollections
Failed Collections per Minute	measurement	The number of individual measurement collections that have failed since this JBoss ON Agent was started	FailedCollections
Late Collections	measurement	The number of individual measurement collections that have fallen behind from their desired schedule	LateCollections
Late Collections per Minute	measurement	The number of individual measurement collections that have fallen behind from their desired schedule	LateCollections



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

### 4.1.5. Plugin Container Service

#### Overview

**Table 4.19. Overview**

Description:	The plugin container itself, which hosts the plugins and manages their lifecycle
Singleton:	yes
Plugin:	RHQAgent

#### Parent Resource Types

✳ [Section 4.1, “JBoss ON Agent Server”](#)

#### Child Resource Types

none

#### Connection Properties

**Table 4.20.**

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

**Table 4.21. Metrics**

Name	Type	Description	Internal Name
Number Of Plugin Class Loaders	measurement	The total number of plugin classloaders currently created and actively managed.	NumberOfPluginClassLoaders
Number Of Discovery Class Loaders	measurement	The total number of discovery classloaders currently created and actively managed.	NumberOfDiscoveryClassLoaders

Name	Type	Description	Internal Name
Number Of Resource Class Loaders	measurement	The total number of individual resource classloaders currently created and assigned to resources.	NumberOfResourceClassLoaders



### Note

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

## Configuration Properties

none

## Operations

**Table 4.22. Metrics**

Name	Description
Retrieve Plugin Dependency Graph	Get the list of plugins and show what plugins they depend on. The order of this list is the order in which the plugins are deployed.
Retrieve Plugin ClassLoader Information	Get information on all plugin classloaders. There is one plugin classloader for each deployed plugin.
Retrieve Discovery ClassLoader Information	Get information on all discovery classloaders. These are created for discovery components that need to discover resources under a parent resource where that parent resource is from a different plugin than the discovery component.
Retrieve ClassLoader Information For All Resources	Get information on classloaders for all resources. Depending on the number of resources being managed, this is potentially an expensive operation.
Retrieve Unique Resource ClassLoader Information	Get information on all unique resource classloader instances that are created. Depending on the number of resources being managed, this is potentially an expensive operation.

## Package Types

none

## 4.2. JBoss ON Server Alerts Engine Subsystem Service

### Overview

**Table 4.23. Overview**

Description:	JBoss ON Server Alerts Engine Subsystem
Singleton:	yes

Plugin:	RHQServer
---------	-----------

## Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

Table 4.24.

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

Table 4.25. Metrics

Name	Type	Description	Internal Name
Total Cache Element Count	measurement	The total number of elements in all alert caches that check all types of conditions	TotalCacheElementCount
Availability Cache Element Count	measurement	The number of elements in the alerts cache that check conditions against availability data	AvailabilityCacheElementCount
Measurement Cache Element Count	measurement	The number of elements in the alerts cache that check conditions against measurement numeric or trait data	MeasurementCacheElementCount
Event Cache Element Count	measurement	The number of elements in the alerts cache that check conditions against event history data	EventCacheElementCount

Name	Type	Description	Internal Name
Operation Cache Element Count	measurement	The number of elements in the alerts cache that check conditions against operation history data	OperationCacheElementCount
Call Time Cache Element Count	measurement	The number of elements in the alerts cache that check conditions against calltime measurement data	CallTimeCacheElementCount
Resource Configuration Cache Element Count	measurement	The number of elements in the alerts cache that check conditions against resource configuration data	ResourceConfigurationCacheElementCount
Drift Cache Element Count	measurement	The number of elements in the alerts cache that check conditions against drift data	DriftCacheElementCount
Total Cache Element Matches	measurement	The total number of times ANY cache element has triggered against incoming data since this JBoss ON Server instance was started	TotalCacheElementMatches
Total Cache Element Matches per Minute	measurement	The total number of times ANY cache element has triggered against incoming data since this JBoss ON Server instance was started	TotalCacheElementMatches
Availability Cache Element Matches	measurement	The total number of times availability-based conditions have triggered against incoming data since this JBoss ON Server instance was started	AvailabilityCacheElementMatches
Availability Cache Element Matches per Minute	measurement	The total number of times availability-based conditions have triggered against incoming data since this JBoss ON Server instance was started	AvailabilityCacheElementMatches
Measurement Cache Element Matches	measurement	The total number of times measurement-based conditions have triggered against incoming data since this JBoss ON Server instance was started	MeasurementCacheElementMatches



Name	Type	Description	Internal Name
Measurement Cache Element Matches per Minute	measurement	The total number of times measurement-based conditions have triggered against incoming data since this JBoss ON Server instance was started	MeasurementCacheElementMatches
Event Cache Element Matches	measurement	The total number of times events-based conditions have triggered against incoming data since this JBoss ON Server instance was started	EventCacheElementMatches
Event Cache Element Matches per Minute	measurement	The total number of times events-based conditions have triggered against incoming data since this JBoss ON Server instance was started	EventCacheElementMatches
Resource Configuration Cache Element Matches	measurement	The total number of times resource configuration-based conditions have triggered against incoming data since this JBoss ON Server instance was started	ResourceConfigurationCacheElementMatches
Resource Configuration Cache Element Matches per Minute	measurement	The total number of times resource configuration-based conditions have triggered against incoming data since this JBoss ON Server instance was started	ResourceConfigurationCacheElementMatches
Operation Cache Element Matches	measurement	The total number of times operation-based conditions have triggered against incoming data since this JBoss ON Server instance was started	OperationCacheElementMatches
Operation Cache Element Matches per Minute	measurement	The total number of times operation-based conditions have triggered against incoming data since this JBoss ON Server instance was started	OperationCacheElementMatches

Name	Type	Description	Internal Name
Call Time Cache Element Matches	measurement	The total number of times calltime-based conditions have triggered against incoming data since this JBoss ON Server instance was started	CallTimeCacheElementMatches
Call Time Cache Element Matches per Minute	measurement	The total number of times calltime-based conditions have triggered against incoming data since this JBoss ON Server instance was started	CallTimeCacheElementMatches
Drift Cache Element Matches	measurement	The total number of times drift conditions have triggered against incoming data since this JBoss ON Server instance was started	DriftCacheElementMatches
Drift Cache Element Matches per Minute	measurement	The total number of times drift conditions have triggered against incoming data since this JBoss ON Server instance was started	DriftCacheElementMatches
Total Processing Time	measurement	The total amount of time spent by the alerts cache processing ALL types of data	TotalProcessingTime
Total Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing ALL types of data	TotalProcessingTime
Availability Processing Time	measurement	The total amount of time spent by the alerts cache processing availability data	AvailabilityProcessingTime
Availability Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing availability data	AvailabilityProcessingTime
Measurement Processing Time	measurement	The total amount of time spent by the alerts cache processing measurement numeric or trait data	MeasurementProcessingTime
Measurement Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing measurement numeric or trait data	MeasurementProcessingTime

Name	Type	Description	Internal Name
Event Processing Time	measurement	The total amount of time spent by the alerts cache processing event history data	EventProcessingTime
Event Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing event history data	EventProcessingTime
Resource Configuration Processing Time	measurement	The total amount of time spent by the alerts cache processing resource configuration data	ResourceConfigurationProcessingTime
Resource Configuration Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing resource configuration data	ResourceConfigurationProcessingTime
Operation Processing Time	measurement	The total amount of time spent by the alerts cache processing operation history data	OperationProcessingTime
Operation Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing operation history data	OperationProcessingTime
Call Time Processing Time	measurement	The total amount of time spent by the alerts cache processing calltime measurement data	CallTimeProcessingTime
Call Time Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing calltime measurement data	CallTimeProcessingTime
Drift Processing Time	measurement	The total amount of time spent by the alerts cache processing drift data	DriftProcessingTime
Drift Processing Time per Minute	measurement	The total amount of time spent by the alerts cache processing drift data	DriftProcessingTime



### Note

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

## Configuration Properties

none

## Operations

Table 4.26. Metrics

Name	Description
Reload Caches	Unloads then reloads all caches managed by the containing JBoss ON Server

## Package Types

none

## 4.3. JBoss ON Server Communications Subsystem Service

### Overview

Table 4.27. Overview

Description:	Details on communications with agents
Singleton:	yes
Plugin:	RHQServer

### Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

Table 4.28.

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

Table 4.29. Metrics

Name	Type	Description	Internal Name
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Name	Type	Description	Internal Name
Number Failed Commands Received	measurement	Total number of commands that were received but failed to be processed successfully	NumberFailedCommandsReceived
Number Failed Commands Received per Minute	measurement	Total number of commands that were received but failed to be processed successfully	NumberFailedCommandsReceived
Number Successful Commands Received	measurement	Total number of commands that were received and successfully processed	NumberSuccessfulCommandsReceived
Number Successful Commands Received per Minute	measurement	Total number of commands that were received and successfully processed	NumberSuccessfulCommandsReceived
Number Total Commands Received	measurement	Total number of commands that were received regardless of their success or failure	NumberTotalCommandsReceived
Number Total Commands Received per Minute	measurement	Total number of commands that were received regardless of their success or failure	NumberTotalCommandsReceived
Number Dropped Commands Received	measurement	Total number of commands that were received but were dropped, usually due to a limit reached in the server that prohibits more commands from being processed until commands currently being processed are finished.	NumberDroppedCommandsReceived
Number Dropped Commands Received per Minute	measurement	Total number of commands that were received but were dropped, usually due to a limit reached in the server that prohibits more commands from being processed until commands currently being processed are finished.	NumberDroppedCommandsReceived
Number Not Processed Commands Received	measurement	Total number of commands that were received but were not processed usually due to the suspension of global command processing.	NumberNotProcessedCommandsReceived

Name	Type	Description	Internal Name
Number Not Processed Commands Received per Minute	measurement	Total number of commands that were received but were not processed usually due to the suspension of global command processing.	NumberNotProcessedCommandsReceived
Average Execution Time Received	measurement	Average time it took to process incoming commands that were ultimately successful	AverageExecutionTimeReceived



### Note

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

## Configuration Properties

Table 4.30.

Name	Description	Required	Internal Name
Global Concurrency Limit	Number of incoming commands from agents that can be processed concurrently; if zero or less, there is no limit	yes	GlobalConcurrencyLimit
Inventory Report Limit	Number of inventory reports that can be processed concurrently; if zero or less, there is no limit	yes	InventoryReportConcurrencyLimit
Availability Report Limit	Number of availability reports that can be processed concurrently; if zero or less, there is no limit	yes	AvailabilityReportConcurrencyLimit
Inventory Synchronization Limit	Number of inventory synchronizations that can be processed concurrently; if zero or less, there is no limit	yes	InventorySyncConcurrencyLimit
Content Report Limit	Number of content reports that can be processed concurrently; if zero or less, there is no limit	yes	ContentReportConcurrencyLimit
Content Download Limit	Number of package version downloads that can be processed concurrently; if zero or less, there is no limit	yes	ContentDownloadConcurrencyLimit

Name	Description	Required	Internal Name
Measurement Report Concurrency Limit	Number of measurement reports that can be processed concurrently; if zero or less, there is no limit	yes	MeasurementReportConcurrencyLimit
Measurement Schedule Request Concurrency Limit	Number of measurement schedule requests that can be processed concurrently; if zero or less, there is no limit	yes	MeasurementScheduleRequestConcurrencyLimit
Maintenance Mode At Startup	If true, the server will start in Maintenance Mode, regardless of the state it was in when it was shutdown. Therefore, if true, no agents will be allowed to talk to this server when it starts up.	yes	MaintenanceModeAtStartup



### Note

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

## Operations

Table 4.31. Metrics

Name	Description
Clear Metrics	Clear the collected metric data and start collecting anew
View Received Call Time Data	View statistical information about each subsystem call into the server

## Package Types

none

## 4.4. JBoss ON Server Group Definition / DynaGroups Subsystem Service

### Overview

Table 4.32. Overview

Description:	Statistics for the JBoss ON Server Group Definition / DynaGroups Subsystem
Singleton:	yes

Plugin:

RHQServer

## Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

Table 4.33.

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

Table 4.34. Metrics

Name	Type	Description	Internal Name
Group Definition Count	measurement	Total number of group definitions in the system	GroupDefinitionCount
Auto Recalculating Group Definition Count	measurement	The number of auto-recalculating group definitions in the system	AutoRecalculatingGroupDefinitionCount
Dyna Group Count	measurement	Total number of resource groups managed by some group definition	DynaGroupCount
Auto Recalculation Thread Time	measurement	Average time it took to recalculate DynaGroup members for those GroupDefinition's whose timeout expired	AutoRecalculationThreadTime



### Note

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



## Configuration Properties

none

## Operations

**Table 4.35. Metrics**

Name	Description
Clear Statistics	Clear the collected statistics, and start collecting anew
Retrieve Statistics	View a snapshot of statistical information about the recalculation cost of each GroupDefinition in the system

## Package Types

none

## 4.5. JBoss ON Server Measurement Subsystem Service

### Overview

**Table 4.36. Overview**

Description:	JBoss ON Server Measurement Subsystem
Singleton:	yes
Plugin:	RHQServer

### Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

**Table 4.37.**

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

**Table 4.38. Metrics**

Name	Type	Description	Internal Name
Calltime Values Inserted	measurement	The total number of call time data records inserted into the database by this JBoss ON Server instance since it was started	CalltimeValuesInserted
Calltime Values Inserted per Minute	measurement	The total number of call time data records inserted into the database by this JBoss ON Server instance since it was started	CalltimeValuesInserted
Call Time Insert Time	measurement	The total amount of time taken to insert call time data into the database by this JBoss ON Server instance since it was started	CallTimeInsertTime
Call Time Insert Time per Minute	measurement	The total amount of time taken to insert call time data into the database by this JBoss ON Server instance since it was started	CallTimeInsertTime
Measurements Inserted	measurement	The total number of measurement records (incl. Calltime data) inserted into the database by this JBoss ON Server instance since it was started	MeasurementsInserted
Measurements Inserted per Minute	measurement	The total number of measurement records (incl. Calltime data) inserted into the database by this JBoss ON Server instance since it was started	MeasurementsInserted
Scheduled Measurements Per Minute	measurement	The average number of measurements expected to be collected per minute	ScheduledMeasurement sPerMinute

Name	Type	Description	Internal Name
Measurement Insert Time	measurement	The total amount of time taken to insert measurement data into the database by this JBoss ON Server instance since it was started	MeasurementInsertTime
Measurement Insert Time per Minute	measurement	The total amount of time taken to insert measurement data into the database by this JBoss ON Server instance since it was started	MeasurementInsertTime
Baseline Calculation Time	measurement	The total amount of time taken to calculate and insert measurement baseline data into the database by this JBoss ON Server instance since it was started	BaselineCalculationTime
Baseline Calculation Time per Minute	measurement	The total amount of time taken to calculate and insert measurement baseline data into the database by this JBoss ON Server instance since it was started	BaselineCalculationTime
Measurement Compression Time	measurement	The total amount of time taken by this JBoss ON Server instance to compress measurement data since it was started	MeasurementCompressionTime
Measurement Compression Time per Minute	measurement	The total amount of time taken by this JBoss ON Server instance to compress measurement data since it was started	MeasurementCompressionTime
Purge Time	measurement	The total amount of time taken by this RHQ Server instance to purge old data (including measurement, availability, event, etc) since it was started	PurgeTime
Purge Time per Minute	measurement	The total amount of time taken by this RHQ Server instance to purge old data (including measurement, availability, event, etc) since it was started	PurgeTime

Name	Type	Description	Internal Name
Availability Insert Time	measurement	The total amount of time taken to insert availability data into the database by this JBoss ON Server instance since it was started	AvailabilityInsertTime
Availability Insert Time per Minute	measurement	The total amount of time taken to insert availability data into the database by this JBoss ON Server instance since it was started	AvailabilityInsertTime
Availabilities Inserted	measurement	The total number of availability records inserted into the database by this JBoss ON Server instance since it was started	AvailabilitiesInserted
Availabilities Inserted per Minute	measurement	The total number of availability records inserted into the database by this JBoss ON Server instance since it was started	AvailabilitiesInserted
Total Availability Reports	measurement	The total number of availability reports received and processed by this JBoss ON Server since it was started	TotalAvailabilityReports
Total Availability Reports per Minute	measurement	The total number of availability reports received and processed by this JBoss ON Server since it was started	TotalAvailabilityReports
Changes Only Availability Reports	measurement	The number of changes-only availability reports received and processed by this JBoss ON Server since it was started	ChangesOnlyAvailabilityReports
Changes Only Availability Reports per Minute	measurement	The number of changes-only availability reports received and processed by this JBoss ON Server since it was started	ChangesOnlyAvailabilityReports
Full Availability Reports	measurement	The number of full availability reports received and processed by this JBoss ON Server since it was started	FullAvailabilityReports

Name	Type	Description	Internal Name
Full Availability Reports per Minute	measurement	The number of full availability reports received and processed by this JBoss ON Server since it was started	FullAvailabilityReports
Purged Alerts	measurement	Number of alerts purged by the last purge job	PurgedAlerts
Purged Alert Conditions	measurement	Number of alert conditions purged by the last purge job	PurgedAlertConditions
Purged Alert Notifications	measurement	Number of alert notifications purged by the last purge job	PurgedAlertNotifications
Purged Availabilities	measurement	Number of availabilities purged by the last purge job	PurgedAvailabilities
Purged Call Time Data	measurement	Number of call time data purged by the last purge job	PurgedCallTimeData
Purged Events	measurement	Number of events purged by the last purge job	PurgedEvents
Purged Measurement Traits	measurement	Number of traits purged by the last purge job	PurgedMeasurementTraits



### Note

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

## Configuration Properties

none

## Operations

none

## Package Types

none

## 4.6. JBoss ON Server Plugin Subsystem Service

### Overview

Table 4.39. Overview

Description:	Details on the server-side plugin container subsystem
--------------	---

Singleton:	yes
Plugin:	RHQServer

## Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

none

## Connection Properties

Table 4.40.

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

Table 4.41. Metrics

Name	Type	Description	Internal Name
Plugin Directory	trait	The location where this plugin container expects to find all of its plugins.	{masterPluginContainer.configuration.pluginDirectory}
Temporary Directory	trait	The location that the plugin uses to store transient files. Dependency jars found in plugins will be stored here to help build plugin classloaders.	{masterPluginContainer.configuration.tmpDirectory}



### Note

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

## Configuration Properties

none

## Operations

**Table 4.42. Metrics**

Name	Description
Start Master Plugin Container	Starts the master plugin container which will load and initialize all server-side plugins.
Stop Master Plugin Container	Stops the master plugin container which will shutdown all server-side plugins.
Restart Master Plugin Container	Convenience operation that first stops and then immediately restarts the master plugin container.

## Package Types

none

## 4.7. JBoss ON Server Remote API Subsystem Service

### Overview

**Table 4.43. Overview**

Description:	Details on remote API communications with external clients, including the CLI
Singleton:	yes
Plugin:	RHQServer

### Parent Resource Types

- » [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

### Child Resource Types

none

### Connection Properties

**Table 4.44.**

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****Table 4.45. Metrics**

Name	Type	Description	Internal Name
Number Failed Invocations	measurement	Total number of remote API requests that were received but failed to be processed successfully	NumberFailedInvocations
Number Failed Invocations per Minute	measurement	Total number of remote API requests that were received but failed to be processed successfully	NumberFailedInvocations
Number Successful Invocations	measurement	Total number of remote API requests that were received and successfully processed	NumberSuccessfulInvocations
Number Successful Invocations per Minute	measurement	Total number of remote API requests that were received and successfully processed	NumberSuccessfulInvocations
Number Total Invocations	measurement	Total number of remote API requests that were received regardless of their success or failure	NumberTotalInvocations
Number Total Invocations per Minute	measurement	Total number of remote API requests that were received regardless of their success or failure	NumberTotalInvocations
Average Execution Time	measurement	Average time it took to process incoming remote API requests that were ultimately successful	AverageExecutionTime

**Note**

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

**Configuration Properties**

none

**Operations**



**Table 4.46. Metrics**

Name	Description
Clear Metrics	Clear the collected metric data and start collecting anew
View Received Call Time Data	View statistical information about each subsystem call into the server

## Package Types

none

## 4.8. Ant Bundle Handler Service

### Overview

**Table 4.47. Overview**

Description:	This plugin is used to process Ant bundles
Singleton:	yes
Plugin:	AntBundlePlugin

### Parent Resource Types

- [Section 1.8, “Windows Platform”](#)
- [Section 1.5, “Linux Platform”](#)
- [Section 1.7, “Solaris Platform”](#)
- [Section 1.3, “HP-UX Platform”](#)
- [Section 1.1, “AIX Platform”](#)
- [Section 1.2, “FreeBSD Platform”](#)
- [Section 1.6, “Mac OS X Platform”](#)

### Child Resource Types

none

### Connection Properties

none

### Metrics

none

### Configuration Properties

none

## **Operations**

none

## **Package Types**

none

## Chapter 5. Additional JBoss Resources

Additional JBoss resources can be managed by JBoss ON by installing additional *plug-in packs*.

### 5.1. JBoss Enterprise Data Services (Teiid)

The information for monitoring metrics, configuration properties, and operations for JBoss Enterprise Data Services (JBoss Teiid) is available in the EDS documentation:

- » [https://access.redhat.com/documentation/en-US/JBoss\\_Enterprise\\_Data\\_Services/5/html/Data\\_Services\\_Administration\\_Guide/chap-Administration\\_Console.html#EDS\\_Dashboard\\_Configuration](https://access.redhat.com/documentation/en-US/JBoss_Enterprise_Data_Services/5/html/Data_Services_Administration_Guide/chap-Administration_Console.html#EDS_Dashboard_Configuration)

### 5.2. JBoss ModeShape

The information for monitoring metrics, configuration properties, and operations for JBoss ModeShape is available in the ModeShape documentation:

- » <https://docs.jboss.org/author/display/MODE50/Home>

### 5.3. BRMS Rules Service

#### Overview

**Table 5.1. Overview**

Description:	
Singleton:	no
Plugin:	Drools

#### Parent Resource Types

- » [Section 2.10, “JMX Server”](#)

#### Child Resource Types

- » [Section 5.3.1, “BRMS Service”](#)
- » [Section 5.3.2, “BRMS Knowledge Base”](#)

#### Connection Properties

none

#### Metrics

none

#### Configuration Properties

none

## Operations

none

## Package Types

none

### 5.3.1. BRMS Service

#### Overview

**Table 5.2. Overview**

Description:	
Singleton:	no
Plugin:	Drools

#### Parent Resource Types

» [Section 2.10, “JMX Server”](#)

#### Child Resource Types

none

#### Connection Properties

none

#### Metrics

none

#### Configuration Properties

**Table 5.3.**

Name	Description	Required	Internal Name
objectName	Read only. The value is org.drools:type=DroolsManagementAgent.		

#### Operations

none

#### Package Types

none

## 5.3.2. BRMS Knowledge Base

### Overview

**Table 5.4. Overview**

Description:	The Drools Knowledge Base monitoring service.
Singleton:	yes
Plugin:	Drools

### Parent Resource Types

- » [Section 2.10, “JMX Server”](#)

### Child Resource Types

none

### Connection Properties

none

### Metrics

none

### Configuration Properties

**Table 5.5.**

Name	Description
objectName	org.drools.kbases:id=%kbaseId% (read-only).
nameTemplate	KBase '{kbaseId}'.
descriptionTemplate	A JMX bean for Knowledge Base '{kbaseId}'.
kbaseId	The Knowledge Base Id.

### Operations

**Table 5.6. Operations**

Name	Description
Start Internal MBeans	Starts all the internal dependent MBeans.
Stop Internal MBeans	Stops all the internal dependent MBeans.

### Package Types

none

## 5.4. ESB Service

## Overview

**Table 5.7. Overview**

Description:	Overall metrics for JBoss ESB.
Singleton:	yes
Plugin:	JBossESB

## Parent Resource Types

- › [Section 2.1, “JBossAS 4.x and EAP 4.x Server”](#)

## Child Resource Types

- › [Section 5.4.1, “Deployment”](#)
- › [Section 5.4.2, “Services”](#)
- › [Section 5.4.4, “Listeners”](#)
- › [Section 5.4.3, “Gateways”](#)
- › [Section 5.4.5, “Actions”](#)

## Connection Properties

**Table 5.8.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Naming Provider URL	The JNP URL with which to connect to the JBoss Application Server instance (e.g. jnp://127.0.0.1:1099).	yes	namingURL
Principal	The name of the principal (i.e. user) to authenticate.	no	principal
Credentials	The credentials (i.e. password) that should be used to authenticate the principal.	no	credentials
JBoss Home Directory	The absolute path to the directory where JBossAS is installed (e.g. /opt/jboss-4.2.2.GA).	yes	jbossHomeDir

Name	Description	Required	Internal Name
Configuration Path	The path to the configuration directory under which this instance operates (e.g. /opt/jboss-4.2.2.GA/server/default); if the path is not absolute, then it will be resolved relative to {jbossHomeDir}.	yes	configurationPath
Configuration Set	The name of the server configuration (e.g. minimal, default, or all); if not specified, it will default to the last path component of {configurationPath}.	no	configurationSet

## Metrics

Table 5.9. Metrics

Name	Type	Description	Internal Name
Message Count (Successful)	measurement	Overall Successful Message Count.	SuccessfulMessageCount
Message Count (Total)	measurement	Total Message Count.	TotalMessageCount
Message Counts (Failed)	measurement	Failed Message Count.	FailedMessageCount
Processed Bytes	measurement	Overall Bytes Processed.	ProcessedBytes
LastSuccessfulMessage Date	trait	Last Successful Message Date.	LastSuccessfulMessageDate
Last Failed Message Date	trait	Last Failed Message Date.	LastFailedMessageDate



### Note

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

## Configuration Properties

none

## Operations

Table 5.10. Metrics

Name	Description
Reset Counts	Reset the overall counter.

**Table 5.11. Package Types**

Name	Category	Description
Jar Library	Deployable	Library Jar files deployed in JBoss AS.

### 5.4.1. Deployment

#### Overview

**Table 5.12. Overview**

Description:	Metrics for Deployments.
Singleton:	no
Plugin:	JBossESB

#### Parent Resource Types

» [Section 5.4. "ESB Service"](#)

#### Child Resource Types

none

#### Connection Properties

**Table 5.13.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Deployment	The deployment name.	yes	deployment
Extension		yes	extension

#### Metrics

**Table 5.14. Metrics**

Name	Type	Description	Internal Name
Deployment Type	trait	Type of deployment.	Name
.esb State String	trait	Current state of the ESB.	StateString
.esb State	trait	Numeric value of the state of the ESB deployment.	State



#### Note

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



## Configuration Properties

none

## Operations

**Table 5.15. Operations**

Name	Description
Start deployment	Start the deployment.
Stop deployment	Stop the deployment.

**Table 5.16. Package Types**

Name	Category	Description
ESB Package	Deployable	

## 5.4.2. Services

### Overview

**Table 5.17. Overview**

Description:	Services.
Singleton:	no
Plugin:	JBossESB



### Note

Services are the services available within a deployment.

## Parent Resource Types

➤ [Section 5.4, “ESB Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 5.18.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Deployment	The deployment name.	yes	deployment
Service Name	The service name.	yes	serviceName

Name	Description	Required	Internal Name
Category Name	The service category name.	yes	categoryName

## Metrics

**Table 5.19. Metrics**

Name	Type	Description	Internal Name
Message Count	trait	Type of deployment.	Name
Message Count (avg)	trait	Current state of the ESB.	StateString
Overall Bytes	trait	Numeric value of the state of the ESB deployment.	State
Overall Bytes Processed	trait	Numeric value of the state of the ESB deployment.	State
Overall Bytes Failed	trait	Numeric value of the state of the ESB deployment.	State
Overall Service Time Processed	trait	Numeric value of the state of the ESB deployment.	State



### Note

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

## Configuration Properties

none

## Operations

**Table 5.20. Operations**

Name	Description
Reset the message counter	Reset the message counter.

## Package Types

none

### 5.4.3. Gateways

#### Overview

**Table 5.21. Overview**

Description:	Gateways.
Singleton:	no
Plugin:	JBossESB



## Note

Gateway configuration shows the config of the listener.

## Parent Resource Types

» [Section 5.4, “ESB Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 5.22.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Service Category	The service category of the listener.	yes	serviceCategory
Listener Name	The name of the listener.	yes	listenerName
Deployment Name	The name of deployment.	yes	deploymentName

## Metrics

**Table 5.23. Metrics**

Name	Type	Description	Internal Name
Lifecycle State	trait	Lifecycle State.	LifeCycleState
Maximum Number of Threads	trait	Maximum number of threads.	maxThreads
Service Category	trait	Service Category.	target-service-category
Service Description	trait	Service Description.	target-service-description
Service Name	trait	Service Name.	target-service-name



## Note

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

## Configuration Properties

none

## Operations

**Table 5.24. Operations**

Name	Description
Start listener	Start the listener.
Stop listener	Stop the listener.

**Table 5.25. Package Types**

Name	Category	Description
ESB Package	Deployable	

### 5.4.4. Listeners

#### Overview

**Table 5.26. Overview**

Description:	Listeners.
Singleton:	no
Plugin:	JBossESB



#### Note

Listener configuration shows the config of the listener.

#### Parent Resource Types

» [Section 5.4, “ESB Service”](#)

#### Child Resource Types

none

#### Connection Properties

**Table 5.27.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Service Category	The service category of the listener.	yes	serviceCategory
Listener Name	The name of the listener.	yes	listenerName

Name	Description	Required	Internal Name
Deployment Name	The name of deployment.	yes	deploymentName

## Metrics

**Table 5.28. Metrics**

Name	Type	Description	Internal Name
MEP	trait	Type of deployment.	mep
Lifecycle State	trait	Lifecycle State.	LifeCycleState
Maximum Number of Threads	trait	Maximum number of threads.	maxThreads
Start Date	trait	Start Date.	StartDate
Service Category	trait	Service Category.	service-category
Service Description	trait	Service Description.	service-description
Service Name	trait	Service Name.	service-name



### Note

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

## Configuration Properties

none

## Operations

**Table 5.29. Operations**

Name	Description
Start listener	Start the listener.
Stop listener	Stop the listener.

## Package Types

none

### 5.4.5. Actions

#### Overview

**Table 5.30. Overview**

Description:	Actions.
Singleton:	no
Plugin:	JBossESB

**Note**

Actions are the actions executed within a service.

**Parent Resource Types**

- » [Section 5.4, “ESB Service”](#)

**Child Resource Types**

none

**Connection Properties****Table 5.31.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Action Name	The action name.	yes	actionName

**Metrics****Table 5.32. Metrics**

Name	Type	Description	Internal Name
Message Count	measurement		overallMessagesCount
Message Count (avg)	measurement		overallMessagesCountMinute
Messages Failed	measurement		failedProcessedCount
Messages Failed (avg)	measurement		failedProcessedCountMinute
Messages Successfully Processed	measurement		successProcessedCount
Messages Successfully Processed (avg)	measurement		successProcessedCountMinute
Overall Bytes	measurement		overallBytesProcessed
Overall Bytes Processed	measurement		bytesSuccessful
Overall Bytes Failed	measurement		overallBytesFailed
Processing Time	measurement		processingTime

**Note**

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

**Configuration Properties**

none

## Operations

none

## Package Types

none

## 5.5. ESB 5 Service

### Overview

**Table 5.33. Overview**

Description:	Overall metrics for JBoss ESB 5.
Singleton:	yes
Plugin:	JBossESB5

### Parent Resource Types

- [Section 2.2, “JBossAS 5.x Server and JBoss EAP 5.x”](#)

### Child Resource Types

- [Section 5.5.1, “Deployment”](#)
- [Section 5.5.2, “Services”](#)
- [Section 5.5.4, “Listeners”](#)
- [Section 5.5.3, “Gateways”](#)
- [Section 5.5.5, “Actions”](#)

### Connection Properties

**Table 5.34.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Naming Provider URL	The JNP URL with which to connect to the JBoss Application Server instance (e.g. <code>jnp://127.0.0.1:1099</code> ).	yes	namingURL
Principal	The name of the principal (i.e. user) to authenticate.	no	principal

Name	Description	Required	Internal Name
Credentials	The credentials (i.e. password) that should be used to authenticate the principal.	no	credentials
JBoss Home Directory	The absolute path to the directory where JBossAS is installed (e.g. /opt/jboss-4.2.2.GA).	yes	jbossHomeDir
Configuration Path	The path to the configuration directory under which this instance operates (e.g. /opt/jboss-4.2.2.GA/server/default); if the path is not absolute, then it will be resolved relative to {jbossHomeDir}.	yes	configurationPath
Configuration Set	The name of the server configuration (e.g. minimal, default, or all); if not specified, it will default to the last path component of {configurationPath}.	no	configurationSet

## Metrics

**Table 5.35. Metrics**

Name	Type	Description	Internal Name
Message Count (Successful)	measurement	Overall Successful Message Count.	SuccessfulMessageCount
Message Count (Total)	measurement	Total Message Count.	TotalMessageCount
Message Counts (Failed)	measurement	Failed Message Count.	FailedMessageCount
Processed Bytes	measurement	Overall Bytes Processed.	ProcessedBytes
LastSuccessfulMessage Date	trait	Last Successful Message Date.	LastSuccessfulMessageDate
Last Failed Message Date	trait	Last Failed Message Date.	LastFailedMessageDate



### Note

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

## Configuration Properties



none

## Operations

**Table 5.36. Metrics**

Name	Description
Reset Counts	Reset the overall counter.

**Table 5.37. Package Types**

Name	Category	Description
Jar Library	Deployable	Library Jar files deployed in JBoss AS.

### 5.5.1. Deployment

#### Overview

**Table 5.38. Overview**

Description:	Metrics for Deployments.
Singleton:	no
Plugin:	JBossESB5

#### Parent Resource Types

» [Section 5.5, “ESB 5 Service”](#)

#### Child Resource Types

none

#### Connection Properties

**Table 5.39.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Deployment	The deployment name.	yes	deployment
Extension		yes	extension

#### Metrics

**Table 5.40. Metrics**

Name	Type	Description	Internal Name
Deployment Type	trait	Type of deployment.	Name

Name	Type	Description	Internal Name
.esb State String	trait	Current state of the ESB.	StateString
.esb State	trait	Numeric value of the state of the ESB 5 deployment.	State



### Note

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

## Configuration Properties

none

## Operations

Table 5.41. Operations

Name	Description
Start deployment	Start the deployment.
Stop deployment	Stop the deployment.

Table 5.42. Package Types

Name	Category	Description
ESB Package	Deployable	

## 5.5.2. Services

### Overview

Table 5.43. Overview

Description:	Services.
Singleton:	no
Plugin:	JBossESB5



### Note

Services are the services available within a deployment.

## Parent Resource Types

✱ [Section 5.5, “ESB 5 Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 5.44.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Deployment	The deployment name.	yes	deployment
Service Name	The service name.	yes	serviceName
Category Name	The service category name.	yes	categoryName

## Metrics

**Table 5.45. Metrics**

Name	Type	Description	Internal Name
Message Count	trait	Type of deployment.	Name
Message Count (avg)	trait	Current state of the ESB.	StateString
Overall Bytes	trait	Numeric value of the state of the ESB 5 deployment.	State
Overall Bytes Processed	trait	Numeric value of the state of the ESB 5 deployment.	State
Overall Bytes Failed	trait	Numeric value of the state of the ESB 5 deployment.	State
Overall Service Time Processed	trait	Numeric value of the state of the ESB 5 deployment.	State



### Note

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

## Configuration Properties

none

## Operations

**Table 5.46. Operations**

Name	Description
Reset the message counter	Reset the message counter.

## Package Types

none

### 5.5.3. Gateways

#### Overview

Table 5.47. Overview

Description:	Gateways.
Singleton:	no
Plugin:	JBossESB5



#### Note

Gateway configuration shows the config of the listener.

## Parent Resource Types

» [Section 5.5, “ESB 5 Service”](#)

## Child Resource Types

none

## Connection Properties

Table 5.48.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Service Category	The service category of the listener.	yes	serviceCategory
Listener Name	The name of the listener.	yes	listenerName
Deployment Name	The name of deployment.	yes	deploymentName

## Metrics

Table 5.49. Metrics

Name	Type	Description	Internal Name
Lifecycle State	trait	Lifecycle State.	LifeCycleState
Maximum Number of Threads	trait	Maximum number of threads.	maxThreads
Service Category	trait	Service Category.	target-service-category

Name	Type	Description	Internal Name
Service Description	trait	Service Description.	target-service-description
Service Name	trait	Service Name.	target-service-name



### Note

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

## Configuration Properties

none

## Operations

Table 5.50. Operations

Name	Description
Start listener	Start the listener.
Stop listener	Stop the listener.

Table 5.51. Package Types

Name	Category	Description
ESB Package	Deployable	

## 5.5.4. Listeners

### Overview

Table 5.52. Overview

Description:	Listeners.
Singleton:	no
Plugin:	JBossESB5



### Note

Listener configuration shows the config of the listener.

## Parent Resource Types

- » [Section 5.5, “ESB 5 Service”](#)

## Child Resource Types

none

## Connection Properties

Table 5.53.

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Service Category	The service category of the listener.	yes	serviceCategory
Listener Name	The name of the listener.	yes	listenerName
Deployment Name	The name of deployment.	yes	deploymentName

## Metrics

Table 5.54. Metrics

Name	Type	Description	Internal Name
MEP	trait	Type of deployment.	mep
Lifecycle State	trait	Lifecycle State.	LifeCycleState
Maximum Number of Threads	trait	Maximum number of threads.	maxThreads
Start Date	trait	Start Date.	StartDate
Service Category	trait	Service Category.	service-category
Service Description	trait	Service Description.	service-description
Service Name	trait	Service Name.	service-name



### Note

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

## Configuration Properties

none

## Operations

Table 5.55. Operations

Name	Description
Start listener	Start the listener.
Stop listener	Stop the listener.

## Package Types

none

## 5.5.5. Actions

## Overview

**Table 5.56. Overview**

Description:	Actions.
Singleton:	no
Plugin:	JBossESB5



### Note

Actions are the actions executed within a service.

## Parent Resource Types

» [Section 5.5, “ESB 5 Service”](#)

## Child Resource Types

none

## Connection Properties

**Table 5.57.**

Name	Description	Required	Internal Name
Object Name		yes	objectName
Name Template		yes	nameTemplate
Description Template		yes	descriptionTemplate
Action Name	The action name.	yes	actionName

## Metrics

**Table 5.58. Metrics**

Name	Type	Description	Internal Name
Message Count	measurement		overallMessagesCount
Message Count (avg)	measurement		overallMessagesCountMinute
Messages Failed	measurement		failedProcessedCount
Messages Failed (avg)	measurement		failedProcessedCountMinute
Messages Successfully Processed	measurement		successProcessedCount
Messages Successfully Processed (avg)	measurement		successProcessedCountMinute
Overall Bytes	measurement		overallBytesProcessed
Overall Bytes Processed	measurement		bytesSuccessful
Overall Bytes Failed	measurement		overallBytesFailed
Processing Time	measurement		processingTime



## Note

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

### **Configuration Properties**

none

### **Operations**

none

### **Package Types**

none